Contemporary Themes

Promotion of exercise at work

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"I can foresee a time when squash courts, recreation rooms and swimming pools will become a mandatory and integral part of every major new building whether it be hotel, factory, flat or office block—as usual and necessary as modern plumbing.¹ Sir Roger Bannister wrote these words in the *British Medical Journal* in 1972 and since that time there has been some progress, particularly in the offices of the large American corporations, reflecting not only their approach to corporate life (which demands more of, and gives more to, employees than in most British firms) but also their enthusiasm for physical exercise. For example, at its headquarters in New York Pepsico has a fitness director who is planning a fitness programme for all 100 000 employees, and the vigorous approach of the Xerox corporation to the prevention of unfitness is now well known.²

The need for exercise facilities at work grows as an increasing proportion of the workforce becomes sedentary and as the evidence for the benefits of exercise to health accumulates,³ particularly as some authorities suggest that it is necessary to exercise at least three times a week for most effective results.⁴ A gymnasium or swimming pool is obviously inappropriate except for the largest companies or where a number of companies can share facilities. What is needed is something simpler, cheaper, and more accessible, and we believe that the provision of shower and changing facilities for office workers would be the most cost effective way of promoting exercise for those whose journey to work and whose job did not entail vigorous exercise.

From personal experience, having had to change in the "gents" if we wanted a run after a long car or train journey or to break a long inactive day, and having had to wash inadequately in a small handbasin, we knew that many health centres and hospitals had no showering facilities. We therefore decided to try to assess what proportion of community physicians and health education officers (who were, we presumed, the professionals most interested in prevention) worked in offices in which there was access to a shower and changing facilities.

Methods

In 1981 we wrote to every area medical officer (n=112), regional medical officer (n=14), and health education officer (n=101) in England and Wales. In addition we wrote to the members of the exercise physiology group (n=78), an informal group of medical and non-medical scientists, and to members of the joint working party of

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the Royal College of Physicians of London and the British Cardiac Society that had written the 1976 report on the prevention of coronary heart disease (n=18).⁵ One reminder was sent to those who had not replied.

The questionnaire asked for information about access to exercise, changing, and shower facilities. We asked if it were possible to have access to changing facilities at short notice or, if that were impossible, at 24 hours' notice. We also asked if there were any special exercise facilities available and invited comments on the provision of shower and changing facilities at work.

Results

Replies were received from 255 of the 323 recipients of the questionnaire, a response rate of 79%.

EXERCISE FACILITIES

We were pleasantly surprised by the range of exercise facilities available to the respondents. A total of 115 indicated access to parkland, 61 to gymnasium, 78 to squash court, 83 to a swimming pool, and 71 to other facilities. Many had access to more than one facility.

SHOWER AND CHANGING FACILITIES

Table I shows the availability of showers for the various categories of respondents. A total of 113 of our respondents would have been able to offer us a shower had we requested one on our arrival, and another 17 would have been able to arrange for one had we given 24 hours' notice.

Of the 173 respondents working in National Health Service offices—namely, regional and area medical officers and health education officers—only 59 had access to a shower and changing facilities. Members of the exercise physiology group and the working party on the prevention of coronary disease were much better off not only because of the proximity of university sports centres but also because some had showers in their own exercise laboratories.

TABLE I—Details of availability of a shower. Figures are numbers of respondents

Group	No of respondents	Availability of shower		
		Available at short notice	Available with 24 hours' notice	Not available
Area medical officers	86	23	5	58
Regional medical officers	8	1	0	7
Health education officers	79	21	10	48
Exercise physiology group	68	58	1	9
Working party on prevention of coronary heart disease	14	10	1	3
Total	255	113	17	125

ATTITUDES OF RESPONDENTS

Only four of the respondents did not agree with the statement that "in general, regular exercise is beneficial to health" but 15 expressed comments hostile to the suggestion that the provision of changing facilities and showers was desirable. A total of 62 volunteered expres-

sions of support, although respondents were not directly asked whether they approved or disapproved of the idea implied by our questionnaire. The least enthusiastic groups, not surprisingly, were those most closely concerned with resource allocation. Table II shows the response of the various groups.

Four members of the exercise physiology group did not give an opinion on the provision of shower and changing facilities.

TABLE II—Attitudes towards provision of shower and changing facilities. Figures are numbers of respondents

Group	Comments			Total number responding	Ratio of favourable to unfavourable comments
	In support of shower provision	Hostile	No specific comments		
Area medical officers	9	6	71	86	1.5:1
Regional medical officers	1	1	6	8	1:1
Health education officers	30	6	43	79	5:1
Exercise physiology group	20	2	46	68	10:1
Working party on prevention of coronary heart disease	2	0	12	14	NA
Total	62	15	178	255	4:1

NA = Not applicable.

Conclusions and implications

Before extrapolating from the findings of this survey to its implications for the community as a whole it is essential to question how representative were the sample of offices we chose. Two possible sources of bias can be identified.

The first is that we deliberately chose respondents who are better informed about and more interested in preventive medicine or exercise or both than other sedentary workers. As individuals, however, they do not seem to have changed their own patterns of activity, so it is unlikely that the recent evidence on the benefits of exercise has influenced the availability of facilities to them. A total of 137 stated that they had not changed their exercise habits, 68 that they were taking more exercise, and 45 less. We have, however, been unable to find data on the exercise habits of other groups of office workers and cannot therefore determine how representative our sample was and whether or not our results are biased.

The second possible source of bias is that some of the respondents worked in offices that were close to, or in, hospitals and thus might be more likely to have access to a shower.

Both these sources of bias increase the probability that a shower would be available and thus the availability of showers to office workers not working for the National Health Service is probably less than that found in our survey.

IMPLICATIONS FOR NEW OFFICE BUILDINGS

Because we believe the shower and changing room to be as important for the health of workers in the twentieth century as the water closet was for those in the nineteenth century we believe that all new office buildings should contain these facilities and that the Offices, Shops and Railway Premises Act,

TABLE III—Costings of designs for providing shower and changing facilities

	Cost of building showers and changing facilities	Total cost of development, excluding professional fees*
Large factory (200 men per shift)	£1500	£600 000–£1 500 000
Small factory (10 men and 2 women)	£925	£62 500
Small office (3 men and 1 woman)	£700	£25 000

* Based on prices in 1980.

now subsumed under the Health and Safety at Work Act 1974, should be amended accordingly.

An architect has analysed this proposal and concluded that in office buildings employing more than 100 people space sufficient for showers could be made available by changing the existing statutory requirements for lavatories because more lavatories are provided than are needed. His designs were costed by a quantity surveyor and the costs are set out in table III.

IMPLICATIONS FOR EXISTING OFFICES

Section 41 of the 1971 Finance Act entitles an employer to deduct the whole of the cost of work carried out for the welfare of his employees from his profits in the year in which it is incurred and section 45 of the Capital Allowance Act of 1968 allows him to include the costs of any installation and alteration that may be necessary.

The services funded from public expenditure are of course under different administration and we appreciate the difficulties faced by people making decisions on the allowance of public funds. Nevertheless, we believe that the benefit to the employer from the provision of shower and changing facilities is such that they should not be regarded as being simply for the welfare of the individual but rather as an investment that will lead to the more effective and efficient functioning of the organisation as a whole. The relation between the environment at work and absence through sickness has been clearly established.⁶ The employer who provides facilities for his employees or who helps his employees to develop their own facilities (for social clubs can become self financing) will also receive benefits.

The white paper on prevention and health (1977)⁷ stated: "It is in the interests of employers as well as of the community to maintain a fit and effective work force" and that employers should: "consider the provision of sport and recreational facilities for use by their employees at breaks or after work." Since then more evidence has accumulated about the beneficial effects of exercise. The Department of Health's booklet, *Avoiding Heart Attacks*,⁸ emphasised that "really strenuous activity appears to be particularly effective in protecting against fatal heart attacks" and that "exercise should be taken regularly and often at least twice and preferably three times a week." In the United States considerable attention has been paid to the importance of exercise facilities at work.⁴ In Britain the Health Education Council and Sports Council are interested but interest alone does not lead to health improvement: what is needed is action.

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