

The Art of Health Promotion

practical information to make programs more effective

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Working Together to Create Supportive Environments in Worksite Health Promotion

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Setting the Stage

Many believe that the “next generation” of health promotion or health management programs will likely include a much more extensive alignment of environmental factors that support a healthy and productive workforce. To address this possibility, a model was conceptualized that integrates an environmentally-based intervention within a comprehensive health management effort. Intervention is directed at both enhancements to the physical aspects of the worksite as well as its cultural makeup, and a series of suggestions are provided for those who want to utilize this model. This comprehensive, environmentally-focused component of the next generation of health promotion programs will expand the population reach of health management to all employees and potentially enhance its overall success. This approach is viewed as critical in creating a healthy and productive work organization, and allows the employer to capture the full economic and human capital benefits of intervention.

The creation of a “supportive environment” for health promotion and wellness is seen as an important development in the field of worksite health promotion, thus our focus on this model within The Art of Health Promotion. In this edition we will examine the following topics:

- Why is “supportive environment” needed?
- Individual versus organizational focus: Finding the “right” balance
- What does the supporting research indicate?

- Introducing a model for creating supportive environments
- Understanding the importance of work factors
- Establishing an organizational health supporting structure
- Establishing a health supporting culture

Why is a “Supportive Environment” Needed?

One of the more noteworthy findings of the past 30 years of worksite health promotion research is the observed association of individual risk factors (e.g. tobacco and alcohol use, biometric levels) to key employer cost variables, such as those linked to medical care, disability, and absenteeism.¹⁻⁴ This research concluded that, in general, risk levels are associated with costs, such that as the

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number of employee risk factors increase, so does the likelihood of employees reaching high cost status. Furthermore, employees drift from low risk, to moderate risk, to eventually high-risk as they age, with employers increasingly bearing the financial burden of this shift.

Subsequent research identified the health and financial benefits of keeping low risk employees at low risk.^{5,6} This emphasis does not ignore individuals at moderate or high risk, but rather, directs the majority of intervention resources to where they may be best utilized. Keeping low risk employees at low risk would appear to be both easier and more cost effective than intervening with high risk employees.⁷

But how could this seemingly straightforward proposal be translated into a suitable framework for workplace health management? The response to this question results in the emergence of a more comprehensive intervention perspective. The goal of health management is less employee-driven than past practice has advocated. Rather, a low-risk focused intervention would be best served by primarily directing activity at the worksite environment, especially when considering that keeping employees at low risk is a career-long proposition. As proposed in the "chameleon theory", just as the lizard changes color to reflect its surroundings, so will employees change behaviors to reflect the health supporting characteristics of their worksites.⁸ To create and maintain healthy employees, simply create healthy environments. The newly coined phrase "organizational health promotion" recognizes this change in intervention emphasis.⁹

Therefore, to begin a dialogue on how to keep low risk employees at low risk, the following will provide: (1) a discussion of the factors driving the environmental change movement in worksite health promotion, (2) an introduction to a model showing the relationship of organizational variables to health and productivity, and (3) an overview of the next generation of health management programs.

Individual Versus Organizational Focus: Finding the "Right" Balance

During the early history of worksite health promotion, the majority of interventions emphasized individual behavioral



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change using educational or cognitive approaches to modify lifestyle.^{10,11} Programs were developed to influence employee health behaviors by improving knowledge, beliefs, attitudes and skills. Many of these activities were proven successful.¹² However, this achievement was qualified. For example, based on numerous assessments of employees from multiple companies, Allen reported that 80% of employees annually attempted lifestyle changes, but only 20% were successful.¹³ Furthermore, the emphasis on the individual labeled disease as a personal failure and gave raise to a victim blaming ideology.¹⁴ Therefore, not only were concerns raised over program efficacy, but others challenged the ethics of placing the onus of health strictly on the employee.¹⁵

In response, scholars have argued for comprehensive programming from the perspective of the larger environment.¹⁶ Thinking evolved to address the weaknesses of earlier strategies and out of this effort stemmed the tenets of social ecology, probably the best theoretical framework to explain an environmental approach to intervention.¹⁷⁻¹⁹

Social-ecology refers to behavior change theories that derive their strategies from the interrelationships between organisms and their environments.²⁰ An individual's well-being is influenced by genetic predispositions, and his psychological and behavioral traits; but these personal characteristics are influenced by the wider physical and social environments he inhabits. This recognition argues for health promoters to approach intervention from an integrative perspective and address both individual cognitive factors and environmental characteristics together.²¹

Environmental interventions are characterized in many ways. Glanz and Mullis (1988) classify environmental interventions as, "that class of strategies that do not require individuals to self-select into a defined educational program" (p. 397).²² Schmid, Pratt and Howze (1995) define environmental interventions as "any measures that alter or control the physical or social environment" (p. 1208).²³ They emphasize a policy change approach to that end. Hovell, Wahlgren and Gehrman (2003) explain health behavior as a function of the reinforcement contingencies found in the environment.²⁴ The availability of certain cues, density of role models, barriers and/or access points, and the reinforcement schedules that these and other environmental features provide, are instrumental in shaping health behavior.

With consideration of the above, this paper defines the worksite environment as all social and physical influences on behavior. Therefore, the "next generation" of comprehensive health management programming would address structural factors, such as facilities, benefit plans, and policies; as well as cultural factors, such as norms, social supports, symbols, rites and rituals. Although this paper emphasizes the importance of the organizational environment, the authors recognize that external environments, including the broader business environment, household and community, also play an important role in determining health behavior.

What Does the Supporting Research Indicate?

Several recent meta analyses support the utility of interventions addressing the wider worksite environment.²⁵⁻²⁷ In general, interventions that combined incentives, facility access, availability of healthy foods, policy supports, and targeted communication campaigns, among other related strategies, showed considerable promise in influencing health behaviors.

The New York State Department of Health's environmentally focused Worksite Wellness component of its Healthy Heart Program, may serve as a model for such efforts. Fundamental to this initiative was the development of an assessment tool that measured organizational environmental supports for employee heart health; the Heart Check.²⁸ Using Heart Check data, research showed that many New York employers had low levels of environmental supports. However, following multiple interventions with over 200 worksites, changes in total Heart Check scores showed average increases of about 75%, with corresponding improvements of 114%, 143% and 109% observed for the nutrition, physical activity, and administrative support sub-sections, respectively. These results were evident for a modest \$50,000 per year per project. These findings are important because recent research shows an inverse relationship between Heart Check scores and a number of employee risk factors.²⁹

Introducing a Model for Creating Supportive Environments

Figure 1 introduces the *Organizational Health Environment*, which consists of a combination of the company's *work factors*, its *physical structure*, and *organizational culture*. Each is discussed in the following.

Work factors include, for example, the industrial sector, the organization's size, its management style, and the level of employee autonomy, job control, decision latitude, and the formal procedures that drive work. Other dimensions of *work factors* include the economic business climate, such as profitability, competition, required pace of innovation and economic outlook. *Structural factors* refer to the tangible features of any health management initiative. These observable characteristics include health enhancing facilities, services, policies and procedures, the benefits plan, and any program promotional and awareness building activities. Program administration also fits here. *Cultural factors* include such variables as cultural norms, cultural values, and peer supports. They also include more subtle influences on behavior, such as peer modeling, social recognition; and symbols, rites and rituals (see Figure 1).

As the Model shows, health behavior is also influenced by environments outside of work, such as those experienced in the employee's household, the local community, and from

institutions in the broader society, such as the health care system, public health agencies, and the media. These "outside of work" characteristics are simply labeled *exogenous factors*. Of note, the phrase *in/out migration* of employees reflects the realization that both new hires and the loss of existing employees continually change the health climate of the workforce.

All of these characteristics have an effect on the employee, including their *predisposing factors* (e.g., attitudes, knowledge, beliefs, values and skills); *health behaviors* and *risk factors*. However, the organizational health environment is where the workplace has its best opportunity to influence employee health. It can directly affect employee health through education and policy mandates, indirectly affect employee health by promoting a health supporting culture, or apply some combination of both.

The model continues by showing the impact of employee factors on both *health status* and *work performance*. In general, healthy employees imply fewer risk factors and, therefore, better-controlled *health related costs* and improved *productivity*.³⁰

The group that largely defines the organizational health environment is the *organizational leadership*—i.e., senior management (e.g., the owner, president, chief executive officer, chief financial officer, director of human resources and others). What resources the company provides, what policies are in place, and what management style is utilized, are driven by the decisions of this group.

In summary, this paper interprets the Model as a confluence of work, structural and cultural factors. These factors are interdependent and overlap significantly, yet they offer a useful framework for environmental assessment and intervention planning. The following discussion further defines these variables and explores strategies for improvement.

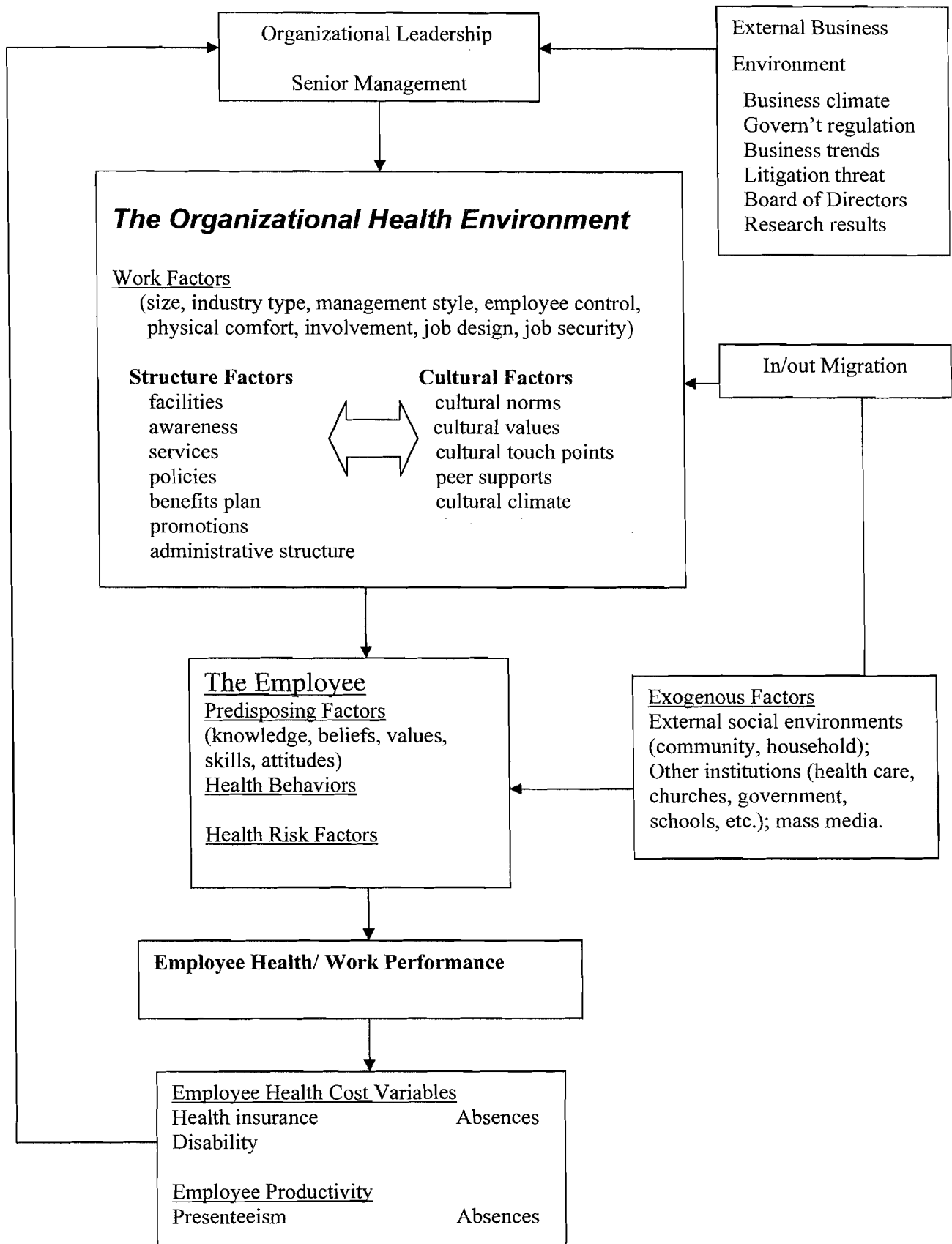
Understanding the Importance of Work Factors

Work factors, such as organizational size, its profitability, and quality and speed of innovation, have a profound impact on the health of the workforce.³¹⁻³³ Work factors are the primary business of the organization and are a shared responsibility of all work groups and decision makers. However, as currently practiced, most are unlikely to be under the control of those engaged in health promotion.

Efforts to address work factors tend to fall within the broad scope of organizational development. These initiatives address organizational goals by applying such business tactics as reengineering, quality circles, diversity, team building and leadership. The next generation of health management might apply these strategies, but with a much broader purpose by integrating work factor concerns with matters of employee health. Consider the following examples.

- *Mitigating Business Decisions.* Health management must address work factors and job design so that negative

Figure 1
The Organizational Health Environment Model



health consequences of any number of business decisions can be mitigated. Informed decisions can be made which include the likely health consequences of possible future directions. For example, if the company decided to lengthen work shifts, health management professionals would examine the possible health consequences of this action and determine what steps can be taken to address its impact.

- *New Strategic Directions.* If work factors call for new strategic directions, health management professionals would develop plans to increase their likelihood of success. So, if the company elects to move towards greater quality improvement, the same quality improvement language and focus would become integrated into any health management programming as well. In a similar manner, health management would respond to new organizational priorities, such as safety, recruitment, retention, and public image.
- *Creating Social Capital.* Health management would also help to create social capital and a work climate that makes it possible to address work factors. For example, health management programs would work to improve the overall organizational social atmosphere by giving people opportunities to help one another and to reach across organizational boundaries. Health management programs would be designed to enhance the organization's sense of community, shared vision and positive outlook.
- *Enhancing Economic Performance.* Healthy people have a greater capacity to do their jobs while at work. Therefore, health management programs would have an important and expected role in contributing to bottom line results as would any other organizational unit.

By applying the above to the fullest, the health management initiative would become both more visible and valued in the organization. To make such a transition likely, the institution of a strong health supporting structure would appear necessary.

Establishing an Organizational Health Supporting Structure

Structure is defined as the tangible organizational characteristics that support employee health. These characteristics have a visible presence, hence their labeling under structure. The following briefly describes structural characteristics that are fundamental to a comprehensive health management effort. These strategies are consistent with theoretical concepts that support long-term behavior change, including social ecology,¹⁷ social learning theory,^{34,35} behavior modification,³⁶ and social marketing.³⁷

1. Create a Health Initiative Administrative Structure: Borrowing from the work of Best and others along with the author's personal experience, a suggested framework for addressing administrative structure is presented.²¹ Whether termed health promotion taskforce or wellness committee, this assembly would be organized by the following characteristics.

- *Standing Committee Status.* Senior management should recognize this body as a standing (versus ad hoc) working group. This recognition is typically granted through formal written authorization from the chief executive officer, and includes at least the identification of a chair and key members, a mission statement, and the power to enact policy.
- *Senior Management Representation.*
- *An Operating Budget.*
- *Stakeholder Representation.* Included with this group are key stakeholders, such as representatives from human resources, medical, safety, finance, training departments, and unions.
- *Employee Representation.* The group needs broad representation from the general employee population, either as standing committee members or as participants in advisory sub-committees.
- *Accountability/ recognition.* The group needs a chairperson with health promotion responsibilities included in the annual review and an award mechanism that recognizes success.
- *Data Access.* This group needs access to an integrated data management system that includes such employee health variables as medical costs, personnel records, absenteeism; and results from health risk appraisals and other related health assessments. Likewise, the system needs the inclusion of safeguards to protect the integrity of the data and anonymity of respondents.
- *A Health-focused Mission Statement.* To drive organizational behavior and long-term commitment, the group needs to add a reference to employee health in the company mission statement.

As the number of these administrative features increase, the likelihood that health management will be efficiently coordinated, that ownership will be broad based, that the effort will have sufficient resources and accountability, and that it will be taken seriously, will also increase. In other words, as the administrative structure improves, so do the odds of success.

2. Measure the Health Supporting Structure of the Workplace: If the organization's health supporting structure is the object of interest, then measuring it is essential in the environmental change process. Beyond the aforementioned Heart Check,²⁸ a number of new and metrically tested tools are emerging that measure an organization's health promoting characteristics.³⁸ Virtually all analyze the factors proposed in the following discussion.

3. Adopt Health-supporting Policies: Workplace policies are the rules that govern employee behavior. They serve to mandate or encourage/discourage certain employee behaviors while on the job and, to a lesser extent, their behaviors off the job. Perhaps the most researched health-related policy concerns smoking bans, which appear particularly effective in decreasing tobacco use.³⁹ But other policy mandates could be adopted, such as: requiring healthy foods at company meetings or events, extending lunch breaks to exercise, introducing flexible working hours, allowing work at home opportunities, and prohibiting payment for alcohol products at company events or work-related travel.

4. Communicate an Awareness of Health Issues:

Awareness building is a broad category that contains multiple communication functions and delivery methods. It serves at least four useful purposes in health management: (1) excite interest in health promotion activities; (2) provide needed background information to enhance health knowledge; (3) shape and reinforce positive beliefs, attitudes and behaviors related to a wellness lifestyle; and (4) provide information on service use opportunities.⁴⁰ Awareness building communications may be the thread that ties all of these model components together. Health risk appraisal, e-mail messages, posters, newsletters, lectures, and health fairs, among many others, all serve this purpose.

5. Provide Health-supporting Services: Services refer to company efforts to provide education, support, and skill training to enhance the health behavior change process or benefit health directly. They differ from awareness building activities in both intensity and duration; and most are delivered by highly trained professionals. Services largely function to modify the employee's skills and cognitive domain, and include a variety of educational programs delivered in varying formats, such group training, telecommunications, e-mail messaging, computer programs, or self-learning guides; screening tests, lifestyle counseling; and Employee Assistance Programs. In addition, a variety of new technologies and strategies have emerged that should drive the next generation of educational services, including risk stratification, message tailoring, program tailoring and individual coaching. The application of these and other new technologies to any services would likely increase their effectiveness.

6. Develop Health-supporting Facilities: The presence of the right structural features on the work premises makes healthy behavior and/or a quality work life more likely to occur. They eliminate barriers to practice by making healthy behaviors convenient or less costly; or decrease job stress by addressing the employee's social or psychological needs. For example, physical activity enhancements might include access to shower and changing rooms, safe and well-lighted stairwells, bike racks, and outdoor playing fields. Facilities to encourage healthy eating might include healthy and moderately priced foods in the cafeteria, and regularly scheduled farmers markets to allow onsite purchase of fresh produce. Other facility considerations that improve the quality of work life or moderate stress include: onsite day care centers, relaxation practice areas, lactation rooms, and comfortable employee lounges.

In addition to the above, the concept of health enhancing facilities should be broadened to workplace characteristics that are not necessarily personal behavior change oriented. A clean, safe, appropriately lighted, and ergonomically correct workplace contribute to a healthful working environment and are fundamental to any health initiative.⁴¹

7. Modify the Benefits Plan to Support Health:

Benefits are an extension of the compensation package and serve as part of the organization's reward system. A number of strategies exist to couple tangible health benefits with

wellness supporting activities; thereby shaping employee health behavior toward a more prudent lifestyle.⁴² These benefit plan features may include linking the availability of health insurance to taking an annual health risk appraisal,⁴³ or adjusting employer contributions to the cafeteria benefits plan based on their level of risk factors.⁴⁴

Modifications in the benefits plan to support employee health are not limited to incentives or disincentives. Stokols, Pelletier and Fielding (1995) argue for an integration of worksite health promotion with the medical care system.⁴¹ The authors suggest that employers seek out insurance plans that have a health promoting emphasis and align the company benefits plan to take advantage of what the health care system has to offer. For example, the insurance plan should pay for both employees and family members' coverage for screenings, but also provide access to practitioners with a health promotion emphasis and service capability. Other considerations include mutual referral mechanisms between community clinicians and worksite health promotion staff for high risk employees.

8. Promote Health supporting Services and Facilities:

Taking advantage of a health promotion service (e.g., attending a class) is similar to purchasing a product. Employees exchange their time, energy, anxiety, and sometimes their money for its consumption. Promotions are useful in the health management initiative because they attract attention, excite interest, enhance a sense of urgency, and ultimately stimulate need for the consumption of health promoting services and facilities.

Incentives fit well this definition, and benefits plan incentives, as discussed earlier, are one important strategy. But other less-complex incentives are useful as well, such as time off from work to complete a cholesterol test, material gifts for participating in a workshop, or prize raffle drawings to increase attendance at a health fair. Other forms of promotions include: full or partial reimbursements and/or discounts for commercial health club memberships, full or partial rebates for completing health education classes, and the use of celebrity guests at program kickoff events and meetings.

In summary, the organizational structure refers to the tangible characteristics of the workplace environment that support health. These structural components make the practice of healthy behavior more likely to occur. Even if employees don't always take advantage of them, because of their visibility, they convey strong messages about what the organization finds important. Thus they also play a role in shaping the social norms and values of the workforce. These later points introduce the next section of this paper that focuses on the non-tangible health characteristics of the workplace.

Establishing a Health Supporting Culture

Cultural influences work in conjunction with the physical environment and formal, policies, procedures and program to shape behavior. The culture provides a lens for

interpreting and carrying out health promoting activity. So, for example, it may be a norm to work through lunch even though a lunch hour is written into company policy. One way to reveal the inner workings of organizational cultures and reference groups is to examine their shared cultural values, norms, cultural touch points, peer support and climate.

These influences work together to shape behavior. Several indices are available to assess the organizational culture.^{13,15-46} Additional strategies for revealing the culture include field experiments, participant observation and focus interviews. These culture change approach is based on successful efforts implemented in multiple settings over the past 30 years.^{13,47}

Definitions of cultural influences as well as actions that can be taken to address these influences are provided in the following.

1. Shaping Cultural Health Values: Cultural values are commonly held beliefs about the relative importance of an outcome or behavior. They are different from individual values or an average score for individual attitudes. When people agree about the priority being assigned to an outcome, it is a cultural value.

Cultural values tend to be shaped by communication (formal and informal). Leaders can often set the tone for cultural values and this may be reinforced by having employees articulate their priority beliefs on a given outcome. Sometimes employees will take cues on cultural values from their perceptions of cultural norms and cultural touch points. For example, the closing of a corporate fitness facility may mean that physical activity is no longer a cultural value.

Health promotion can be directed at strengthening cultural values for healthy behavior through some of the following suggestions.

- *Raise the visibility of benefits of healthy lifestyles.* It is useful in program communications to point out unexamined benefits, such as the positive impact of healthy lifestyles on life expectancy, quality-of-life, disease management, medical cost control, productivity and reduced absenteeism.
- *Raise the visibility of leadership activity.* Highlight the steps organizational leaders are taking to promote healthy lifestyles (e.g., newsletter features).
- *Encourage employee forums.* Give employees an opportunity (e.g., newsletter section, company meeting) to discuss their enthusiasm for health promotion goals and benefits.
- *Showcase organizational action.* Find a high visibility way to show that the organization is taking health promotion goals seriously (e.g., inclusion of employee health in the mission statement). Addressing some of the cultural touch points discussed later may also be helpful.

2. Shaping Cultural Health Norms: Cultural norms are sometimes referred to as “the way we do things around here.” Cultural norms are not statistical averages, but instead, are related to social standards of appropriate behavior. Cultural norms are accepted and expected practice. A norm may or may not coincide with laws and policies. Norms have different strengths, and the conse-

quence for violating norms varies. Health promotion should be directed at creating norms that support health behavior and allow for individual choice.

Several activities are specific to norm change and include the following:

- *Identify key norms for health promotion success.* A norm goal could be set for having a daily exercise routine. Another norm goal could be set for incorporating physical activity into work breaks or informal one-on-one meetings.
- *Conduct qualitative assessments.* Use interviews, field experiments and surveys to assess desired norms and track normative change. For example, a newly hired employee might be asked to engage in positive or negative health behavior. This employee could then be interviewed to determine his or her experience of any pushback from the culture. Such experiments help tailor interventions to those factors that are shaping norms.
- *Evaluate ideal versus actual norm levels.* Ask employees to assess the gap between current norms and what they would prefer. Then inform employees about how others see the same norm gap. Focus program decision making on closing the gap.

3. Using Cultural Touch Points: Touch points are both informal and formal mechanisms by which the culture is maintained. The formal mechanisms (e.g. corporate newsletter) embedded in organizational structures are influenced by informal mechanisms (e.g. the grape vine). The culture provides a lens for interpreting structure. Some of these touch points are:

- **Resource Commitment** includes the allocation of time, money and space. A culture influences behavior by giving people the wherewithal to be able to do it. The quality, location and upkeep of the resources help to make the practice a norm. Sometimes work and/or family responsibilities are adjusted to make it possible to practice the behavior. Resource commitment may or may not correspond to a workplace policy.
- **Modeling** is exhibited by both formal leaders (e.g., CEO) and by informal peer leaders. In the health area, it may be necessary to increase the visibility of good role models or to vary the types of role models (i.e., gender, age, achievement).
- **Rewards and recognition** have many faces in a culture. Sometimes the best rewards take the form of encouragement, while in other cultures a good reward must come in the form of a check. Sometimes unhealthy practices (e.g., workaholic behavior) are rewarded through promotions. Often positive health behaviors go unacknowledged.
- **Confrontation and discouragement** are the flip sides of rewards and recognition. Too often positive health practices are confronted or discouraged. Health promotion would make efforts to reduce this influence. It may also be the case that unhealthy practices would be confronted or discouraged (e.g., enforcement of no-smoking policies).

Tips for Utilizing Cultural Touch Points

- Integrate new initiatives into existing policies and programs (e.g., use the existing bonus system for promoting healthy lifestyles).
- Work with cultural strengths and opportunities and opportunities for improvement. Be sure to honor and reinforce positive aspects of the organization.
- Utilize multiple touch points. Relying too heavily on one or a few touch points (e.g. just rewards) often leads to an undesired push back from the culture.

- **Recruitment and selection** includes not only who is pursued for jobs, but also the impression made by the company to candidates. The interview process, the tour that is given and the final offer, define the culture. Consistent with health related policy reform, a company may require managers to review the health promotion program with prospective employees. The organization may also define itself as a “wellness company” in job ads. Ideally, a company would establish a reputation for being a healthy place to work. In the long run, its reputation might enhance the ability to attract and retain health oriented employees.
- **Orientation** is the sum total of early job experiences. The formal orientation may include a video, workshop or the shadowing of an experienced employee. Orientation also occurs after work and during breaks when coworkers explain how the organization “really” functions. At the very least, formal orientation can place an emphasis on the health promotion initiative.
- **Training** is both a formal and an informal practice. Healthy cooking techniques, for example, may be included in a health class and, hopefully, be shared at the lunch table. Likewise, training on the cultural effects on health behavior can be added to traditional risk factor educational offerings.
- **Communication systems** include written, verbal and non-verbal information about behavior. Is there awareness of health promotion resources and activities? How is the health of the company measured? Are findings shared? Are health promotion goals discussed? Are healthy lifestyles mentioned in the mission statement, annual report, newsletters, websites and other corporate communications? Health promotion must work to maintain high visibility, offer useful feedback, and keep employees aware of available programs and resources.
- **Relationship development** includes how people form friendships, collaborations and teams. Do, for example, people form their friendships around healthy activities? In some leadership circles, for example, a round of golf affords opportunities to plan future collaborations. Health promotion must work to make healthy activities appropriate venues for friendship and professional partnership.
- **Rites, symbols and rituals** carry special meanings. For example, company sponsorship of athletic events may have symbolic importance in a company culture.

Designated parking places for VIPs also carry cultural messages. The location and availability of fitness facilities also offers a symbolic message. The coffee and cigarette break say a lot about the culture. Health promotion must work to get rites, symbols and rituals to support healthy lifestyles. So, for example, it becomes a ritual for industrial workers to join in a simple stretching routine before their shift begins.

4. Encouraging Peer Support: Peer support is defined as the quality and quantity of assistance offered for behavior. Support can be instrumental and/or emotional in nature. For example, covering for work assignments or offering constructive feedback on work assignments are both forms of instrumental support. Words of encouragement are examples of emotional support. In business, support is sometimes called teamwork or watching someone's back.

The quantity and quality of peer support can be enhanced by the following strategies.

- *Mobilize existing support systems.* Health promotion may engage existing or natural peer support systems found in workgroups, departments or households. For example, family and housemates could be invited to participate in health promotion programs.
- *Develop mutual support systems.* Health promotion may also develop new mutual support entities, such as mentoring, buddy systems, support groups and teams.⁴⁸

5. Building a Supportive Cultural Climate for Wellness: Cultural climate refers to the overall cohesiveness of the culture. Common features such as trust, a sense of common purpose, and hopefulness, help to make members of a culture feel connected. Cultural climate qualities, for example, a sense of community, a shared vision and a positive outlook, have been found to facilitate individual and organizational change.⁴⁹ Further, there is a link between cultural climate factors, such as a sense of community, to positive health outcomes, including life expectancy, resistance to disease and recovery from illness.⁵⁰ In business, cultural climate is sometimes called social capital.

Cultural Climate could determine the effectiveness of any health management initiative. A lack of trust and overall friendliness, for example, could undermine participation in assessments and programming. In contrast, a good climate could increase the range and scope of health promotion activities. Given a good work climate, employees may, for example, be open to discussing their health risks and involving their families in health promotion activities.

The following activities enhance cultural climate.

- *Foster a sense of community.* Create opportunities for employees to meet informally, to share personal interests and to help one another. Community building activities are structured so that people get to know one another beyond just knowing job responsibilities. Community

building sometimes involves retraining managers so that they foster a climate of trust and openness rather than fear and suspicion.

- *Foster a shared vision.* Employees need opportunities to see how their work supports larger goals. These goals must be inspirational and worthy of employee interest. The vision must be consistent with the core organizational mission and values, as well as the personal values of employees.
- *Foster a positive outlook.* Employee strengths and opportunities must be emphasized. A management practice of blame placing should be minimized. Challenges are not overlooked, but rather, people are asked to address those challenges. And when success occurs, workplaces must find the time to celebrate.
- *Foster cultural climate with health promotion.* Traditional health promotion often undermines climate by focusing on individual deficits and disease. These programs can be reformulated to emphasize positive qualities, such as mutual support, healthy fun and achieving full potential.

Summary and Conclusions

This paper presented a broad, environmentally-based focus of intervention to represent the next generation of health management programs. The need for this type of intervention evolved from the challenge of keeping low risk employees at low risk, and thereby enhancing the overall health and productivity of the workforce. Drawing primarily from the tenets of social ecology, the concept of the organizational health environment was introduced as the focal point in understanding what drives employee health and what is manageable by the employer. A number of intervention leverage points were identified addressing both structural and cultural components within this model.

The proposed environmental intervention, when included as part of a comprehensive next generation health management program, should achieve a wider spectrum of successful lifestyle changes, reaching those reluctant to participate in current interventions, and enhancing the success of existing "individually focused" high risk reduction efforts. However, over the long run, the authors presume that this approach will probably show its greatest value by keeping low risk employees at low risk.

This paper has argued for the interconnectedness of health issues and environments as recognized by the field of social ecology. In working towards this goal, the ideal would be to have healthy individuals, in healthy households, in healthy worksite, in health communities, in a healthy nation, on a healthy planet.

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Selected Abstracts

Social-Cognitive Determinants of Physical Activity: The Influence of Social Support, Self-Efficacy, Outcome Expectations, and Self-Regulation Among Participants in a Church-Based Health Promotion Study.

Anderson ES, Wojcik JR, Winett RA, Williams DM.

A social-cognitive model of physical activity was tested, using structural equation analysis of data from 999 adults (21% African American; 66% female; 38% inactive) recruited from 14 southwestern Virginia churches participating in the baseline phase of a health promotion study. Within the model, age, race, social support, self-efficacy, and self-regulation contributed to participants' physical activity levels, but outcome expectations did not. Of the social-cognitive variables, self-regulation exerted the strongest effect on physical activity. Independent of self-regulation, self-efficacy had little effect. Social support influenced physical activity as a direct precursor to self-efficacy and self-regulation. The model provided a good fit to the data and explained 46% of the variance in physical activity among the diverse group of adults.

Health Psychol. 2006 Jul;25(4):510-20.

Individual, Social Environmental, and Physical Environmental Influences on Physical Activity Among Black and White Adults: A Structural Equation Analysis.

McNeill LH, Wyrwich KW, Brownson RC, Clark EM, Kreuter MW.

BACKGROUND: Social ecological models suggest that conditions in the social and physical environment, in addition to individual factors, play important roles in health behavior change. Using

structural equation modeling, this study tested a theoretically and empirically based explanatory model of physical activity to examine theorized direct and indirect effects of individual (e.g., motivation and self-efficacy), social environmental (e.g., social support), and physical environmental factors (e.g., neighborhood quality and availability of facilities). METHOD: A community-based sample of adults (N = 910) was recruited from 2 public health centers (67% female, 43% African American, 43% < \$20,000/year, M age = 33 years) and completed a self-administered survey assessing their current physical activity level, intrinsic and extrinsic motivation for physical activity, perceived social support, self-efficacy, and perceptions of the physical environment. RESULTS: Results indicated that (a) perceptions of the physical environment had direct effects on physical activity, (b) both the social and physical environments had indirect effects on physical activity through motivation and self-efficacy, and (c) social support influenced physical activity indirectly through intrinsic and extrinsic motivation. For all forms of activity, self-efficacy was the strongest direct correlate of physical activity, and evidence of a positive dose-response relation emerged between self-efficacy and intensity of physical activity. CONCLUSIONS: Findings from this research highlight the interactive role of individual and environmental influences on physical activity.

Ann Behav Med. 2006 Feb;31(1):36-44.

Perceived and Objective Environmental Measures and Physical Activity Among Urban Adults.

Hoehner CM, Brennan Ramirez LK, Elliott MB, Handy SL, Brownson RC.

BACKGROUND: Enhancing community environments to support walking and bicycling serves as a promising approach to increase population levels of physical activity. However, few studies have simultaneously assessed perceptions and objectively measured environmental factors and their relative association with transportation or recreational physical activity. METHODS: For this cross-sectional study, high- and low-income study areas were

selected among census tracts in St. Louis MO ("low-walkable" city) and Savannah GA ("high-walkable" city). Between February and June 2002, a telephone survey of 1068 adults provided measures of the perceived environment and physical activity behavior. In this timeframe, objective measures were collected through environmental audits of all street segments (n = 1158). These measures were summarized using 400-m buffers surrounding each respondent. Neighborhood characteristics included the land use environment, transportation environment, recreational facilities, aesthetics, and social environment. Associations were examined between neighborhood features and transportation- and recreation-based activity. RESULTS: After adjusting for age, gender, and education, transportation activity was negatively associated with objective measures of sidewalk levelness and perceived and objective neighborhood aesthetics. It was positively associated with perceived and objectively measured number of destinations and public transit, perceived access to bike lanes, and objective counts of active people in the neighborhood. Recreational activity was positively associated with perceived access to recreational facilities and objective measures of attractive features. CONCLUSIONS: These findings indicate that physical activities for transportation or recreational are associated with different perceived and objective environmental characteristics. Modifications to these features may change the physical activity behavior of residents exposed to them.

Am J Prev Med. 2005 Feb;28(2 Suppl 2):105-16.

Team Awareness, Problem Drinking, and Drinking Climate: Workplace Social Health Promotion in a Policy Context.

Bennett JB, Patterson CR, Reynolds GS, Witala WL, Lehman WE.

PURPOSE: (1) To determine the effectiveness of classroom health promotion/prevention training designed to improve work climate and alcohol outcomes; (2) to assess whether such training contributes to improvements in problem drinking beyond standard workplace alcohol policies. **DESIGN:** A cross-sectional survey assessed employee problem drinking across three time periods. This was followed by a prevention intervention study; work groups were randomly assigned to an 8-hour training course in workplace social health promotion (Team Awareness), a 4-hour informational training course, or a control group. Surveys were administered 2 to 4 weeks before and after training and 6 months after posttest. **SETTING AND SUBJECTS:** Employees were surveyed from work departments in a large municipality of 3000 workers at three points in time (year, sample, and response rates are shown): (1) 1992, n = 1081, 95%; (2) 1995, n = 856, 97%; and (3) 1999, n = 587, 73%. Employees in the 1999 survey were recruited from safety-sensitive departments and were randomly assigned to receive the psychosocial (n = 201), informational (n = 192), or control (n = 194) condition. **INTERVENTION:** The psychosocial program (Team Awareness) provided skills training in peer referral, team building, and stress management. Informational training used a didactic review of policy, employee assistance, and drug testing. **MEASURES:** Self-reports measured alcohol use (frequency, drunkenness, hangovers, and problems) and work drinking climate (enabling, responsiveness, drinking norms, stigma, and drink with co-workers). **RESULTS:** Employees receiving Team Awareness reduced problem drinking from 20% to 11% and working with or missing work because of a hangover from 16% to 6%. Information-trained workers also reduced

problem drinking from 18% to 10%. These rates of change contrast with changes in problem drinking seen from 1992 (24%) to 1999 (17%). Team Awareness improvements differed significantly from control subjects, which showed no change at 13%. Employees receiving Team Awareness also showed significant improvements in drinking climate. For example, scores on the measure of coworker enabling decreased from pretest (mean = 2.19) to posttest (mean = 2.05) and follow up (mean = 1.94). Posttest measures of drinking climate also predicted alcohol outcomes at 6 months. **CONCLUSION:** Employers should consider the use of prevention programming as an enhancement to standard drug-free workplace efforts. Team Awareness training targets work group social health, aligns with employee assistance efforts, and contributes to reductions in problem drinking.

Am J Health Promot. 2004 Nov-Dec;19(2):103-13.

Associations of Perceived Social and Physical Environmental Supports With Physical Activity and Walking Behavior.

Addy CL, Wilson DK, Kirtland KA, Ainsworth BE, Sharpe P, Kimsey D.

We evaluated perceived social and environmental supports for physical activity and walking using multivariable modeling. Perceptions were obtained on a sample of households in a southeastern county. Respondents were classified according to physical activity levels and walking behaviors. Respondents who had good street lighting; trusted their neighbors; and used private recreational facilities, parks, playgrounds, and sports fields were more likely to be regularly active. Perceiving neighbors as being active, having access to sidewalks, and using malls were associated with regular walking.

Am J Public Health. 2004 Mar;94(3):440-3.

The First Years of Implementation of the Swiss National Environment and Health Action Plan (NEHAP): Lessons for Environmental Health Promotion.

Kahlmeier S, Künzli N, Braun-Fahrländer C.

The National Environment and Health Action Plans (NEHAPs) are a novel attempt to integrate environmental protection and health promotion in political programmes. Throughout Europe, about 40 NEHAPs have been developed so far. The Swiss NEHAP was among the first to be developed in an industrialised country. We discuss strength and weaknesses of the Swiss NEHAP and draw first conclusions on the development and implementation process of such programmes, illustrated by examples of other European NEHAPs. The strengths of the Swiss NEHAP lie in the formulation of specific targets in selected areas, its approach as an environmental health promotion programme, and its comprehensive evaluation. Weaknesses in most NEHAPs are the lack of involvement of the general public and of the economic sector, and the absence of an implementation strategy along with adequate financing.

Soz Präventivmed. 2002;47(2):67-73.

Closing Thoughts

By Larry S. Chapman, MPH



Our authors for this edition of *The Art of Health Promotion* make a persuasive case for the importance of supportive environment within work organizations for health promotion and wellness. I tend to agree with them. Much of my own 25+ years in the health promotion field have been focused on creating supportive environments for healthy behavior. But, I also find myself feeling the tug and

pull of somewhat diametrically opposed philosophical positions.

Some hold the view that almost all individual-centric change efforts in health promotion are virtually worthless because of the high rate of recidivism over time, or inversely, the low rate of long term success with specific health behavior change, such as tobacco cessation, weight management, physical activity, nutrition/dietary changes, stress management practices, seat belt use, etc. Typically, as mentioned in the main article, the figure 20% is used to approximate the percent of individuals receiving interventions, such as HRAs, biometric screening, wellness coaching, tailored communication, newsletters, personal incentives and eHealth interventions, who are typically successful in maintaining a new health behavior 12 months after the end of the formal program intervention.

Others believe that with this relatively low rate of long term success associated with individual-centric interventions that environmental or cultural interventions are the only viable strategies for creating sustaining long term change in the health behaviors of members of populations. Thus we find the social ecology camp that would presumably seek to channel all health promotion resources into population or cultural interventions.

The cognitive dissonance that I mentioned I was feeling earlier gets very intense when you don't have enough resources to do both an individual-centric health promo-

tion effort and a supportive environment or culture-centric approach. Where do you then invest your resources?

Obviously the most attractive solution is to get enough resources to do both. But how realistic is that? In thinking through the implications of these philosophical undercurrents several challenging questions come to mind.

1. Have we actually found the "right" mix of individual-centric interventions that will produce higher than a 20% success rate at one year after the end of the formal program intervention?
2. Have we demonstrated that we have the capability to deliver this "right" mix of individual-centric interventions to any population, at will over time?
3. The "systems thinking" perspective inherent in the creation of supportive environments for health promotion is attractive, potentially very powerful behaviorally and necessary for cultural change, but what work organizations are stable and intentional enough to put all (or most) of these interventions in place and keep them in place over time?
4. With the majority of the U.S. labor force employed in organizations with fewer than 100 employees how can we create supportive environments that are sufficient for supporting health promotion in these small employer settings?
5. In market based economies, is the seemingly relentless pressure for economic performance likely to encourage or allow all of the nurturing activity inherent in the recommended elements of supportive environment suggested by the authors?

In closing, these hard realities should not prevent us from being strong advocates of the importance of working together to create supportive environments for health promotion and wellness, but I believe we need to do so from an informed and realistic perspective.

Larry S. Chapman, MPH, is Editor of The Art of Health Promotion.

ERRATUM

The "In This Issue" section (on page 1) of the November/December 2007 issue of *The Art of Health Promotion* included the incorrect title and byline. It should read "Using a Health and Productivity Dashboard: A Case Example by John E. Riedel".