

# ***Excellence in Prevention*** – descriptions of the prevention programs and strategies with the greatest evidence of success

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## **Name of Program/Strategy: Family Matters**

### **Report Contents**

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### **1. Overview and description**

Family Matters is a family-directed program to prevent adolescents 12 to 14 years of age from using tobacco and alcohol. The intervention is designed to influence population-level prevalence and can be implemented with large numbers of geographically dispersed families. The program encourages communication among family members and focuses on general family characteristics (e.g., supervision and communication skills) and substance-specific characteristics (e.g., family rules for tobacco and alcohol use and media/peer influences). The program involves successive mailings of four booklets to families and telephone discussions between the parent and health educators. Two weeks after family members read a booklet and carry out activities intended to reinforce its content, a health educator contacts a parent by telephone. A new booklet is mailed when the health educator determines that the prior booklet has been completed.

### **2. Implementation considerations (if available)**

The program can be implemented by many different types of organizations and people, such as health promotion practitioners in health departments, school health educators and parent-teacher groups, volunteers in community-based programs, and national nonprofit organizations.

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### 3. Descriptive Information

<b>Areas of Interest</b>	Substance abuse prevention
<b>Outcomes</b>	1: Prevalence of adolescent cigarette use 2: Prevalence of adolescent alcohol use 3: Onset of adolescent cigarette use
<b>Outcome Categories</b>	Alcohol Tobacco
<b>Ages</b>	6-12 (Childhood) 13-17 (Adolescent)
<b>Genders</b>	Male Female
<b>Races/Ethnicities</b>	Black or African American Hispanic or Latino White
<b>Settings</b>	Home
<b>Geographic Locations</b>	Urban Suburban Rural and/or frontier Tribal
<b>Implementation History</b>	Family Matters was initially implemented in 1996-1997 with 658 families across the United States and is currently offered by organizations nationwide. To date, on-site training has been provided for this intervention in at least 11 States (Alabama, California, Colorado, Louisiana, Maryland, Nevada, New Mexico, Oklahoma, Rhode Island, Texas, and Washington).
<b>NIH Funding/CER Studies</b>	Partially/fully funded by National Institutes of Health: Yes Evaluated in comparative effectiveness research studies: No
<b>Adaptations</b>	Family Matters was developed through a series of pilot studies representing the general population. Spanish- language versions of the program were in the process of being piloted as of October 2006.
<b>Adverse Effects</b>	No adverse effects, concerns, or unintended consequences were identified by the applicant.
<b>IOM Prevention Categories</b>	Universal

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## **4. Outcomes**

### **Outcome 1: Prevalence of adolescent cigarette use**

<b>Description of Measures</b>	Smoking status was determined at baseline and again at 3- and 12-month follow-ups by asking, "How much have you ever smoked cigarettes in your life?" At each time point, adolescents were considered "nonusers" if they reported they had never used cigarettes or "users" if they reported they had used cigarettes (even a single puff).
<b>Key Findings</b>	The intervention reduced prevalence of self-reported smoking among both users and nonusers, after adjusting for demographic variables and use rates at the start of the program. A very small effect size was found 3 months (Cohen's $d = 0.19$ ) and 12 months (Cohen's $d = 0.17$ ) following the intervention.
<b>Studies Measuring Outcome</b>	Study 2
<b>Study Designs</b>	Experimental
<b>Quality of Research Rating</b>	3.2 (0.0-4.0 scale)

### **Outcome 2: Prevalence of adolescent alcohol use**

<b>Description of Measures</b>	Drinking status was determined at baseline and again at 3- and 12-month follow-ups by asking, "How much alcohol have you ever had in your life?" At each time point, adolescents were considered "nonusers" if they reported they had never used alcohol or "users" if they reported they had used alcohol (even a sip).
<b>Key Findings</b>	The intervention reduced prevalence of self-reported alcohol use among both users and nonusers, after adjusting for demographic variables and use rates at the start of the program. A small effect size (Cohen's $d = 0.32$ ) was found at 3 months following the intervention; this was reduced to a very small effect size (Cohen's $d = 0.12$ ) at 12 months.
<b>Studies Measuring Outcome</b>	Study 2
<b>Study Designs</b>	Experimental
<b>Quality of Research Rating</b>	3.2 (0.0-4.0 scale)

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## **Outcome 3: Onset of adolescent cigarette use**

<b>Description of Measures</b>	Smoking status was determined at baseline and again at 3- and 12-month follow-ups by asking, "How much have you ever smoked cigarettes in your life?" At each time point, adolescents were considered "nonusers" if they reported they had never used cigarettes or "users" if they reported they had used cigarettes (even a single puff).
<b>Key Findings</b>	Data suggest that the intervention reduced smoking onset among adolescents who reported being nonusers at the start of the program. At 12-month follow-up, 16.4% fewer program participants had initiated smoking compared with a control group of adolescents who did not receive the program. Results appeared significantly stronger among non-Hispanic White adolescents than among adolescents of other ethnicities. The effect size was small (Cohen's $d = 0.25$ ) for non-Hispanic Whites and very small (Cohen's $d = 0.15$ ) for all adolescents.
<b>Studies Measuring Outcome</b>	Study 1
<b>Study Designs</b>	Experimental
<b>Quality of Research Rating</b>	3.2 (0.0-4.0 scale)

## **5. Cost effectiveness report** (Washington State Institute of Public Policy – if available)

<p><b>Benefits minus cost, per participant</b></p> <p><b>Source:</b> Benefits and Costs of Prevention and Early Intervention Programs for Youth – 2004 update. Washington State Institute for Public Policy, <a href="http://www.wsipp.wa.gov/pub.asp?docid=04-07-3901">http://www.wsipp.wa.gov/pub.asp?docid=04-07-3901</a>.</p> <p>Costs and Benefits of Prevention and Early Intervention Programs for At-Risk Youth: Interim Report – 2003. Washington State Institute for Public Policy, <a href="http://www.wsipp.wa.gov/pub.asp?docid=03-12-3901">http://www.wsipp.wa.gov/pub.asp?docid=03-12-3901</a>.</p>	<p>According to the WSIPP study, this program strategy returns</p> <p><b><u>\$1,092 per individual</u></b></p> <p>in savings that would otherwise be associated with education, substance abuse, teen pregnancy, child abuse and neglect, or criminal justice system.</p>
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**6. Washington State results** (from Performance Based Prevention System (PBPS) – if available)

**7. Where is this program/strategy being used (if available)?**

Washington Counties	Oregon Counties
Skagit	

## **8. Study Populations**

The studies reviewed for this intervention included the following populations, as reported by the study authors.

Study	Age	Gender	Race/Ethnicity
<b>Study 1</b>	6-12 (Childhood) 13-17 (Adolescent)	51% Female 49% Male	73.4% White 12.5% Black or African American 9.2% Hispanic or Latino
<b>Study 2</b>	6-12 (Childhood) 13-17 (Adolescent)	50.7% Female 49.3% Male	78% White 9.9% Black or African American 7.6% Hispanic or Latino

## **9. Quality of Research**

The documents below were reviewed for Quality of Research. Other materials may be available. For more information, contact the developer(s).

### **Study 1**

Bauman, K. E., Foshee, V. A., Ennett, S. T., Pemberton, M., Hicks, K. A., King, T. S., et al. (2001). The influence of a family program on adolescent tobacco and alcohol use. *American Journal of Public Health*, 91(4), 604-610.

### **Study 2**

Bauman, K. E., Ennett, S. T., Foshee, V. A., Pemberton, M., King, T. S., & Koch, G. G. (2002). Influence of a family program on adolescent smoking and drinking prevalence. *Prevention Science*, 3(1), 35-42.

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## **Supplementary Materials**

Bauman, K. E., Ennett, S. T., Foshee, V. A., Pemberton, M., & Hicks, K. (2001). Correlates of participation in a family-directed tobacco and alcohol prevention program for adolescents. *Health Education & Behavior*, 28(4), 440-461.

Bauman, K. E., Ennett, S. T., Foshee, V. A., Pemberton, M., King, T. S., & Koch, G. G. (2000). Influence of a family-directed program on adolescent cigarette and alcohol cessation. *Prevention Science*, 1(4), 227-237.

Bauman, K. E., Foshee, V. A., Ennett, S. T., Hicks, K., & Pemberton, M. (2001). Family Matters: A family-directed program designed to prevent adolescent tobacco and alcohol use. *Health Promotion Practice*, 2(1), 81-96.

Ennett, S. T., Bauman, K. E., Foshee, V. A., Pemberton, M., & Hicks, K. A. (2001). Parent-child communication about adolescent tobacco and alcohol use: What do parents say and does it affect youth behavior? *Journal of Marriage and Family*, 63, 48-62.

Ennett, S. T., Bauman, K. E., Pemberton, M., Foshee, V. A., Chuang, Y.-C., King, T. S., et al. (2001). Mediation in a family-directed program for prevention of adolescent tobacco and alcohol use. *Preventive Medicine*, 33, 333-346.

## **Quality of Research Ratings by Criteria (0.0-4.0 scale)**

External reviewers independently evaluate the Quality of Research for an intervention's reported results using six criteria:

1. Reliability of measures
2. Validity of measures
3. Intervention fidelity
4. Missing data and attrition
5. Potential confounding variables
6. Appropriateness of analysis

For more information about these criteria and the meaning of the ratings, see Quality of Research.

Outcome	Reliability of Measures	Validity of Measures	Fidelity	Missing Data/Attrition	Confounding Variables	Data Analysis	Overall Rating
<b>1: Prevalence of adolescent cigarette use</b>	2.3	2.5	3.5	3.5	3.8	3.8	<b>3.2</b>
<b>2: Prevalence of adolescent alcohol use</b>	2.3	2.5	3.5	3.5	3.8	3.8	<b>3.2</b>

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<b>3: Onset of adolescent cigarette use</b>	2.3	2.5	3.5	3.5	3.8	3.5	<b>3.2</b>
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## **Study Strengths**

The outcome measures used in this study are standardized and pilot-tested for understanding by adolescent respondents; they are comparable to items widely accepted in the field and used in national surveys. The items used have face validity, and concurrent validity is supported by the fact that bi-variate associations with relevant variables were in the expected direction, with many reaching statistical significance. There is strong evidence that the intervention was implemented with fidelity: Health educators received 2 full days of training, were monitored during practice, and continued training throughout the study, and intervention procedures followed a standardized written protocol. The authors used a randomized experimental control group design and appropriate controls on confounding variables (e.g., research staff was blinded to intervention condition, adolescents had no contact with intervention staff). Participation and follow-up rates were high for this type of intervention, with complete follow-up data being collected on more than 80% of the sample. Sufficient measures were taken to ensure that there were very few missing data, which were modeled using generalized estimating equations (GEE). Researchers adjusted for baseline variables potentially related to outcomes.

## **Study Weaknesses**

It is not clear whether interviewers were directly monitored during phone calls with the adolescents. Only one survey question was used to determine each outcome with no cross-referencing or corroboration to verify the self-report data. Power may not have been adequate to detect the difference in treatment effect at the 3- versus 12-month follow-up. Sample size appears adequate for tests of prevalence outcomes but may have been smaller than necessary to adequately test for effects of the intervention on onset and for baseline variable- by-intervention interactions.

## **10. Readiness for Dissemination**

The documents below were reviewed for Readiness for Dissemination. Other materials may be available. For more information, contact the developer(s).

### **Dissemination Materials**

Bauman, K., Foshee, V., & Ennett, S. (1996). Book 1: Why families matter [Program booklet]. Chapel Hill: University of North Carolina at Chapel Hill.

Bauman, K., Foshee, V., & Ennett, S. (1996). Book 2: Helping families matter to teens [Program booklet]. Chapel Hill: University of North Carolina at Chapel Hill.

Bauman, K., Foshee, V., & Ennett, S. (1996). Book 3: Alcohol and tobacco rules are family matters [Program booklet]. Chapel Hill: University of North Carolina at Chapel Hill.

Bauman, K., Foshee, V., & Ennett, S. (1996). Book 4: Non-family influences that matter [Program booklet]. Chapel Hill: University of North Carolina at Chapel Hill.

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Bauman, K., Foshee, V., Ennett, S., & Hicks, K. (2005). Health educator guidebook: Local implementation version. Chapel Hill: University of North Carolina at Chapel Hill.

Family Matters Program Overview and Training Description

Family Matters Web site, <http://www2.sph.unc.edu/familymatters/index.htm>

## **Readiness for Dissemination Ratings by Criteria (0.0-4.0 scale)**

External reviewers independently evaluate the intervention's Readiness for Dissemination using three criteria:

1. Availability of implementation materials
2. Availability of training and support resources
3. Availability of quality assurance procedures

For more information about these criteria and the meaning of the ratings, see Readiness for Dissemination.

<b>Implementation Materials</b>	<b>Training and Support Resources</b>	<b>Quality Assurance Procedures</b>	<b>Overall Rating</b>
3.3	3.0	3.5	<b>3.3</b>

## **Dissemination Strengths**

Implementation materials offer comprehensive guidance on how to implement the program, access to the program Web site and original research, and helpful scripts and protocols on how to deal with difficult participant responses. The types of providers and participants targeted by this intervention are clearly defined. Training materials offer step-by-step directions and anticipate a variety of scenarios. Protocols and evaluation instruments with established criteria are provided free on the program Web site to support quality assurance.

## **Dissemination Weaknesses**

No information was provided to assist implementers in selecting communities as target participants. Materials would benefit from an implementation matrix or other organizing tool so that users could distinguish background and introductory documents from actual implementation materials. No sample training materials or implementation monitoring checklist was provided for review.

## **11. Costs**

The information below was provided by the developer and may have changed since the time of review. For detailed information on implementation costs (e.g., staffing, space, equipment, materials shipping and handling), contact the developer.

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<b>Item Description</b>	<b>Cost</b>	<b>Required by Program Developer</b>
Health Educator Guidebook	Free	Yes
Booklets	Free	Yes
Trinkets	Free	Yes
On-site training	\$3,000-\$5,000 depending on location	No
Consultation	Free	No
Quality assurance tools	Free	Yes

### **Additional Information**

The cost of implementing Family Matters in a 2001 national evaluation was about \$140 per eligible family.

## **12. Contacts**

### **For information on implementation:**

Katherine A. Hicks, M.S.  
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### **For information on research:**

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**Learn More by Visiting:** <http://familymatters.sph.unc.edu/index.htm>