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# WELLNESS AT THE WORKSITE

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by Kenneth E. Warner

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**Prologue:** *A nationwide survey of worksite wellness programs in 1985, the first of its kind, found that nearly two-thirds of responding employers offered at least one health promotion activity to their workers. While worksite wellness programs hold promise to control employers' health expenditures, which often exceed several thousand dollars per employee, few corporations rely on them as a major cost containment strategy. Whether health promotion produces cost savings is the focus of the current debate. To address key issues, the Office of Disease Prevention and Health Promotion of the U.S. Department of Health and Human Services has entered into a cooperative agreement with the Washington Business Group on Health (WBGH) to develop a national worksite health promotion resource center. WBGH is consulting with employers, universities, unions, associations, and other business groups in creating the center, which is scheduled to open in September 1990. In this article, Kenneth Warner provides an overview of health promotion activities at the workplace. He characterizes the conventional wisdom about the economics of health promotion as follows: "Health promotion modifies behavior; improved (that is, healthier) behavior reduces health services use; hence, health promotion will contain health care costs." Warner notes that additional research is needed to determine the effectiveness of health promotion programs, in terms of both positive health behavior changes and cost savings potential. He also offers his prognosis for future developments in worksite health promotion. Warner, who received his doctorate in economics from Yale University, is a professor of public health policy at the University of Michigan, where he has been on the faculty since 1972. He is currently a senior fellow at the Institute of Gerontology at the University of Michigan. He served as senior scientific editor of the twenty-fifth anniversary surgeon general's report on smoking and health, released in January 1989. That same year, he was awarded the Surgeon General's Medallion by C. Everett Koop.*

In the 1980s, corporate America emerged as the focal point for organized health promotion. By the middle of the decade, nearly two-thirds of U.S. worksites with fifty or more employees offered at least one health promotion activity. At the nation's largest worksites, the availability of health promotion activities is now almost universal, and several major corporations have established comprehensive programs widely regarded as the standard of excellence in worksite wellness.<sup>1</sup>

Health promotion programming at the worksite expanded rapidly over the past decade, the result, in part, of inherent advantages of the worksite as a setting for effective health promotion. Businesses' adoption of health promotion programs has also reflected the perception of benefits ranging from the intangible—such as enhancing the corporate image—to improvements in both the physical health of employees and the fiscal health of the firm.

Unique attractions suggest that the worksite will remain an integral component of the future growth and development of health promotion. The relative importance of the work setting will depend both on the continuing enthusiasm of management and labor and on the behavior of other institutions as well. Current emphasis on corporate health promotion might recede if, for example, government took a more active role in the development of health promotion policies.<sup>2</sup>

Regardless of the ultimate importance of the work setting in the health promotion firmament, the role and nature of worksite wellness are destined to evolve in response to forces specific to the workplace and to broader societal trends. Direct influences will include the conventional process of the maturation of health promotion and dynamic changes in the demographics of the work force of the future. In this article, I discuss predictable influences that will motivate changes in worksite wellness as we enter the twenty-first century. First, however, I consider contemporary worksite health promotion, focusing on factors believed to be responsible for its introduction and diffusion. Particular attention is accorded the "economic argument" in worksite wellness: the debate over whether health promotion contributes to a healthier corporate bottom line.

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### **The Worksite As A Locus Of Health Promotion**

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Certain technical and organizational features of the worksite enhance the likely reach and effectiveness of health promotion interventions. The prospect of success, however, may not be sufficient to entice business managers to adopt health promotion programs. While management may share an interest in employee health for its own sake, management also evinces interest in the economic implications of health promotion pro-

gramming and in intangible benefits related to employee morale and company image.

**Effectiveness of worksite health promotion.** At the core of the technical attractiveness of the worksite lies the fact that workers constitute a “captive audience.” The audience is important. Working adults exhibit a relatively high prevalence of modifiable risk factors and, given their age, constitute an at-risk population. In general, a given work force may be either particularly receptive to health promotion interventions (white-collar populations) or in need of them (blue-collar populations). In both populations, the potential for a substantial health impact may be significant.

In both its physical and psychological dimensions, the “captive” nature of the audience is an essential feature of effective health promotion. During the work week, the typical forty-hour employee spends half of all waking hours at the worksite. The employee is subject to implicit, and sometimes explicit, pressure to conform to the desires of the employer; these may be reflected in the availability of health promotion programs. Similarly, peer pressure may increase the employee’s likelihood of reducing risk factors.

The elements of “captivity” encouraging behavior change are not all negative. The flip side of peer pressure is peer support, widely regarded as encouraging compliance with difficult behavior change regimens. The on-site availability of health promotion programs and facilities reduces time and travel barriers to employees’ participation, while employers’ provision of time off from work to participate (a not uncommon feature) constitutes a positive inducement as well. Employer subsidization of program costs, in whole or in part, can also encourage employee participation.

The effectiveness of health promotion programs also may be enhanced by the stability and daily availability of the target population—facilitating sustained and intensive interventions—and the existence of well-established internal communications channels for transmitting information. An on-site health staff can ease the development of a program and increase its credibility. Combined with potential economies of scale, reflecting the size of the work force, these factors can translate into the delivery of health promotion services at costs below those achievable outside the employment setting.

**Attractions to business.** Businesses’ interests in health promotion can be categorized as economic, employee health and welfare, and intangible corporate benefits. While a reading of the trade literature might lead one to conclude that fiscal considerations are paramount, survey findings and the opinions of knowledgeable insiders challenge this view, suggesting

instead that improvement of employees' health has been the main motivation.<sup>3</sup> The centrality of concern for employees' health is logical. Experts concur that individual behavior is responsible for more than half of all avoidable premature mortality; health improvement, through behavior modification, is health promotion's long suit.<sup>4</sup> Further, an allegedly important motivating factor for the adoption of many worksite programs has been the "born again" zeal of corporate officers who have themselves experienced behavior-related health problems. In a 1985 national worksite survey, "to improve employee health" led the second most frequently cited reason for offering health promotion programs by more than 50 percent; the second most frequent response was "because management wanted it."<sup>5</sup>

Despite such evidence, the literature reveals a strong bias within the wellness community that bottom-line considerations—specifically, the control of health care costs—are driving, or must drive, the continued growth of worksite health promotion. Three interrelated premises underlie the perception that economic concerns are of preeminent importance: (1) businesses are motivated in this area, as in all decision making, primarily by the bottom line; (2) businesses' health care costs have been rising rapidly, at a rate significantly greater than that of society as a whole; and (3) there is growing evidence that employees with unhealthy behavior have substantially higher health care costs than do employees leading healthier lifestyles.<sup>6</sup> A simple logical deduction follows: health promotion modifies behavior; improved (that is, healthier) behavior reduces health services use; hence, health promotion will contain health care costs. Because health promotion services are inexpensive on a per participant basis, health promotion is perceived to be cost-beneficial.

As to the first premise, while ultimately businesses are undoubtedly motivated by consideration of profit and loss, innumerable decisions are made independent of explicit attention to profit. Indeed, it has been argued that bureaucratic complexity, especially in large corporations, often precludes valid estimation of the effects of health promotion decisions made in one department on profitability considerations elsewhere in the corporation.<sup>7</sup> Despite this, it is reasonable to assume that assurances of positive contribution to the bottom line will constitute an attractive, if not necessarily essential, feature of any proposal that involves businesses' resource consumption. Thus, absent knowledge of whether or not profitability is necessary for program adoption, it may be prudent to work with the assumption that it is.

The fact that self-reports on surveys do not feature the economic factor as health promotion adopters' preeminent consideration does not necessarily invalidate its importance, for at least two reasons. First, self-

reports are always suspect in that respondents have a tendency to offer "right" answers (for example, in this context, emphasizing employee 'health or morale): Second, it is possible that early adopters were motivated by noneconomic considerations, while nonadopters failed to implement health promotion programs precisely because they were motivated by financial concerns. In a survey of worksite health promotion in Colorado, adopting firms ranked reduction of health care costs as the third most important consideration (close to the second but substantially below the primary concern with employee health).<sup>9</sup> Nonadopters ranked concern with employee health and with reducing health care costs virtually identically (68 versus 67 percent, respectively). Thus, as the future expansion of worksite health promotion is contemplated, observers' heavy emphasis on the bottom line may not be unwarranted.

The growth of business health care costs is clearly the driving force behind the linking of health promotion to cost containment. Employers pay four-fifths of private health insurance premiums. Expansion of employee benefits, the aging of the work force, and growth in the retiree population (many of whom receive supplemental health insurance from their former employers) have combined to exacerbate health cost inflation in the business community. As a fraction of total employee compensation, health care benefits have grown from 1.5 percent in the mid-1960s to more than 5 percent at present, amounting to several thousand dollars per active employee in many of the nation's larger corporations.

**Wellness programs and cost containment.** Thus, it is understandable that much of the wellness community sees the health care cost containment potential of health promotion as a critical variable and that health promotion entrepreneurs use it to market their services and products. Nevertheless, few if any corporations rely on worksite health promotion as a major cost containment strategy. Restructuring of health insurance benefits and contracting with alternative delivery systems such as health maintenance organizations (HMOs) and preferred provider organizations (PPOs) are the methods of choice, supplemented with activities such as second-opinion programs.<sup>10</sup>

Selected studies are finding financial savings from health promotion in such areas as health care utilization and absenteeism.<sup>11</sup> Yet a sound analytical and empirical case for health promotion's profitability has yet to be made.<sup>12</sup> The apparent consensus that worksite health promotion generates positive economic returns appears to derive considerably from analyses that are devoid of the most fundamental principles of program evaluation and from what one scientist characterizes as "wish bias."<sup>13</sup>

To take one noteworthy (if extreme) example of the poverty of the empirical base of knowledge, in 1987, a health research organization's

survey of businesses' involvement in worksite health promotion reported that "the cost-benefit ratio for respondents' wellness programs is \$3.44 saved per dollar of annual operating cost." Since then, numerous authors on worksite health promotion issues have cited that figure in support of health promotion's financial yield, as if it represented a meaningful appraisal of the returns to wellness programs.

The origin of the cost/benefit estimate suggests quite the opposite. Of 500 companies surveyed, only 141 (28 percent) responded. Of these, "over 63 percent" (therefore, presumably eighty-nine companies) offered wellness programs. Of respondents with wellness programs, 11.2 percent (ten companies) "have a program saving measurement means in place." Finally, "thirty percent of the respondents with savings measures {three companies} reported the average level of savings resulting from their wellness programs." Thus, the research organization based its conclusion about the financial benefits of corporate wellness programs (and hence its estimate of the cost/benefit ratio) on the self-reported savings of 3 out of 141 responding companies (from an original sample of 500). Furthermore, there is no evidence that an attempt was made to assess the validity of the three firms' savings measurement methods.<sup>14</sup>

Some analysts characterize the economic argument as of limited importance, even if health promotion can be demonstrated to be cost saving, simply because "net savings would be small under most circumstances."<sup>15</sup> The strength of worksite health promotion, such analysts have argued, lies not in its potential to save dollars, but rather to save and improve lives in a cost-effective manner. This conservative (but still positive) view contrasts strikingly with the both implicit and explicit argument that worksite health promotion can produce dramatic cost savings. In the explicit category are claims of reductions in employee health care costs and absenteeism of as much as 25 to 50 percent, one to five years following implementation of health promotion programs.<sup>16</sup> In the implicit category is the compelling evidence that individual businesses spend millions of dollars on behavior-related health care costs, costs that many wellness analysts consider preventable through health promotion.<sup>17</sup>

Failure to clarify the potential of health promotion can lead to exaggerated expectations, as the following simple illustrative calculation shows. Suppose that a worksite smoking cessation program succeeds in attracting a quarter of all smoking employees, surely an optimistic figure. Suppose, in addition, that as a result of the program a quarter of these participants quit smoking permanently (on the high end of the range of program success rates); that through their quitting the company avoids three-quarters of all those costs attributed to each employee's smoking; and that over the relevant period of years the company retains three-quarters

of its employees. Altogether, such facts imply the avoidance of 3.5 percent of all smoking-related costs.

A calculation such as this highlights Laura Leviton's conclusion that even cost-saving health promotion interventions are not likely to have a substantial impact on a corporation's health care costs. Interpreted differently, however, such calculations can illustrate the impressive potential of health promotion to improve workers' health, an outcome often treated as incidental in discussions of the economic consequences of worksite health promotion. Few health care measures come close to granting the reduction in illness, disability, and premature death that can be attained through smoking cessation and control of high blood pressure, two prominent worksite health promotion interventions. Few of the services paid for by employers' medical care dollars yield comparable employee health benefits, and most of these come with much higher price tags.

**Different standards of evaluation.** The health promotion literature rarely addresses explicitly the health "buying power" of health promotion as compared to that of conventional health insurance. One of the great handicaps confronting the would-be health promotion program is that it is measured against a higher, more demanding standard than is conventional, treatment-oriented (and health insurance-covered) medical care. A medical care intervention simply has to represent accepted medical practice. By contrast, a health promotion intervention often has to prove its effectiveness (a standard not required of many surgical and medical procedures), its cost-effectiveness (rarely assessed in the medical environment), and its cost savings (never required of a medical intervention).

Thus, as currently construed, the economic argument in health promotion implicitly forces the novel health promotion intervention to compete on the health side with established and insured patterns of medical care. On the fiscal side, it must vie with more effective restructuring of insurance benefits and delivery systems, each motivated exclusively by the desire to contain costs and neither needing to demonstrate a health outcome benefit. The proverbial deck is stacked against health promotion.

The lack of solid evidence regarding worksite health promotion's economic yield should not be misinterpreted. The possibility remains that health promotion will be demonstrated to offer an excellent financial yield in many areas. The paucity of scientifically solid evidence merely highlights the need for additional research.

**Other cost and benefit issues.** Other impacts certain to command business attention include the effect of worksite health promotion on absenteeism—an important economic variable that can be measured quickly and accurately, and, hence, already the subject of several evalua-

tions.<sup>18</sup> Other potential benefits include decreases in life insurance costs, disability, workers compensation, and employee turnover, and increases in on-the-job productivity.

Analysis of benefits can get extraordinarily complex. For example, one criticism of worksite fitness (exercise) programs is that they attract primarily employees who would engage in exercise outside of work if there were no work facility. As a consequence, these employees' lower health care bills cannot be attributed directly to their participation in the program. The existence of the program, however, might attract fitness-conscious employees to work for the firm, thereby bringing their low-cost health care profiles with them. Similarly, by building good will, the program might reduce absenteeism or turnover among such employees. As such, these indirect savings constitute financial benefits attributable to the program.

On the "downside" of the economic equation, the costs of worksite health promotion must be evaluated, too. Typically, the direct costs of most worksite interventions appear to be quite small per employee or per participant. This fact has been used in promoting the adoption of health promotion programs and is also one basis for the widespread assumption that yields from health promotion interventions will greatly exceed their costs. As in the case of benefit analysis, however, evidence here is sparse.

The costs of worksite wellness programs can be categorized as direct, indirect, and intangible. Direct costs include such start-up and operating costs as personnel, supplies, facilities, equipment, management, and the value of employees' release time to participate. Indirect costs include any adverse future economic consequences such as higher pension and supplemental health insurance benefits for retirees who live longer as a consequence of successful health promotion.<sup>19</sup> Intangible costs relate to such issues as employees' perceiving behavior change programs as invasions of their privacy.

By the time credible cost/benefit evidence accumulates, the fate of health promotion may be defined primarily by the attitudes of labor and management toward health promotion programs, which may have relatively little to do with bottom-line profitability. From the perspective of the health community, one hopes that the principal economic concern will have shifted from an intervention's ability to save money to its ability to improve employee health in a cost-effective manner.

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## Future Directions

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As worksite health promotion matures, it seems destined to emphasize refinements and radical changes in program organization and delivery.



One refinement—use of incentives to boost program participation and success—is a currently evolving development that has been the subject of empirical analysis. I examine it in some detail here. Due to space limitations and a smaller body of evidence, the remaining developments are introduced briefly.

**Use of incentives.** A wide variety of incentives, including group competitions, lotteries, and direct financial payments for success, has been employed in worksite health promotion programs. Interest in the self-conscious use of incentives seems likely to grow if evaluations of incentive programs indicate positive effects. Some programs have reported impressive success rates using incentives. Following implementation of a policy of adding a weekly bonus to the paychecks of nonsmokers, the Speedcall Corporation reported reductions in the prevalence of smoking among its workers from 67 to 43 percent within a month. Over a four-year period, smoking prevalence fell to as low as 13 percent and rested at 20 percent upon last investigation. The evaluation of the program suffered from serious flaws, but the findings have been interpreted as encouraging.<sup>20</sup>

Sharon Ostwald recently reported that workers who received free low-fat lunches saw their mean cholesterol levels decrease nearly twice as much as did employees not receiving them.<sup>21</sup> A series of weight-control incentive programs found weight reductions, both initial and sustained, to exceed those reported in nonincentive programs.<sup>22</sup> Similarly, payment for blood pressure reduction and for keeping clinic appointments was associated with greater reductions in blood pressure than from other nonincentive worksite programs.<sup>23</sup>

Not all evaluations performed to date have found uniformly positive results, however. In particular, incentive programs have been criticized for failing to teach fundamental principles of behavior change. One consequence of this may be that high initial rates of behavior change can not be sustained over the long run, especially after incentives cease. For example, one study of payments to smokers for reductions in carbon monoxide levels in their blood concluded that the incentive helped in initial quitting but had relatively little impact on long-term quit rates.<sup>24</sup> Similarly, studies of safety belt use motivated by prizes and awards have produced mixed findings concerning long-term use of belts.<sup>25</sup> To address this problem, Donald Shepard and Laurie Pearlman have recommended ongoing periodic incentives, rather than onetime payments.<sup>26</sup> Other studies have concluded that, while incentive programs may have higher effectiveness rates, their higher costs diminish their cost-effectiveness.<sup>27</sup>

Development of consensus on the effectiveness and cost-effectiveness of incentive programs will influence the future of this approach to

encouraging health promotion in the work setting. The creativity and potential inherent in incentive approaches suggest that many more will be adopted en route to assessing their contribution to effective health promotion.

**Maintenance of behavior change.** Behavioral scientists have refined their understanding of the process of change, characterizing it as a continuum with critical stages in which maintenance of change requires different skills than does the initial attainment of change. The scientific community, and increasingly the community of program vendors, are according maintenance greater attention. This will be reflected more and more in the formal structure of worksite health promotion programs, including those employing incentives.<sup>28</sup>

**Program “packages” or modules.** Today, the would-be corporate health promoter has a wide menu of area-specific health promotion programs from which to choose. For example, formal smoking cessation programs are offered by numerous health promotion entrepreneurs and voluntary organizations. Interventions range from inexpensive self-help manuals to elaborate behavior modification programs. Similarly, there are numerous weight-loss programs offered by a different (but overlapping) set of vendors.

As the wellness enterprise gains sophistication, one would anticipate the development of effective behavior modification package programs that would address groups of dependence disorders in a unified, theoretically consistent manner. The underpinnings of this development exist at present, and selected health promotion program vendors are already working toward this objective. Economies of scale inherent in integrated programs, combined with enhanced program effectiveness, would offer benefits to all corporate health promotion programs. In particular, they should expand the options now available to smaller worksites to adopt serious wellness programming.

**Interventions for small worksites.** Already, numerous options are available to small firms (self-help materials for employees, for example), but ultimate saturation of the large-worksite market and recognition of the size of the small-worksite market will turn increasing attention to the latter. Both product and organizational innovations will cater to the interests and needs of small-scale employers and their employees.

**Integrating health promotion into corporate bureaucracy.** Many corporate health promotion programs are housed in firms' medical departments, some are located with other employee benefits, and still others are run by a business's environmental safety department. Organizational “shake-out” may have profound implications for worksite health promotion, as expectations of the program will be defined differ-

ently by the units in which they are housed.<sup>29</sup>

**Use of environmental approaches.** Environmental conditions have a potentially profound influence on individual behavior. Worksite health promotion programs in future years seem likely to pay increasing attention to what Nola Pender has referred to as “developing a health-strengthening environment.” Such an environment includes attention to the physical environment (for example, presence of windows and adequate ventilation, attractive surroundings, ergonomically designed work stations), organizational environment (flexibility concerning the structuring of jobs, task variation), and the psychological environment (employers’ genuine concern for their employees’ welfare and respect for their opinions).<sup>30</sup> James House and Eric Cottingham have identified conscious attention to the psychosocial environment as the missing ingredient in a comprehensive approach to workplace health. They have characterized concern with workers’ health as consisting of two “scientific and social movements:” occupational safety and health, focusing on the physical, chemical, and biological environmental determinants of worker health; and the current workplace health promotion movement, emphasizing individual behavior and health.<sup>31</sup>

**Employees’ right to privacy.** The privacy issue seems likely to acquire increasing urgency in the near future. Its resolution will be sought through a mix of management/labor negotiations, court decisions, and state and perhaps federal legislation. Workplace smoking policies and responses to them constitute the prototype for the privacy debate. With an increasing number of employers prohibiting smoking at the worksite, and a small but growing number refusing to hire smokers or prohibiting any smoking by employees, even at home, redress of alleged violation of privacy rights is being sought in the courts.<sup>32</sup> A consistent pattern of findings in favor of employers likely would foster growth in restrictive policies, not necessarily just in regard to smoking, but also conceivably in such areas as diet and weight control. Conversely, decisions favoring plaintiff employees likely would curtail growth.

**Changes in worksite structure.** One predictable change in the worksite vividly illustrates how worksite health promotion will be forced to adapt to structural modification of the worksite. As a result of both technological innovation (for example, computer work stations and fax machines) and changes in social relationships (such as growth of the dual-career family), more and more employees will work in their own homes. To the extent that worksite health promotion programs rely on peer pressure to achieve high rates of effectiveness, they will need to be redesigned to conform to a dispersed population of home-based employees. Similarly, behavior modification programs, now dependent on one-on-one pro-

vider/client and group interactions, will have to find new delivery mechanisms that do not rely on face-to-face contact and that presumably rely more heavily on computer-based technologies. Prototypes exist. For example, Control Data has put its StayWell lifestyle-change courses into interactive computer programs and made them accessible to employees.<sup>33</sup>

More fundamentally, changes in work and the workplace augur an increasing need to attend to the psychosocial dimensions of workers' health in the future evolution of health promotion. As House and Cottingham have observed, the continuing trend away from the traditional model of blue-collar work toward white- and pink-collar employment, and toward more mechanized and technical blue-collar work, enhances the salience of the psychosocial dimensions of work environments. Such aspects of work life include the level and scheduling of work loads, relationships among employees (peer/peer and worker/supervisor), personnel and property responsibilities, and conflicts between work and life outside of work. As the nature of work changes, and as global economic competition continues to intensify, the prevalence of psychosocial stressors may increase as well, including such obvious stressors as job insecurity and technological and organizational change. A growing body of evidence, both epidemiologic and experimental, indicates that the psychosocial dimensions of the work environment have significant effects on health behavior, morbidity, and mortality.<sup>34</sup> The successful health promotion program of the future must address this feature of work and health effectively and with much greater sensitivity than is currently the case.

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### Targeting Health Promotion Activities

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**The current work setting.** White-collar workers have been shown to be most receptive to worksite health promotion programs; more generally, they exhibit fewer risk factors than do blue-collar employees. Thus, from a public health perspective, the blue-collar work force represents an obvious target for worksite health promotion. From a marketing perspective, the blue-collar work force is an attractive target as well, because of the large numbers of employees and worksites. Combined, these factors augur shifts in the design and marketing of worksite health promotion programs.

However, achieving successful implementation of health promotion at blue-collar worksites confronts two formidable hurdles. The first is the lower level of receptivity among blue-collar workers, compounded by the higher rate of unionization among blue-collar employees, and thus the possible need for negotiating health promotion programs. The second

hurdle is that many health promotion interventions may be most effective in white-collar populations, reflecting not only their greater receptivity but also the fact that many interventions have been designed for them, albeit often implicitly and unconsciously.

The message is simple, although its implementation is not: worksite health promotion programs will have to be redesigned to address the needs and interests of the blue-collar work force. The literature reveals only a few examples of explicit attention to this task. One analysis described the implementation of a comprehensive health promotion program at a small manufacturing firm. The company confronted the issue of blue-collar participation by adapting the program to the workers' interests and by offering programs during all three shifts.<sup>35</sup>

**The worksite of the future.** The changing demographics of the employee population over the next few decades will call for radical reform of the worksite health promotion enterprise. Specifically, the composition of the nation's work force will exhibit dramatic changes with regard to the elderly, minorities, and women.

*The elderly.* Demographers project substantial growth in the elderly population over the next four decades, the result of both the baby boom and increases in life expectancy. The impact of this population shift on work in the United States appears to be substantial. According to one projection, by the year 2030, when a quarter of the U.S. population will be over age sixty, there will be two million fewer workers ages sixteen to twenty-four than there are today, and twenty-five million more workers ages thirty-five to fifty-four.<sup>36</sup> Thus, the work force will age, and the population of retirees will expand substantially.

Such projections imply that, in the worksite of the future, health promotion will have to shift emphasis from encouraging healthy lifestyles among young and early-middle-aged employees, typically free of major symptoms, to addressing the health promotion needs of middle-aged and older workers. In the hope of minimizing, postponing, or avoiding the disabilities associated with chronic disease, employers may extend the reach of health promotion programs to retirees.

Health promotion for older adults is receiving increasing attention in the literature.<sup>37</sup> If this interest lacks urgency in the contemporary workplace, its future importance is heightened not only by simple demographics, but also by the immediacy of older workers' and retirees' preventable health problems, and thus the potential of health promotion to avert near-term illness and disability and their associated costs. The needs of an older work force and the relative effectiveness of health promotion interventions in addressing them in the short run will shift the mix of health promotion programs in the future, as well as strategies within health

promotion areas.

The irony inherent in today's health promotion in the work setting is that, to the extent that it succeeds in increasing longevity, health promotion will contribute to both an older work force and a larger population of retirees. This in turn will increase the need to search for effective health promotion interventions for older adults. At present levels of activity, however, health promotion's contribution to this concern will be modest compared to the inexorable march of basic demographic trends.

*Minorities and women.* In 1985, almost half (47 percent) of the U.S. work force consisted of white males. White females made up another 36 percent, and the remaining 17 percent included nonwhite Americans (10 percent) and immigrants (7 percent). Between 1985 and 2000, however, only 15 percent of new entrants into the work force are projected to be white males. White females will comprise 42 percent of new entrants; nonwhite Americans will enter at a rate (20 percent) twice that of their current labor force representation; and immigrants will constitute fully 22 percent of new entrants, three times their current representation.<sup>38</sup>

The implications for work in the United States, not to mention health promotion at work, are profound. At the same time that new jobs demand higher skill levels, average educational attainment among new job market entrants is expected to fall.<sup>39</sup> The mix of employee health and behavior problems will change too, as will the demands on health promotion. With immigrants and underprivileged minority youth constituting a significant bloc of new workers, language and literacy problems may complicate the delivery of health promotion programs even more.<sup>40</sup> As with current efforts to tailor health promotion efforts to the needs of the blue-collar population, the work force of the future will demand different approaches to health promotion at the worksite.

The growing presence of women in the work force will alter both work and worksite health promotion. The demands of work and family will necessitate continuing accommodation of employees' needs for flexibility in work hours, day care, and so on. Clearly, the health behaviors and health problems of women will play an increasingly important role in the design and delivery of worksite health promotion programs in the future. The growing importance of family concerns in the future work force may force health promotion programs to expand their reach to employees' children, spouses, and elderly parents.<sup>41</sup>

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## Conclusion

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It would be an exaggeration to credit worksite health promotion with playing a major role in the work life or health of the typical U.S. worker

today. Nevertheless, worksite health promotion seems to have established a legitimacy within the corporate framework. Virtually all large worksites have some degree of health promotion activity, and many have created or expanded departments responsible for wellness programming. The worksite health promotion "movement" is spawning its own set of external institutions, grounded in the business, health, and insurance communities and oriented toward gaining the support of local business leaders for the adoption and implementation of wellness programs.

While the prospect remains that the worksite health promotion "movement" will prove to be a fad, the presence of health promotion activities at the worksite almost certainly will not. Whether the motivation is improved employee health, cost containment, or simply better employee relations, health promotion interventions offer benefits to both employee and employer at modest cost. That the character of those interventions will change is a virtual certainty, however. They will have to evolve to address dynamic changes in the nature of work and of workers in the coming century.

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## NOTES

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