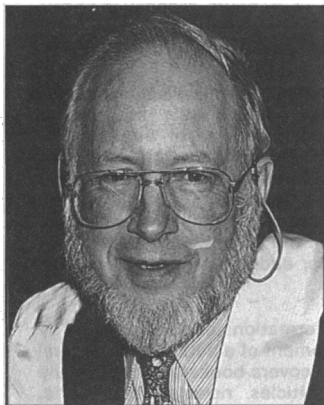


Reactive and proactive care: a crisis

JULIAN TUDOR HART



Introduction

I AM grateful to the College for this opportunity, at a time of crisis for our country, our profession, and our National Health Service, to follow the footsteps of Sir James Mackenzie in at least one respect; he was much given to speaking his mind.

He died two years before I was born, in what once seemed to me to be prehistory. I must admit I was rather put off by what I thought I understood of his reputation; the path from croft to Harley Street via Burnley, ending in the dubious company of knights and peers of the realm, seemed an inappropriate model.

The first time I really thought about him was when Kannel and Dawber referred to his concept of systematic longitudinal research into the earliest manifestations of disease. This inspired the Framingham project, from which most of our understanding of the natural history of coronary heart disease still derives. It is ironic that the ideas of a general practitioner inspired a research project with all the qualities of excellent observation, but none of the insights to be gained from giving help to sick people. Mackenzie's work, begun at the Institute of Clinical Research at St Andrews, was not continued by general practitioners, but resumed 40 years later by hands-off epidemiologists. Neither of Mackenzie's biographers^{1,2} seem to me to explain this paradox.

Proactive and reactive care

I am sure the answer lies in the innocent approach of Mackenzie, and indeed of earlier and succeeding generations of general practitioners, to the social structure in which they worked, above all the terms of medical trade as it then was. Of course, to refer to what went on in Harley Street, or even in Burnley, as trade rather than the disinterested exercise of scientific professionalism, was taboo in post-Victorian England; it is almost taboo now. That was the problem; Mackenzie had caught the bug of scientific curiosity, but most of his colleagues were still

in trade, with the most powerful in what was then and still remains the red light district of our profession — Harley Street. In terms of outcome if not process, there was far less difference between the biggest and the smallest doctors of that time than most people dared to imagine.

Population

Ignorant of Mackenzie, but inspired by ideas about epidemiology adapted to the inside rather than stuck on the outside of clinical medicine, I took over the core of the Glyncoerrwg practice in December 1961. By 1965 all but eight families in the village were registered with me, a nominal population of about 2200, including about 300 from other villages in the Upper Afan Valley. Thus it remained until 1974, a captive population with a captive doctor. Since 1974 I have had help from colleagues, first from a succession of research assistants provided by the Medical Research Council, later also from a series of trainees.

In September 1989, 1790 people were registered with the Glyncoerrwg practice. This was an accurate figure, with no ghosts; we knew, because our age-sex register had been in continuous use since 1968, when we first introduced strategies of anticipatory care and active search for reversible risk factors for disease. Our original register contained about 2200 names, with perhaps 50 ghosts. Since then the population has declined from migration out of the area and a falling birth rate. From 1964 onwards we have kept the records of all patients who died (310 men and 248 women, 558 in all), or moved or otherwise transferred care (529 men and 578 women, 1107 in all). So far as possible we have tracked the lives of those who left, so that nearly all deaths in migrants out of the area are known.

My current aim is to enter into our VAMP computer summarized histories and all quantified data on blood pressure, smoking, body weight and cholesterol measurements for all our records, living and dead, and in or out of our community; a unique data set on the interaction between primary health workers and the whole of their population served, over a 23-year period from 1964 to 1987. It has already taken me nearly two years to enter data for the current population, and male deaths from 1964. I have not yet entered the same data for female deaths, or for male or female migrants out of the area. The data given here therefore relate only to males and omit migrants out of the area.

Reactive and proactive caseload

Starting in 1968 and finishing in 1970, the whole registered population of Glyncoerrwg aged 20–64 years was screened for high blood pressure.³ In subsequent years we extended this search to other age groups and to patients from other villages, and added systematic searches for other quantifiable and reversible risks: smoking, peak expiratory flow rate, body mass index, glycosuria or raised blood glucose in high risk groups, and high alcohol intake or evidence of social or biochemical damage from alcohol. Systematic search for and follow up of these seven conditions has been more or less fully applied since about 1979, by case finding within ordinary consultations rather than formal screening.

Diagnostic labels have been standardized throughout this period, with quantified definitions for all proactive diagnoses discussed except alcohol problems. These are still perceived in the same way as we perceive most reactive diagnoses, but the others are all quantified and therefore reproducible. High blood

J Tudor Hart, FRCGP, FRCP, general practitioner, Glyncoerrwg, West Glamorgan. The text is based on the 1989 James Mackenzie lecture which was delivered at the annual general meeting of the Royal College of General Practitioners held on 18 November 1989.

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pressure was defined as a mean of three pressures at or over 170/105 mmHg at age 40 years and over, or 160/100 mmHg under 40 years; obesity as a body mass index of 30 or more; asthma/chronic obstructive airways disease as a peak expiratory flow rate of 40% or more below expected values, or improving by 20% or more with salbutamol; high cholesterol as 6.6 mM or above; diabetes as glycosuria with haemoglobin A_{1c} over 8%; and heavy smoking as having ever smoked 30 or more cigarettes a day.

New cases detected among men for these seven proactive conditions are compared in Figure 1 with new cases of seven reactive conditions over the same periods: acute appendicitis, haematemesis or melaena, coronary thrombosis, cancers of the lung and gut, heart failure, stroke and dementia. Choice of these seven reactive conditions is obviously typical only of relatively infrequent major events, rather than the upper respiratory infections, musculoskeletal pains, and unhappiness which account for most reactive primary care. My reasons for these choices are first, that less life-threatening events were either not recorded in our summaries, or, as for example back pain and depression, were recorded incompletely; and secondly, that my intention is not to compare the relative volumes of reactive and proactive care (a difficult if not impossible task because of the wide overlap between these two categories) but to demonstrate the difference between their trajectories. Proactive care is rapidly expanding as early or presymptomatic reversible disease becomes more fully recognized, and will continue to do so once follow up is properly organized. Reactive care, on the other hand, is probably stable and may even decline, at least for major disease in younger age groups.

We have full records for only one four-year span before proactive policies began, but it seems clear that whereas new reactive cases declined slightly from 94 in 1964–67 to a mean of 86 in the other five four-year spans to 1987, new proactive cases rose from 193 to a mean of 303. This small decline in reactive care probably derives mainly from a diminishing population at risk, though improved health may have contributed to it, a question we are now studying with intense interest. The 57% increase in new cases for proactive care must be attributed chiefly to policies of active search, though rising patient expectations will have contributed. Changes in the size and age–sex composition of the population, which are not taken into account, should have led to understatement rather than exaggeration of this trend.

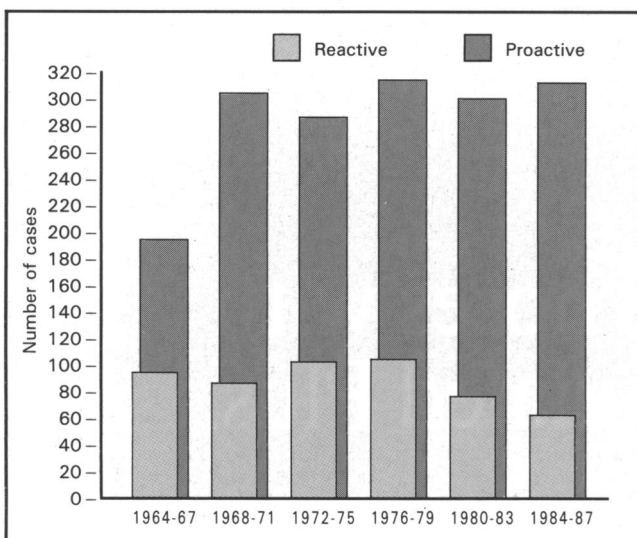


Figure 1. Newly recognized cases of seven proactive and seven reactive conditions among men over the period 1964–87.

Proactive caseload

Very generally speaking, reactive care responds episodically to symptomatic illness, in which continuing management, like initial contact, may partly or wholly depend on prompting by patient demand. For minor illness, reactive care is terminated by its often self-limiting nature; for major illness, reactive care tends to begin at a late stage when little more can be done, at least outside hospitals.

Proactive care, on the other hand, initiates often interminable processes of continued observation, education, and assistance, almost entirely at primary care level. Figure 2 shows the growth (as well as the improving control) of the group of treated hypertensive patients in Glyncoirwg from 1967 to 1982, in which planned three-monthly caseload quadrupled from 15 to 62. In 1989, our 1967 caseload has grown 13-fold to 199 hypertensives on three-monthly recall, mainly because of extension of treatment to the elderly. We also have 42 diabetics on six-monthly recall, and are expanding other contacts to include anticipatory care for another 532 with asthma or chronic obstructive airways disease, 229 with a serious weight problem, and 134 with alcohol problems. Seeds have been sown which are bound to grow unless resources dry up.

Contact rates

As measured by age-standardized mortality, infant and perinatal mortality, adult height, birthweight, and all other accepted health indices, the British people as a whole have been getting healthier throughout this century, though social differences in these indices have not diminished, and have probably increased. Reactive workload for major disease has therefore declined. General practitioners who either do not believe that proactive care is necessary or effective, or are convinced they are already doing it painlessly, without any need for planned targets or audit of their attainment, have been able to reduce the frequency of their contacts with their registered populations substantially.⁴ As contact rates have declined, these general practitioners have gained time, which can then be used to deepen each consultation, or take on other work.

Probably because of our policy of encouraging anticipatory care, our team in Glyncoirwg has not shared in this falling workload. From 1964 to 1972 our annual doctor–patient contact rate was 5.3 per head, with little variation from year to year. The practice took part in Williams' study of general practitioner workload in south Wales in 1966,⁵ and in the second national morbidity survey in 1970–71.⁶ Our contact rate was 7% below the mean for 11 south Wales coal-mining practices studied by Williams, but more than twice the mean for all practices in the national morbidity survey, which suggested not that our workload was atypical for a heavy industrial practice, but that the most overworked practices were not volunteering.⁷ Despite the huge increase in workload incurred by policies of proactive, anticipatory care, our mean contact rate from mid-1987 to mid-1989 remained at 4.8 per patient per year, roughly double the national average. The most reasonable conclusions to draw from this are first that social customs (including going to the doctor) die hard, and secondly that falling demand for reactive care has been offset by increasing provision of proactive care.

I have never believed that patients should be discouraged on any pretext from consulting their doctor or other primary health worker. Decisions to consult are complex, personal, and vulnerable to clumsy attempts to modify them either by economic, social, or administrative barriers. They are also precious, as they are the only means, in an otherwise authoritarian structure, for patients to express their own demands on the National Health Service. Above all, consultations prompted by personal choice provide more effective oppor-

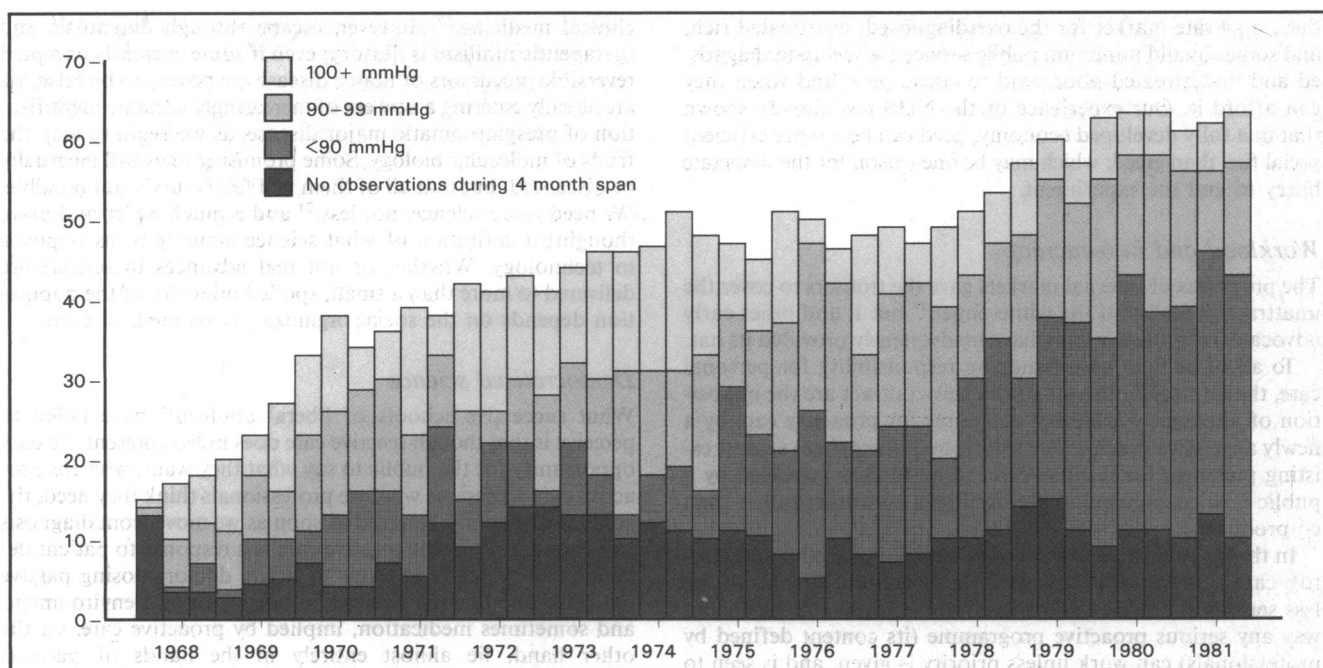


Figure 2. Caseload and diastolic (phase 5) control of all treated hypertensive patients aged 20-64 years over the period 1968-81.

tunities for proactive care than the apparently more efficient but in my experience usually less cost effective well-man and well-woman clinics and other formal call-up procedures. We run hypertension, diabetic, developmental and gynaecological clinics, but the core of our programme has always been, and will, I hope, remain, the expanded consultation prompted by patient demand.

Resources

It is now 16 years since Buchan and Richardson⁸ found a mean face-to-face consultation time of five minutes in their large study of general practitioners in Aberdeen, and set a mean of 10 minutes as a modest but realizable target for general practice. I first began timing myself in 1965, and found a mean face-to-face consultation time of seven minutes. This reached eight minutes in 1975, and 10 minutes in 1987, my last year in charge.

This understates the real expansion of consultation time, because it omits other staff. We began employing a nurse in 1966, and since then I have never worked without a nurse available to expand the consultation, mainly by adding proactive measures. Unfortunately we have never been able to quantify this, but a reasonable guess would be an additional mean three or four minutes of care per consultation. There is now a wealth of evidence to confirm what every general practitioner already knows; that compassionate, imaginative, accurate and therefore effective care needs far more time than most of us have.^{9,10} Measures of efficiency related to process rather than outcome will reduce time available for patients as surely as they do when applied to the production of commodities.

There has also been a huge expansion of administrative time given to care of the practice itself and reviews of the practice population, rather than to face-to-face personal care. This would not have been possible without assistance from the Medical Research Council since 1974, giving us enough extra staff to allow redeployment to an improved service whenever research demands permitted. We made no use of computers until 1988, and the hundreds of hours spent in hand-sorting written records, and in conversion from Lloyd-George into structured A4 records, are no longer relevant to estimates of the time and staff required

in the computer era; we can be certain, however, both that far more administrative time is necessary for effective proactive care, and that this is still grossly underestimated by the Department of Health, indeed by anyone who has not had personal experience of such work within a real population. We do need more administration, but at the periphery, not the centre; and by periphery, I do not mean just the family practitioner committee.

Three threats and two opportunities

With far greater potential for rapid growth than reactive care, proactive care presents both threats and opportunities; three threats and two opportunities. I will deal first with market opportunities, then with threats of medical autocracy, workload, and bureaucracy, and finally with opportunities for democratized science.

Market opportunities

With innocent intentions, proposals appeared in 1986 for competitive internal markets in the National Health Service,¹¹⁻¹⁴ which despite later attempts to modify them^{15,16} when their full implications became apparent, have been eagerly seized by the government as a rational basis for their programme of so-called reform. Despite these gestures toward academic respectability, medical marketers have their fingerprints all over the white paper¹⁷ and the new contract.¹⁸ Just as no salesman criticizes his customers for giving priority to 12 pints of beer or a holiday in Majorca, shopkeepers in medical supermarkets will not worry about uncritical use of screening, cholecystectomy, or cosmetic surgery. Once any health care system runs on profit rather than perceived need, a sceptical scratch at the scientific surface is enough to reveal only technology within.

As for savings, there are none, as the government knows; we still have the most cost effective health service of any developed nation, though even today few health professionals seem to know the price of anything. Because profit-driven systems reduce medical care to a commodity, they are essentially uncritical and therefore unscientific. Inevitably, costs multiply and an overgrown and increasingly irrelevant service breaks into two

tiers, a private market for the overdiagnosed, overtreated rich, and some squalid minimum public service for the underdiagnosed and undertreated poor, avid to consume if and when they can afford it. Our experience of the NHS has already shown that in a fully developed economy, need can be a more efficient social fuel than greed; which may be one reason for the desperate hurry to end the experiment.

Workload and bureaucracy

The proposers of internal markets gave the trousers to cover the unattractive reality of the white paper,¹⁷ but I, and other early advocates of proactive care, have inadvertently provided its hat.

To all of us who have hands-on responsibility for personal care, the immediate threats of the new contract are the imposition of apparently arbitrary structures for proactive care by a newly aggressive bureaucracy willing to enforce them against existing pressures for reactive care, to be further increased by a public now encouraged to see itself as a consumer rather than co-producer.

In these circumstances a collision between proactive and reactive care is inevitable. Patients have every right to consult for less serious conditions and will continue to do so; there is no way any serious proactive programme (its content defined by professionals) can work unless priority is given, and is seen to be given, to reactive care defined by patient demand. Wherever these two functions are separated, so that one group of health workers treats the sick and another handles the worried well, both prevention and cure become thoughtless and ineffective. The whole point about general practice, as we have understood it since John Horder's presidency of this College,¹⁹ is to unite cure and prevention in one function of anticipatory care; and in that historical order, because these are both the public and the professional perceptions of priority. Readily accessible reactive care is a precondition for effective proactive care. Any serious start must begin not from arbitrary schemes pulled out of the sky, but from where we are, with the people we have, using empirical data.

The resource implications of proactive care must be recognized and accepted, both by general practitioners who control the work and by the government which, as agent of the community, has responsibility for meeting the bill. The reluctance of many general practitioners to expand their teams,²⁰ and the eagerness with which government now seeks to restrain such expansion, suggest that these resource implications are not yet understood or accepted. When we recognize that general practitioners cannot do everything, that we need and must have a wider team on a footing of professional equality, we have no more to fear from workload than other scientists have to fear the limitless growth of their sciences.

Medical autocracy

Nevertheless, we live in a fearful time. As Louis Mountbatten said at Strasbourg in 1979, the world now stands at the edge of the abyss, and this remains true in whatever direction we look. Inevitably, there are calls for retreat, to escape the conflicting demands posed by proactive against reactive care, not by proclaiming the necessity of both, but by denouncing proactive measures as ineffective, autocratic, and bound to impair personal care of the sick.^{21,22}

Medical beliefs have been and still often are mistaken, above all when sold rather than given, and particularly when they have either not been subjected to adequate controlled trials, or when politicians see votes in over-optimistic interpretations of them; my friend Maureen Roberts' posthumous paper in the *British Medical Journal* should be read by everyone who cares about

clinical medicine.²³ However, escape through diagnostic and therapeutic nihilism is illusory; even if some currently accepted reversible precursors of major disease are proved to be false, we are already entering a new era of increasingly accurate identification of presymptomatic major disease, as we begin to reap the fruits of molecular biology. Some promising lines will eventually be discarded, but that all of them will fail is surely not possible. We need more science, not less,²⁴ and a much wider and more thoughtful definition of what science actually is, as opposed to technology. Whether or not real advances in science are delivered to more than a small, spoiled minority of the population depends on the social organization of medical care.

Democratized science

What successive schools of liberal nihilism²⁵ have failed to perceive is that though reactive care does indeed present the only opportunity for the public to say what they want, whereas proactive care represents what we professionals think they need, the balance of power is reversed as soon as we move from diagnosis to treatment. Episodic reactive care is a response to patient demand, but typically in terms of active doctors dosing passive patients. The lifelong changes in behaviour and environment, and sometimes medication, implied by proactive care, on the other hand, lie almost entirely in the hands of patients themselves. Unless doctors who detect the earliest precursors of chronic disease are willing to accept patients as equal or even dominant partners in tackling the problems they identify,²⁶ health production will not follow.²⁷ Medical science will not be effectively applied to whole populations until it is democratized.

An agenda for the next 100 years

Proactive care is an agenda for at least the next 100 years. Of course, we must be critical; as we are, and will remain, as long as we do not hear a ping from the cash register every time we do something for customers wandering in to our shops from a population we no longer know. Our health service has been steered into a historic U-turn, frog-marched back to a past of social division after 75 years of progress toward social unity. When this is reversed, two successive U-turns will make an S-bend. This, like the National Health Service, was a notable British sanitary invention; we shall celebrate both when a right royal flush sounds through the land.

As for Mackenzie, I suspect he was always happier in Scone and Burnley than he ever was in Harley Street.

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Address for correspondence

Dr J Tudor Hart, Glyncoirwg Health Centre, West Glamorgan SA13 3BL.

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MRCGP Examination

The dates for the next two examinations for Membership of the College are as follows:

May/July 1990

Written papers: Wednesday 9 May 1990 at centres in London, Manchester, Edinburgh, Newcastle, Cardiff, Belfast, Dublin, Liverpool, Ripon, Birmingham, Bristol and Sennelager. Oral examinations: in Edinburgh from Monday 25 to Wednesday 27 June inclusive and in London from Thursday 28 June to Saturday 7 July inclusive. The closing date for the receipt of applications is Friday 23 February 1990.

October/December 1990

Written papers: Tuesday 30 October 1990. Oral examinations: in Edinburgh on Monday and Tuesday, 10-11 December and in London from Wednesday to Saturday, 12-15 December inclusive. The closing date for the receipt of applications is Friday 7 September 1990.

Proficiency in basic cardiopulmonary resuscitation is now an entrance requirement for the MRCGP examination. Further details about the examination and an application form can be obtained from the Examination Department, Royal College of General Practitioners, 14 Princes Gate, London SW7 1PU.

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The cost for Members and their staff starts from £175 (inclusive of Friday night accommodation) and £150 (without accommodation). For non-members, the prices are £200 and £175 respectively. The fee includes the cost of all meals, refreshments and extensive course notes.

Courses are zero-rated under Section 63; practice staff may be eligible for 70% reimbursement under paragraph 52.9(b) of the Statement of Fees and Allowances. Staff should confirm eligibility with their local FPC.

Forthcoming courses: 23-24 February, 16-17 March and 20-21 April 1990.

Further details from: The Course Administrator, Information Technology Centre, The Royal College of General Practitioners, 14 Princes Gate, London SW7 1PU. Telephone: 01-823 9703.