

Awareness, Risk Perception, and Communications Breakout Session

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Overview

Women often act as influencers and gatekeepers in family health (1-3) and thus are an important target audience for smoking cessation messages. Informational and persuasive messages must be crafted in such a way that women will carry these messages through their webs of exposure, affiliation, and influence. However, messages must resonate with women before they will disseminate them, so the messages must reflect the cultural or social groups to which women belong, including groups based on ethnicity, race, sexual orientation, religion, and worldviews and values. Furthermore, effective messages must take into account women's current understanding of the health risks associated with smoking and the perceived barriers that counter cessation efforts (4).

Evidence-based research is the key to developing best practices that effect behavioral changes in women's tobacco use reduction and prevention (5, 6). Given that the science is rapidly evolving, these best practices must be disseminated promptly to practitioners and consumers who can provide feedback to ensure that researchers generate information that is useful and applicable. A potentially effective means of information dissemination is to target existing groups that already support women and women's causes. Such groups will need to understand how to process and filter new findings and media portrayals of emerging scientific information in order to use this information effectively. Researchers and public health professionals have a responsibility to translate basic research into effective smoking cessation and prevention messages that can be disseminated by women's groups and the media for broad public impact.

Recommendations

Research

*1. Understand knowledge and risk perceptions.

Basic and applied research are needed on women's current level of knowledge about the risks of smoking and their assessment of personal risk. To be effective, risk communication needs to be based on an understanding of: (a) accuracies and inaccuracies in women's knowledge about tobacco use, prevention, and cessation; and (b) the interplay of affective (experiential) and analytic approaches to assessing risk and deciding what course of action to take. This research should identify mechanisms to which women will respond and focus on different ethnic, socioeconomic, and health status groups across the lifespan.

Examples of specific topics include:

- *Knowledge of addiction.* Little is known about women's perceptions of the addictiveness of cigarette smoking and their understanding of the process by which they become addicted. Research does show, however, that girls may lack a basic understanding of the power of nicotine. In a 2001 study, investigators found that 24 percent of girls ages 12 to 18 believed, "Even if I smoke cigarettes regularly, I could stop anytime I want" (7). This misperception was even more common (41 percent) among girls who were already tobacco users. Further research is needed to explore how beliefs about the addictiveness of tobacco are formed and how prevention messages can counteract inaccurate impressions of individual control.

* Recommendations with an asterisk are those identified by the breakout groups as their top three recommendations.

- *Knowledge of health consequences and risk perception.* Some smokers may not be aware of the connection between their behavior and their health. For example, investigators on one study found that current smokers were less likely than those who had never smoked to agree that health risk behaviors associated with smoking may increase risk for breast cancer (8). Are some specific groups of women simply unaware of the risks associated with smoking? How do we reach these women who have not been hearing the message? Even if women are aware of the health risks associated with smoking, they often have a perception of personal safety or “self-exemption” from the consequences. Smokers exhibit more perceived self-exemption than nonsmokers from both smoking and nonsmoking health risks (9). Further research is needed to explore how, other than through actual experience, women can be encouraged to view the dangers of smoking as personally relevant.

Disparities

Research on risk perception can address disparities by including groups of women who have not typically responded to tobacco control messages in the conduct of the research. Application of the research results could make these groups more likely to attend to and make use of information to induce needed change.

Partners

Government needs to play a critical role in providing funding for basic research and earmarking funding for the evaluation of communication efforts. Scientists and health researchers should develop proposals for government research spending and establish partnerships with community-based organizations that have the ability to implement education efforts at a grassroots level. These community-based organizations must have an active role in designing and implementing evaluation research to ensure the appropriateness of the programs and create a sense of ownership that will lead to continued efforts beyond government funding periods. Nontraditional partners (e.g., business, industry, the entertainment field, women’s groups, ethnic organizations, etc.) can support community-based efforts by providing leadership, resources, and additional funding.

Impact

Basic and applied risk-perception research will allow antitobacco groups to effectively target young girls prior to smoking initiation as well as current smokers who have thus far been unable or unwilling to define themselves as being at

risk for chronic health conditions. Continual monitoring of the impact of education efforts will inform researchers as to which messages are most effective and help them maximize the potency of messages to enhance prevention and cessation efforts.

***2. Develop and disseminate targeted messages.**

The social marketing agenda must be advanced using qualitative and quantitative methods and focusing on the psychological, sociocultural, and economic segmentation of women. On its own, recognition of the personal health risks of smoking does not often lead to cessation (10). Awareness of smoking risks needs to be combined with decreased benefits from and increased barriers to smoking and social and environmental support for not smoking. The key is to identify sets of attitudes and values in women who can be targeted for cessation, prevention, and advocacy messages for environmental change. Further research can explore how women experience smoking as an affordable pleasure and how tobacco products fit into women’s views of affordable routine pleasure.

Some prime areas for research include:

- *Identifying target groups.* Using lifestyle risk factors, sociodemographics, and health perceptions to group people has been considered a useful way to create target audiences for health messages (11, 12). Some researchers also suggest that understanding the diversity of smokers’ representations and explanations of their own smoking may play a useful role in developing effective messages (13). For particular groups of women, additional factors may play a role. For example, in a study of pregnant women, depression was found to be a significant predictor of smoking during pregnancy, even after controlling for other factors such as the desirability of the pregnancy and the presence of other smokers in the household (14). Thus, comprehensive models of smoking addiction are clearly needed that take into account various influences in women’s lives.
- *Understanding target groups.* Although some formative focus group research has helped elucidate the benefits of and barriers to smoking cessation for particular groups of women (15), few large-scale studies of the “hot buttons” that motivate women to take action against tobacco have been conducted. Reviews of tobacco company literature suggest that “systematic and extensive research is carried out by tobacco companies to ensure that cigarette packaging appeals to selected target groups, including young adults and women” (16). Antitobacco campaigns

need to be based on at least a similar level of systematic and extensive research. This research should provide a clear picture of the attitudes, values, and needs of target groups, including those at risk for smoking, current smokers, and women's health advocates.

- *Message and intervention evaluation.* Although message concepts are routinely tested among target audiences, large-scale message and intervention results are not as commonly catalogued and monitored. For researchers to hone new research quickly and effectively, a comprehensive feedback system is needed.

Disparities

Specific populations need to be primary target groups. By conducting research in different sociodemographic and cultural groups, disparities in tobacco use and cessation can be addressed through tailored messages to priority populations.

Partners

Academic institutions (including schools of public health, psychology, communication, and anthropology) should be tasked with performing and sharing research. Marketing firms can assist academic institutions by providing target-audience information from national communication databases. Marketing firms must also play a strategic role in developing and implementing social marketing plans to effect social change. Key partners include existing women's groups that are (or are not) already active in tobacco control. Women's groups should be active in both the planning and implementation of social marketing efforts.

Impact

Within 2 years, this work should make it possible to identify priorities, focus resources, and develop specific prevention and cessation strategies, including effective messages and channels for communication. Surveillance over 5 years will monitor and evaluate the effectiveness of these interventions among various segments of the population. If the work is done well, new messages could be delivered that counter the effects of tobacco industry messages (e.g., for women of low socioeconomic status, the goal would be to counter the notion of attractiveness or pleasurable aspects/ideology that surrounds tobacco use).

3. Understand positive positioning of tobacco.

Tobacco marketers have successfully positioned tobacco use as an affordable pleasure for women, and many women smokers report that tobacco use is a positive and meaningful part of their lives (13). Further research is needed to explore

this positive association, including how women experience smoking as an affordable pleasure and how tobacco products fit into women's views of affordable routine pleasures. This research can assist in understanding the benefits women associate with smoking, provide ways to counter those benefits, and identify complementary benefits associated with quitting smoking.

Disparities

Examining the positive perceptions of tobacco use among women in different socioeconomic and cultural groups will facilitate the development of tailored messages addressing each of these perceptions.

Partners

Marketing firms, women's groups, and businesses that market "safe pleasures" to women could partner with academic institutions. Marketing firms could assist by providing target-audience information from national communication databases, and businesses might provide additional insights into women's needs and desires. They might also participate by developing alternative low-cost pleasures for women who are trying to quit smoking. Women's groups could work with these organizations to design and implement pilot programs to counter the "affordable pleasure" aspect of tobacco marketing to women.

Impact

New messages could be delivered to counter the effects of tobacco industry messages that promote the attractive and pleasurable aspects of tobacco.

Translation

4. Use available evidence and gather additional evidence about health- and non-health-related messages that would interest women and engage them in tobacco cessation and antitobacco advocacy.

It is generally agreed that women do not understand the full impact of smoking on their health (17, 18). However, effective ways to communicate this message may vary depending on a woman's age, smoking status, and economic status and whether or not she is pregnant. Meta-analyses of female-specific interventions reveal how these factors are significantly related to how women approach cessation (19-21).

Available evidence to date and additional ongoing research (outlined above) will serve to segment priority audiences and provide insights into appropriate channels and tactics to reach

them. However, to ensure that progress is made in reducing tobacco initiation among women and increasing successful cessation efforts among women who smoke, translation and outreach efforts must be appropriately tracked and evaluated so that best practices can be identified and replicated.

Target audiences include:

- *Pregnant smokers.* One high-priority audience is pregnant smokers. The current best-practice intervention is in-office counseling by trained providers, which has been shown to double, and in some cases triple, successful quit attempts by pregnant women (22). Efforts should be made to increase use of this intervention among providers, increase knowledge among women that assistance is available, and support public policy efforts to ensure that health insurers pay for such counseling. In addition, tobacco use among high-priority populations, such as American Indians, must be evaluated. However, because of the complex physiological and psychological issues related to tobacco addiction during pregnancy (23), additional research on alternative approaches must be conducted. Such research should include the investigation of pharmacotherapy for pregnant smokers.
- *Young women.* Because the average age at tobacco use initiation among women has been declining (24), outreach to young women is another priority activity. Efforts should be made to increase knowledge of young women's receptiveness to tobacco industry messages, create effective counter-marketing messages, and develop channels and tactics through which such messages can be disseminated. Increased understanding of the role tobacco plays in young women's perceptions of themselves and in defining certain key attributes they crave (e.g., sexiness, adulthood) should also be examined, and mechanisms to define such attributes for young women in alternative ways should be developed.

Disparities

Research and evaluation must be designed to determine the effectiveness of different messages and approaches for different subgroups of women and the appropriateness of developing tailored messages and strategies to address disparities.

Partners

The media can be educated about appropriate messages and materials and urged to promote appropriate messages in reaching out to women on this issue. National health and advocacy groups such as the American Legacy Foundation, the American Cancer Society, and the American Lung

Association can gather information about current programs and provide data to the tobacco control community. Tobacco settlement funds can be used by state health departments to track results and promote appropriate interventions through state public health programs.

Impact

By positioning tobacco cessation as a primary factor in overall women's health and economic well-being and by showing that coordinated efforts can lead to declines in women's tobacco use, additional attention can be called to tobacco control as an issue of concern for all women. As a result, women's engagement with tobacco issues will increase.

5. Fund pilot or demonstration projects and related research to understand how to convert women's broad-based support for tobacco control policy and programs into active involvement in advocacy.

Systemic change requires involvement from a wide cross-section of society. Broad-based women's groups have an enormous impact on how society views and acts upon matters that are considered "women's issues" (25). The tobacco control community must do a better job of educating these groups about the toll tobacco use takes on women and of engaging them in tobacco control activities.

Research on competing issues and the overall agendas of various women's organizations will provide insights into how to approach these groups about adding tobacco control to their programs. By funding pilot or demonstration projects with certain organizations, it is possible to ascertain how to effectively engage women's leaders, create effective grassroots advocacy programs in conjunction with women's groups, and activate local leaders on the issue. It is especially important that interventions found to be effective in general populations be evaluated in women of specific ethnicities to ensure that no unintended consequences of messages or approaches occur or, if such consequences are found, that appropriate corrections are made for these audiences.

Research to advance this goal might include:

- *A review of other successful women-led social change movements.* The review would identify how these movements have succeeded in engaging and activating women.
- *An analysis of issues on which national organizations are focusing and the reasons for selecting these issues.* Target organizations might include the National Organization

for Women and the National Partnership for Women and Families.

- *An analysis of issues in which women are involved at the grassroots and “grasstops” levels.* This analysis would identify why these are considered priority issues and how seriously tobacco control is seen in comparison.
- *Evaluation of previous pilot programs directed toward women.* This will determine which programs might be effectively expanded to reach new audiences.
- *Development and evaluation of pilot projects.* This would enable the tobacco control community to ascertain how to effectively engage women leaders, create effective grassroots advocacy programs in conjunction with women-led community groups, and activate local leaders on the issue.

Based upon the results of this research, appropriate messages and materials can be developed for use in reaching out to organizations that have not been involved in tobacco control to date.

Disparities

By reaching out to organizations representing populations that are disproportionately affected by tobacco but have not heretofore been involved in antitobacco advocacy, policies/ programs can be launched to evaluate the effectiveness of various interventions with their target populations, eventually improving these populations' health.

Partners

National health and advocacy groups, such as the American Legacy Foundation, the American Cancer Society, and the American Lung Association, can conduct planning research and develop templates for pilot programs. To reach new audiences, pilot programs can be undertaken by antitobacco advocacy organizations in conjunction with nontraditional partners such as labor organizations, faith-based organizations, businesses, women's business interests, women's advocacy organizations, and social service organizations. These organizations can be galvanized to use their existing communication channels to carry tobacco prevention and cessation messages to a broader audience of women.

Impact

By positioning tobacco cessation as a primary factor in overall women's health and economic well-being and by showing that coordinated efforts can lead to declines in women's tobacco use, women's engagement with tobacco issues will increase,

and the political base of support for tobacco control will expand.

Application

*6. Maximize dissemination of tobacco control research findings using state-of-the-art communication strategies.

The tobacco control research community is relatively small and tightly knit, but the universe of practitioners and tobacco users who will benefit from research findings and best-practice interventions is much larger. To be effective, research findings must be efficiently and quickly disseminated from the tobacco control community to the broader health care and media communities and, eventually, to consumers. Increasing communication between researchers and practitioners will help refine interventions by ensuring that research designs are informed by practitioners' constraints and that researchers are investigating issues that reflect the target population. Increased collaboration will aid in the development of the most cost-effective and efficient practices possible. Because research findings can at times be contradictory, increasing communication to assist practitioners in understanding and explaining contradictory information to their patients is also important.

Implementing this recommendation will involve:

- *Creating a clearinghouse.* An organization or system should be created that is responsible for identifying individual and/or policy-relevant tobacco control research findings (from within and outside the academic community) and for using state-of-the-art communication strategies to maximize dissemination to relevant audiences. This might include polling and marketing research, journal articles, research abstracts, and examples of communication materials used to support best-practice interventions.
- *Reaching out to health providers.* The tobacco control community should reach out to health provider organizations to incorporate training on best-practice cessation interventions at national, state, and local meetings. These opportunities should be made available to nurses, nurse practitioners, social workers, obstetrician/gynecologists, internists, dentists, and all other medical specialists who may serve as primary care providers. By using effective provider-centered communication strategies (26) and making it easy to update providers' skills in counseling and aiding patients to successfully quit smoking, the importance of the issue

will be elevated among these key audiences, and they will be encouraged to keep informed of the latest advances.

- *Effectively using the media.* Media briefings should be designed to both educate and inform the media so that they understand the context in which new findings are released. The briefings would not only explain the new research findings, but would also cover the expected impact or use of the findings and an overview of other research that the new findings support or refute.

Disparities

To establish feedback loops with priority populations, outreach is needed to medical professional organizations that represent minority practitioners, and relationships must be created with the media and other communication channels that serve priority populations.

Partners

Potential partners include the tobacco control research community to actively present and share information with providers and other target audiences. Mass-media outlets would be engaged to provide liaison to and feedback from consumers. Funders must be engaged to underwrite the necessary infrastructure, and the advocacy community must be empowered and encouraged to share nonproprietary survey, focus group, and opinion poll data.

Impact

Key information will be disseminated more rapidly and completely to the general public and among the decision-making elite. Partnerships will open communication channels from consumers back to researchers to help inform and shape future research agendas and to refine and improve current best-practice interventions.

References

1. Roos E, Lahelma E, Virtanen M, Praetiaelae R, Pietinen P. Gender, socioeconomic status, and family status as determinants of food behaviour. *Social Science and Medicine*. 1998;46:1519-29.
2. Cutting TM, Fisher JO, Grimm-Thomas K, Birch LL. Like mother, like daughter: Familial patterns of overweight are mediated by mothers' dietary disinhibition. *American Journal of Clinical Nutrition*. 1999;69:608-13.
3. Wild RA, Taylor EL, Knehans A, Cleaver V. Matriarchal model for cardiovascular prevention. *Obstetrical & Gynecological Survey*. 1994;49:147-52.
4. Rosenstock IM, Strecher VJ, Becker MH. Social learning theory and the health belief model. *Health Education Quarterly*. 1988;15:175-83.
5. Kelley K, Bond R, Abraham C. Effective approaches to persuading pregnant women to quit smoking: A meta-analysis of intervention evaluation studies. *British Journal of Health Psychology*. 2001;6:207-28.
6. Dino GA, Horn KA, Goldcamp J, Maniar SD, Fernandes A, Massey CJ. Statewide demonstration of Not On Tobacco: A gender-sensitive teen smoking cessation program. *Journal of School Nursing*. 2001;17:90-7.
7. YouthStyles 2002 [communications database on youth behavior]. Washington, DC: Porter Novelli.
8. Messina C, Kabat G, Lane D. Perceptions of risk factors for breast cancer and attitudes toward mammography among women who are current, ex- and non-smokers. *Women & Health*. 2002;36:65-82.
9. Markowitz LJ. Smokers' perceived self-exemption from health risks. *Psi Chi Journal of Undergraduate Research*. 2000;5:119-24.
10. Haug N, Stitzer M, Svikis D. Smoking during pregnancy and intention to quit: A profile of methadone-maintained women. *Nicotine & Tobacco Research*. 2001;3:333-9.
11. Schuit A, van Loon A, Tijhuis M, Ocke M. Clustering lifestyle risk factors in a general adult population. *Preventive Medicine*. 2002;35:219-24.
12. Maibach E, Maxfield A, Ladin K, Slater M. Translating health psychology into effective health communication: The American Healthstyles Audience Segmentation Project. *Journal of Health Psychology*. 1996;1:261-77.
13. Collins P, Maguire M, O'Dell L. Smokers' representations of their own smoking: A Q-methodological study. *Journal of Health Psychology*. 2002;7:641-52.
14. Zhu S, Valbo A. Depression and smoking during pregnancy. *Addictive Behaviors*. 2002;27:649-58.
15. Hotham E, Atkinson E, Gilbert A. Focus groups with pregnant smokers: Barriers to cessation, attitudes to nicotine patch use and perceptions of cessation counseling by care providers. *Drug & Alcohol Review*. 2002;21:163-8.

16. Moran S, Glazier G, Armstrong K. Women smokers' perceptions of smoking-related health risks. *Journal of Women's Health*. 2003;12:363-71.
17. Wakefield M, Morley C, Horan J, Cummings K. The cigarette pack as image: New evidence from tobacco industry documents. *Tobacco Control*. 2002;11:73-80.
18. Ayanian JZ, Cleary PD. Perceived risks of heart disease and cancer among cigarette smokers. *Journal of the American Medical Association*. 1999;281:1019-21.
19. Lu Y, Tong S, Oldenburg B. Determinants of smoking and cessation during and after pregnancy. *Health Promotion International*. 2001;16:355-65.
20. Krummel DA, Koffman DM, Bronner Y, et al. Cardiovascular health interventions in women: What works? *Journal of Women's Health & Gender-Based Medicine*. 2001;10:117-36.
21. King TK, Borrelli B, Black C, Pinto BM, Marcus BH. Minority women and tobacco: Implications for smoking cessation interventions. *Annals of Behavioral Medicine*. 1997;19:301-13.
22. Melvin CL, Dolan-Mullen P, Windsor RA, Whiteside HP, Goldenberg RL. Recommended cessation counseling for pregnant women who smoke: A review of the evidence. *Tobacco Control*. 2000;9:III80-4.
23. Affonso DD, De AK, Korenbrot CC, Mayberry LJ. Cognitive adaptation: A women's health perspective for reducing stress during childbearing. *Journal of Women's Health & Gender-Based Medicine*. 1999;8:1285-94.
24. U.S. Department of Health and Human Services. *National Survey on Drug Use & Health* (formerly called the National Household Survey on Drug Abuse). U.S. Department of Health and Human Services, Substance Abuse and Mental Services Administration: Rockville, MD; 2000.
25. Disney JL, Gelb J. Feminist organizational "success": The state of U.S. women's movement organizations in the 1990s. *Women & Politics*. 2000;21:39-76.
26. Grimshaw JM, Shirran L, Thomas R, et al. Changing provider behavior: An overview of systematic reviews of interventions. *Medical Care*. 2001;39:II2-45.