A culture of long service and low turnover of staff exists, which means that skill mix must be developed with existing staff, with room for manoeuvre only when staff leave. The painstaking Newcastle *Nursing Skill Mix Review* showed that each group of staff has a unique cluster of skills that contributes to the work of the team.² The skills and contribution of each staff group must be explicitly valued and practitioners encouraged to expand the scope of their practice. The potential for delegation within each aspect of the workload can be explored, and it must be remembered that delegation brings both benefits and responsibilities. Different styles of delegation will suit different people.

Delegation provides opportunities for clerical and reception staff to share the challenges and rewards of providing clinical care (for example, venesection and simple clinical measurements). The development of relevant national vocational qualifications should ensure suitable training.⁷ No one should be asked to take on skilled tasks without adequate training and support.

Scope exists for reallocating responsibilities between almost every group within the primary care team. The most debated examples entail reallocation from general practitioners to practice nurses, and from district nurses and health visitors to health care assistants. The Burlington randomised trial of nurse practitioners in Canada showed that they performed as well as general practitioners in dealing with a range of tracer conditions.⁸ The nurses, however, saw only half as many patients as the doctors.

Similarly, Stillwell, who pioneered the nurse practitioner role in Britain, saw patients at 20 minute intervals, which is more than twice the average consultation time of general practitioners.⁹ Nurse practitioners could therefore be the more expensive option given their level of remuneration (up to £23 750) and their average hours of work (37.5/week). On the other hand, much has been achieved by practice nurses in the systematic care of chronic disease in primary care, and considerable potential exists to develop this work further.¹⁰ The government's apparent reluctance to introduce nurse prescribing, however, makes such developments more difficult.

The introduction of generic community nurse training under project 2000 seems to threaten the traditional roles of district nurses and health visitors. This contrasts oddly with the presence of increasing numbers of nurse specialists in the community. These include community psychiatric nurses, stoma care nurses, diabetic and asthma liaison nurses, and palliative care nurses. Each new post generates new questions of effectiveness and efficiency because of overlapping roles.

As family health services authorities assume responsibility for commissioning community nursing services there is greater scope for increasing the integration of the primary care team, with more sharing of objectives and less wasteful duplication of records. Nurses need to retain adequate professional support under any new arrangements, but there is much to gain.

In the face of so much contentious debate and uncertainty all innovation and change must be properly evaluated. In her excellent review Ridsdale has emphasised the importance of systematic research into the effects of alterations in skill mix in primary care and has proposed a series of detailed studies.¹ Only by measuring the effects of what we do can we move beyond a narrow cost cutting agenda and explore the potential of skill mix to improve our patients' care.

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New public health and old rhetoric

Social explanations of illness won't go away

There is a discipline in medicine that over the past 200 years has been known by various names: sanitary medicine, public hygiene, public health, social medicine, and community medicine. Its newest incarnation proudly calls itself "the new public health."¹

Academically the discipline was buried repeatedly because it produced "mere rhetoric."^{2,3} The first time this happened was before the turn of the 19th century. The successful hygienic and sanitarian movement of the middle of that century divorced itself from bacteriology, the upcoming science of the 1880s, because bacteriology could not really explain why epidemics happened at certain places and certain times and to certain people. The members of the movement had a point, in retrospect, but their adamant opposition to the new science led to their academic downfall and even ridicule. Hygienism was seen as only "soft" rhetoric, while "hard" bacteriological science would give the real explanations. Nobody had proved hygienists wrong, it was just that nobody

was interested in their kind of argument any more.⁴ Chairs and institutes of hygiene were turned into chairs and laboratories of bacteriology.

In the first half of the 20th century infectious disease epidemiology remained as a successful daughter of the parent discipline of bacteriology. Some nostalgic "old hands" made the points of hygienism over again, but their reservations did not become reputable.^{5,6} The hygienic movement arose from its ashes in the 1950s and 1960s. "Chronic diseases" (later, "diseases of affluence") became the new challenge, and the global community approach, which was believed to have been so successful in eradicating contagious disease, was the preferred solution. Mirroring the hygienists of the previous century, the proponents of this approach believed that no good could come from curative, clinical medicine because it did not attack the problem at its roots.⁷ In this adventure there was a glorious role for epidemiology as the "intelligence service" of preventive public health.⁸

By the late 1970s, however, disappointment was universal. Departments of community medicine, social medicine, and public health were seen as the "departments of miscellaneous medicine," the soft underbelly of the medical school. They produced socially desirable talk but no hard data. That was in stark contrast to the pilot discipline, epidemiology, which had become widely successful as a method. Some of the talk about the lack of influence of clinical medicine on people's health proved plainly wrong.⁹ Chairs of social medicine, community medicine, and public health were turned into chairs of epidemiology with an aetiological, methodological, or clinical orientation. Again some older hands were uneasy that this methodological and clinical epidemiology had lost the real substance, the basic aim of serving the people, and had become sophistry.¹⁰⁻¹² Proponents of epidemiology retorted in two ways. Firstly, they directly attacked some of the fancier visions of public health oriented towards prevention—for example, they described the Lalonde report on the health of Canadians as epidemiology going wild and losing its medical and scientific basis. Secondly, they defended a division of tasks between scientists and political decision makers.¹³

Sooner than expected, we see a new movement arise from the latest ashes, calling itself the new public health.¹ Its phrasings have the flavour of the great tradition that seeks for the all embracing causes of disease in the fabric of our society. We read about "the interdependence of ecosystems and health systems" and about "reciprocal maintenance" (we should look after the things that look after us).¹ In a curious echo of last century's hygienic movement, the emergence of "new" infectious diseases like legionnaire's disease and AIDS is regarded as a failure of the curative model. More surprisingly, several proponents of the new public health want to divorce themselves from the erstwhile star discipline, epidemiology. To them epidemiologists have defected en masse to the arch enemy: the reductionist medical model. Thus in the minutes of a recent meeting we read that "Classical epidemiology and the medical model are institutionally powerfully entrenched."¹⁴ To remove the barriers to health the public needs to be empowered, and data on lay knowledge and beliefs should become equally valid as pseudo-objective numerical descriptions. This culminates in headlines like

"The problem with epidemiology" and "Understanding the whole."

To the sceptic, the "new" public health is a repetition of old style rhetoric, with the same stubborn tactics that will lead to a new academic downfall. As such, the young movement is highly controversial, especially in those departments of public health and community medicine that believe that good science should be the basis for public health action.

Still, one might wonder why these ideas keep arising. There will always be a legitimate branch of medicine that deals primarily with the health of groups in our society. (An essay on the roots of such a discipline, written in 1947 by the American historian and public health doctor George Rosen, is still worth reading, to whatever age of public health one belongs.¹⁵) In each new generation of doctors, however, this branch of medicine attracts not only analytical minds but also people who feel a strong personal vocation to improve health in society by attacking plain injustice. They are impatient with the distant attitude of science. Let their well meaning and ever re-emerging zeal be directed in good ways.

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Vascular disease: the next target for local molecular therapeutics

Reducing restenosis after angioplasty could be their first success

The resistance of atherosclerosis to conventional treatments reflects the complex pathogenesis of mature atheroma. The disease is diffuse, but the symptomatic lesions are often localised, and bypassing large stenosing plaques with vein grafts has been the mainstay of palliation. For the past 15 years, however, percutaneous transluminal coronary angioplasty has been used increasingly. In 1990 over 300 000 of these procedures were carried out in the United States¹ and about 8500 in Britain.² This number is still rising, but enthusiasm has been tempered by symptomatic restenosis in about one third of cases.³ Late recoil of the stretched vessel may contribute, but a rapid proliferation of vascular smooth muscle cells within the intima is the striking feature of restenosis, and this fibrocellular intimal hyperplasia has resisted all pharmacological interventions examined so far.³ Attention has turned to less conventional treatments, particu-

larly genetic manipulation of the arterial wall to alter its response to the injury induced by the balloon catheter. To distinguish this local approach from the use of gene therapy to correct inborn errors of metabolism we favour the term molecular therapeutics.

The restenotic lesion after angioplasty can be viewed as part of general healing and repair. Giving potent treatments systemically to modify this is likely to have systemic side effects, which local administration could circumvent. In preliminary studies, administration has been to the outside of vessels visualised directly, with vehicles such as pluronic gels being used to hold the agent of therapeutic potential in the vicinity for at least some hours.⁴ Although this is unlikely to be clinically useful, application from the luminal side is already possible through modified conventional catheters. The molecular therapeutic approach to restenosis requires