funding, and achieving effective implementation undoubtedly remain. Conference proceedings will be available later in the year.

NIGEL BRUCE
Senior lecturer in public health

Liverpool University,
Liverpool L69 3BX

PETER FLYNN
Health strategy manager

North West Regional Health Authority,
Liverpool L3 6AL

JULIE HOTCHKISS
Acting director

Liverpool Public Health Observatory,
Liverpool

JANE SPRINGETT
Director

Centre for Health Studies,
Liverpool John Moores University,
Liverpool L3

ALEX SCOTT-SAMUEL
Consultant in public health

Liverpool Health Authority,
Liverpool

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- 2 Ashton J. *Healthy cities*. Milton Keynes: Open University Press, 1992.
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Epidemiology is not the only science

EDITOR,—Jan P Vandenbroucke predicts a similar academic downfall for the "new public health" as he claims befell its 19th century predecessor, the hygienic and sanitarian movement.¹ He argues that by wishing to divorce themselves from "the erstwhile star discipline, epidemiology" some proponents of the new public health are leading the fledgling movement away from "good science" towards mere political controversy and the "repetition of old style rhetoric," which will be the undoing of the new movement. While the proponents of the new public health may have overemphasised the newness of their societal view of the causes of disease, Vandenbroucke is unduly restrictive in seeing epidemiology as the science of public health. He seems to equate any criticism of, or movement away from, epidemiology as a movement away from science, rather than part of a debate about appropriate forms of knowledge for public health policy.² This fails to recognise that public health research and practice draw on a wide range of scientific disciplines for concepts, methods, and knowledge—including epidemiology, management science, economics, sociology, psychology, anthropology, statistics, marketing, and a number of clinical disciplines. It is divisive and unhelpful to regard any one of these as the "pilot discipline," as Vandenbroucke regards epidemiology. Furthermore, it does scant justice to the fact that public health activity is no longer, if it ever was, the exclusive domain of medicine or of epidemiologists (medical or non-medical).

NICHOLAS MAYES
Director of health service research

King's Fund Institute,
London W2 4HT

- 1 Vandenbroucke JP. New public health and old rhetoric. *BMJ* 1994;308:994-5. (16 April.)
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Social sciences provide a framework for epidemiology

EDITOR,—Given the rhetorical style of Jan P Vandenbroucke's blast against a variety of targets, it is difficult to identify the substance of his criticism of the "new public health."¹ I will therefore pick out three things he seemed to be saying.

Firstly, he says that "many proponents of the new public health wish to divorce themselves from" epidemiology. This, I think, is a misreading

of the current critique of classical ("clinical") epidemiology. Rather than bury this "star discipline," the intention is to reapply it as a powerful set of investigative tools within a framework of understanding provided by social sciences. This will not detract from hard data but will allow more relevant and searching questions to be asked—for example, does unemployment cause coronary heart disease? does low income cause cancer? These questions are scientific, and the standards of scientific evidence are applicable. But causation here is unlikely to be of an all or nothing type; rather, concepts such as component causation, chains of causation, and effect modification² are necessary. The simple fact is that a clinical epidemiology that has overconcentrated on "downstream" biological factors has not proved powerful (explanatory) enough.

Secondly, he seems to take the historical disappearance of previous incarnations of the new public health as proof of the emptiness of their various critiques of medicine. This view says nothing about the truth of such critiques; it simply passively accepts the outcomes of a history forged by vested interests and power play. While the academy (with exceptions) found it easier to keep its analysis of health and disease in a clinical and individual perspective, the truth of the matter was (and is) that the determinants of health are overwhelmingly based on the way we live: the way we act on our society and environment and the way it offers us opportunities and constraints regarding physical, mental, and social health. The wider understanding of this reality may threaten the role of a reductionist clinical medicine and threaten its proponents' self image. Consequently, continued debate on these matters is certain.

Finally, the conceptual separation of analysis and knowledge from political choice is a comforting but naive position for public health, as it is for the "hard" physical and biological sciences.³

JIM CONNELLY
Senior lecturer in public health medicine

Division of General Practice and Public Health Medicine,
University of Leeds,
Leeds LS2 9LN

- 1 Vandenbroucke JP. New public health and old rhetoric. *BMJ* 1994;308:994-5. (16 April.)
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Training and reaccreditations in general practice

EDITOR,—Once again the Royal College of General Practitioners has sold the profession down the river.¹ When questioned about the demands of the government quangos of family health services authorities and trusts that general practitioners should spend 11 years in training to meet the quango's requirements the president of the college agrees that "general practitioners should be brought up to speed to cope with the modern situation."

The half of graduates who are women would have to be fully trained before having children. As locums would have to be accredited in the future they would have to follow a five year course of study before they would be employable, even part time. Any doctor returning from abroad might also have problems in satisfying the requirement for having followed an agreed course of study over the previous five years in order to be reaccredited. The proposal also means that general practitioners could replace expensive partners with cheaper trainees, now available for another two years. This would suit the government as its bills would be reduced and general practitioners would end up with a lower pension.

With regard to the reaccreditation, either it is so easy that everybody achieves it (in which case why do it?) or people are intended to fail. Once doctors fail they become unemployable. We are faced with doctors aged 50 and over failing to be reaccredited and having no means of earning a living. As the family health services authorities also want reaccreditation of practices, presumably one requirement would be that all general practitioners were accredited: soon we will all be on five year contracts. Would a bank lend money to build a surgery if you were on a five year contract? We would be working in a high risk occupation as opposed to a secure one, and our salary should reflect this. If a manager of an NHS trust, who may have a degree, is paid £70 000 plus perks for a 40 hour week, how much should a general practitioner, after 11 years' training and on a five year contract and working 70 or more hours, be paid? We also must insist that general practitioners could retire on a full pension from the age of 55 as it is not right to ask those of 60 or over to sit examinations and risk being expelled from the profession every five years.

I trust that our leaders will address the problem of retirement and correct remuneration for the increased risk in the profession. We know, however, that they will agree to everything and then say afterwards, "Oh dear, we didn't realise. And they did say there would be new money."

G C S REYNOLDS
General practitioner

Priority Fields Surgery,
Huntingdon PE18 6RJ

- 1 Court C. NAHAT calls for more GP training. *BMJ* 1994;308: 877. (2 April.)

Increase in parasuicide in Scotland

EDITOR,—Peter Beck and colleagues report an increase in the absolute number of men, and the ratio of men to women, admitted for self poisoning in South Glamorgan during 1986-92.¹ The increased mortality in the decade after an admission for self poisoning^{2,3} or other form of deliberate self harm¹ is well recognised.

As part of a wider review of suicide being undertaken in our department the information and statistics division of the Directorate of Information Services provided us with the annual numbers of male and female patients discharged after parasuicide (E950-959) in Scotland for 1982-92. Both the absolute number of such discharges and the ratio of males to females have risen (table).

Possible explanations for the increase in admissions and change in sex ratio include altered clinical practice, more accurate coding of discharge forms, and a true change in the epidemiology of parasuicide. Deaths by suicide among men increased in England and Wales and in Scotland during the 1980s.⁴ It is unclear whether the increases in absolute numbers and change in the sex ratio of parasuicide in Scotland and self poisoning in Wales are part of the same process as the increase in completed suicide among men.

Numbers of people resident in Scotland who were discharged from hospital after parasuicide, 1982-92

	Male	Female	Total	Male:female ratio
1982	3 897	5 670	9 567	0.69
1983	3 675	5 400	9 075	0.68
1984	4 013	5 608	9 621	0.71
1985	4 046	5 371	9 417	0.75
1986	3 850	5 484	9 334	0.70
1987	4 209	5 435	9 644	0.77
1988	4 136	5 519	9 655	0.75
1989	4 266	5 441	9 707	0.78
1990	4 664	5 759	10 423	0.81
1991	4 999	5 926	10 925	0.84
1992	5 533	6 312	11 845	0.88

Further study of these epidemiological changes is required.

CAMERON STARK
Senior registrar in public health medicine

HELEN SMITH
Locum consultant in public health medicine

Department of Public Health,
Argyll and Clyde Health Board,
Paisley PA2 7BN

DAVID HALL
Senior registrar in psychiatry
Mental Welfare Commission for Scotland,
Edinburgh EH3 7RN

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Fibrin glue

EDITOR,—H I Atrah's editorial on fibrin glue draws attention to the limited use of fibrinogen-thrombin formulations in surgical procedures, especially in Britain and the United States, even though such formulations have been commercially available since the early 1970s.¹ The explanation forwarded for this is "concern about safety and unawareness of potential applications."

I do basic research into fibrinogen and have noticed more than 1000 publications in the Medline database referring to the clinical uses of fibrin sealants in a wide range of surgical procedures. Though many of these are single case reports or reports of small series of patients, most describe the suitability of fibrin sealant for the application under investigation (haemostasis, adhesion, air leakage, gut or nerve anastomosis, sealing, etc). Unfortunately, few controlled trials have included sufficient numbers of patients and used objective end points (for example, a reduction in blood used or lost during a defined cardiothoracic procedure) to test the cost-benefit value of fibrin sealant.

"Concern about safety" weighed heavily with the Food and Drug Administration's decision to limit fibrinogen concentrates prepared from many hundreds of pooled plasma donations from the American market in the early 1970s. Viral inactivation by ultraviolet irradiation or detergent cleansing still has not restored total confidence in pooled plasma preparations, especially as companies may ignore guidelines² and new infective agents, such as HIV-c, are being recognised.

The shift from bovine to human thrombin has indeed avoided the most apparent problems associated with antigenic reactivity and induction of immune haemorrhagic diatheses but has not removed the risk introduced by thrombin as a thrombotic agent. The safety issues associated with bovine aprotinin, a plasmin inhibitor added to prolong the in vivo life of the fibrin sealant, was not addressed. Like bovine thrombin, bovine aprotinin is a source of foreign protein which may induce antigenic responses or represent a potential source of diseases derived from cattle, such as bovine spongiform encephalopathy or bovine immune deficiency.

These safety issues are not really resolved by autologous donation (cryoprecipitation or ethanol precipitation of fibrinogen) as suggested, since currently there are no autologous replacements for thrombin or aprotinin. This may be partially solved when approved supplies of recombinant materials are available. Currently available sealants still cannot be given a totally clean bill of health.

I contend that in addition to the lack of general

availability the reason why fibrin sealants have not entered surgical use in the United States or Britain to the extent that the literature predicted is that the present formulations are inconvenient to prepare and deliver. The commercial freeze dried fibrinogen concentrates are often difficult to dissolve, occasionally clot before use, are difficult to deliver in a controlled fashion that does not result in repeated blockage of the needle or spray, and deliver a sealant that is too concentrated and difficult to manipulate. Cryoprecipitation results in a preparation of variable concentration and performance and, for autologous donation, requires at least 24 hours' preparation time and still depends on exogenous thrombin.

The benefits of fibrin sealants to surgery will not be fully realised until the issues of convenience of preparation (by blood bank or surgeon) and reliable delivery are solved.

S A CEDERHOLM-WILLIAMS
Director

Oxford Bioresearch Laboratory,
Oxford Science Park,
Oxford OX4 4GA

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Long acting methods of contraception

EDITOR,—Who could disagree with Lawrence Mascarenhas's statement that long acting contraceptive methods have much to offer?¹ One of these, the six capsule subdermal implant releasing levonorgestrel, was introduced to Britain last autumn. It seemed to be immediately disowned by all agencies that fund services. This was unfortunate. It is a highly effective, safe, and readily reversible long term method of contraception and could have a real impact on reducing unwanted pregnancies. Continuation rates are acceptable compared with those for oral contraception, and "user error" is not a feature. This is crucially important. Finally, although the implant is more expensive than most other methods, there should not be serious doubt about its cost effectiveness with appropriate use.

Doctors should therefore be in a position to provide and promote the implant. More importantly, it should be easily accessible to women. Yet, as Mascarenhas points out, "wranglings" stand in the way of its effective provision. The question is not whether the NHS should provide the implant. This is beyond doubt. The argument is about who should provide the method. In the brave new health service no one body has accepted responsibility for this.

Should family health services authorities fund general practitioners to provide the implant? Should district health authorities fund community trusts to provide it in clinics? The answer to both these questions has to be "yes." General practitioners are responsible for providing the bulk of family planning services. Surely most of them would wish to provide a full range of contraceptive services. Government policy clearly states that people should have a choice of outlet and that community services should offer complementary, more specialised services that target the young.^{2,3} The cost would probably not be greatly different whichever service provided the implant. An appreciable and finite minority of women would choose the implant; if it was not available they would probably still incur costs to reproductive health services.

The demise of the implant, before it has even had a chance to prove itself, seems possible. The responsibility for this must lie with those who have underfunded the health service, created divisions within it, and surrendered to "short termism."

Clinicians can only share the pain, anger, disappointment, and powerlessness of their women patients.

MARGARET THOMAS
Coordinator of family planning and young persons services
Lichfield,
Staffordshire

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- 2 Department of Health. *The health of the nation*. London: DoH, 1992.
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Ethics and euthanasia

Opinion polls not decisive

EDITOR,—The emotive tone and inaccurate reporting in Madeleine Simms's letter are good examples of why the objective, dispassionate, and rigorous House of Lords Select Committee on Medical Ethics unanimously rejected euthanasia.¹ Simms states that in a survey carried out in April last year by National Opinion Polls "79% wanted the law to be changed to legalise voluntary euthanasia," and she then quotes correctly from the question asked. But the question asked of the public began, "Some people say that the law should allow adults to receive medical help to a peaceful death."² There was no mention of voluntary euthanasia—indeed, the question could be referring to good palliative care. The Lords committee probed this point with those members of the Voluntary Euthanasia Society who gave evidence to it; in its report the committee concluded that "the results of the public opinion polls which the [Voluntary Euthanasia Society] . . . cited are far from decisive."³

The issue of the *BMJ* containing Simms's letter also contains a news article from the Netherlands on the policing of cases of euthanasia there.⁴ The number of cases investigated by local prosecutors is given and was "one in 1991." We do not know how many cases of euthanasia took place in the Netherlands in 1991, but we do know from a report by the Dutch government that in 1990 there were 2300 cases of active termination of life by a doctor at the request of the patient, 400 cases of suicide assisted by a doctor, and more than 1000 cases of "life terminating acts without explicit request."⁵ Does the investigation of one case or thereabouts give any reassurance in the light of these numbers?

Fourteen members of the House of Lords, including two doctors and a nurse, spent a year thoroughly investigating the situation in Britain, the Netherlands, and elsewhere. Their conclusions carry a great deal more weight than those of Simms.

ANDREW FERGUSSON
Chairman

Healthcare Opposed to Euthanasia,
London SE11 5TN

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Legislation will not solve problem

EDITOR,—I was very sad to see the letter by Madeleine Simms.¹ So much has been written on voluntary euthanasia by people who are actively involved with those who are dying; it is sad to see that there is still this polarisation of views and no movement forward.

There will always be the occasional problem, but