

# Prescription for Health: Promoting Healthy Behaviors in Primary Care Research Networks

This evaluation was of a program that sought to incorporate effective health behavior counseling into routine primary care. The program:

- Made grants to Practice Based Research Networks (PBRNs) supported by the Agency for Healthcare Research and Quality (AHRQ). Practices belonging to these PBRNs then chose to participate in the program.
- Integrated models and tools for health behavior counseling in primary care office visits.

## The evaluation found that:

- Health behavior counseling can take place in a primary care practice.
- Patient preference plays an important role in the success of interventions to promote health behavior counseling.
- PBRNs can support changes and improvements in primary care practices.
- There is a need to develop research designs that will support both conventional research and quality improvement.

The evaluation also found that the program's structure, in which the evaluation team worked alongside of the program's management team, supported the identification and dissemination of lessons learned among the program's participants.

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## THE PROGRAM

### **Purpose or Objective of the Program**

*Prescription for Health: Promoting Healthy Behaviors in Primary Care Research Networks* tested new ways of improving health behavior counseling in routine primary care. The goal of the program was to implement new ways of decreasing the prevalence of four unhealthy behaviors: poor diet, physical inactivity, smoking and risky drinking, and to test the effectiveness of these innovations.

The program had two rounds of funding.

- The goal of the first round of funding was to develop and test new models and tools for integrating behavior change interventions into primary care practices. In this round, participating practices worked on innovations that would address at least two of the four unhealthy behaviors. The first round of funding lasted 16 months.
- In the second round of funding, the participating primary care practices attempted to integrate the practices changes permanently. Practices implemented innovations that would address all four risky behaviors, involve use of the “5 As” (ask, advise, agree, assist and arrange) behavioral counseling model, incorporate all the elements of the Chronic Care Model, and collect common data elements around behavioral outcomes and cost.<sup>1</sup> This round of funding lasted two years.

### **National Program Office (NPO)**

University of Colorado Department of Family Medicine

12474 E. 19<sup>th</sup> Avenue, Building 402

Aurora, Colorado

(303) 724-9772

[www.prescriptionforhealth.org](http://www.prescriptionforhealth.org)

#### **Key contacts:**

Larry Green, Director [Larry.Green@uchsc.edu](mailto:Larry.Green@uchsc.edu)

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<sup>1</sup> The six components of the Chronic Care Model are: self-management, decision support, clinical information system, organization of health care, system design, and community. For more information on the Chronic Care Model, see <http://www.rwjf.org/pr/product.jsp?id=18575>.

Maribel Cifuentes, Deputy Director [Maribel.cifuentes@uchsc.edu](mailto:Maribel.cifuentes@uchsc.edu)

## Robert Wood Johnson Foundation Management

Rosemary Gibson (originally Susan B. Hassmiller), Program Officer

Laura Leviton, Evaluation Officer

## Program Elements

In *Prescription for Health*, RWJF made grants to Practice Based Research Networks (PBRNs), research networks of primary care practices supported by the Agency for Healthcare Research and Quality (AHRQ).

PBRNs interested in participating in *Prescription for Health* submitted research proposals to the National Program Office. Each PBRN's study had its own design and tested its own hypothesis.

A National Advisory Committee selected the winning proposals. The committee ensured that proposals came from recognized PBRNs, and chose the strongest proposals.

The NAC selected 22 PBRNs to participate. Each PBRN then recruited primary care practices within its own network to test the interventions.

- 17 PBRNs received funding in round 1; 120 primary care practices participated
- 10 PBRNs received funding in round 2; five of these had participated in round 1 and five were new to the program.

Each PBRN used different criteria to select the primary care practices that participated.

The participating primary care practices included family medicine, internal medicine, pediatric and nursing practices, in both urban and rural settings and serving an ethnically diverse population. Practices included solo and group practices, Federally Qualified Health Centers and community nursing centers.

## Key Dates

Program dates:	
Program design:	Began November, 2001
Program, Round 1:	July, 2003 – October 2004
Program, Round 2:	July, 2005 – June 2007

Evaluation dates:	
Evaluation design:	Began November 2001
Planning grant:	2002 – 2003
Evaluation:	2003 – July, 2009

### QI Strategy

- Learning collaboratives (among the principal investigators of the PBRNs)

### Clinical Conditions Targeted

- Primary care, specifically, assistance in lifestyle changes around diet, exercise, smoking and drinking.

### Level of Intervention

- Organization level (primary care practice)
- Provider level (primary care clinician)

- Patient level

## THE EVALUATION

### Evaluation Team

University of Medicine and Dentistry of New Jersey – Robert Wood Johnson Medical School,  
Department of Family Medicine

- Benjamin F. Crabtree, Ph.D., principal investigator for Round 1
- Deborah Cohen, Ph.D., principal investigator for Round 2, **key contact**
- Bijal A. Balasubramanian M.B.B.S., Ph.D.
- Elizabeth C. Clark, M.D., M.P.H.
- Rebecca S. Etz Ph.D.
- Nicole F. Isaacson, Ph.D., M.S.S.
- Alfred F. Tallia, M.D., M.P.H.
- Denise M. Young, M.D.

### Purpose of the Evaluation

**The evaluation of *Prescription for Health* sought to draw together the lessons emerging across the funded projects. Specifically, the evaluation team sought to:**

- Develop a new evaluation method—the online INTERACTIVE diaries—which used interactive diary entries by program staff to evaluate project implementation and provide real-time communication between evaluation staff members and those implementing a program.
- Support learning across all the levels of the program (i.e., the PBRNs, the NPO, the practices, the patients, and the evaluation team).
- Learn whether interventions – which perhaps had been developed in resource-rich practice environments dominated by a strong research mission – could be translated for front-line practices in a way that was both practical and effective.
- Determine which kinds of medical care practices could successfully implement the innovations.
- Provide useful advice to PBRN investigators on the conduct of the research.

- Analyze the insights and patterns that emerged from looking across projects, practices and PBRNs.

### **Level of the Evaluation**

- Program level
- Organization level
- Provider level
- Patient level

### **Design of the Evaluation**

*Prescription for Health* had both a formative and summative evaluation. The evaluation and the program were designed concurrently, beginning in November, 2001. A program development team consisting of RWJF program staff, members of the National Advisory Committee, staff from the NPO and the Evaluation Team collaborated to identify the project goals and the evaluation goals.

## Methodology

### Use of Data:

	Used to assess impact at the:		
	Organization level	Provider or staff level	Patient level
<b>Survey</b>			
In-person	X	X	
By phone	X	X	
Internet	X	X	
Mail	X	X	
<b>Site visit</b>	X	X	
<b>Interview</b>	X	X	
PBRN Research team	X		
Provider		X	
Patient			
Key Informant	X	X	
<b>Clinical data/chart review</b>			
<b>Clinical data/other source</b>			
<b>Participation data</b>	X	X	
<b>Other process data</b>	X	X	

\*These data elements were collected by staff of the participating hospitals as part of their data reporting for the program.

**The information gathered as part of the evaluation was fed back to the program's participants for their use in their work to improve health behavior counseling.**

- The evaluation team and the PBRNs could look at the data quickly.
- The investigators (in the PBRNs) used these data as they implemented and evaluated their interventions.
- The program management analyzed and shared the data among PBRNs and practices, to support collaboration and learning.

**The sources of data were:**

- On-line diary entries. Researchers from the PBRNs wrote these diary entries about each practice at least twice per month. The researchers made the entries on the AHRQ-sponsored secure PBRN extranet. 57 researchers made 567 diary entries in phase 1 of the program.
- The applications submitted by PBRNs for their *Prescription for Health* grants.
- Notes from site visits. The evaluation team and the NPO conducted two-day site visits to each PBRN-based project and also to at least two participating practices.
- Interview results:
  - The evaluation team conducted interviews with grantees at program meetings and well as interviews with key informants during the various site visits.
  - Also, as part of its evaluation of the program as a whole, the evaluation team conducted in-depth interviews with five key people involved in developing both the program and the evaluation.
- Survey results.
  - PBRN research teams completed two web-based surveys in collaboration with participating practices:
    - The Practice Information Form, completed at baseline and 12 months post implementation of the intervention
    - The Practice Staff Questionnaire, completed at baseline.

The evaluation team developed these surveys during the evaluation planning grant. In Round 2, the Practice Assessment Template replaced the Practice Staff Questionnaire.

- In addition, each PBRN completed a web-based survey at the start of the project.

In Round 2, the PBRNs and practices surveyed patients to assess whether patient behaviors had changed. The survey instrument contained 22 questions, from the Behavioral Risk Factor Surveillance System (smoking and alcohol), Society for Research for Nicotine and Tobacco (smoking), the Behavior Change Consortium (smoking), Starting the Conversation (eating patterns), and International Physical Activity Questionnaire (physical activity). Note that this and other patient-level data was not collected by the evaluation team, although the evaluation team had access to the data

## Analytic Approach

**In Round 1 of the program, the evaluation team used two analytic approaches:**

- **Real-time process analysis:** In the first year of round 1, the evaluation team met each week to review and discuss the diary entries made by PBRN researchers. The evaluation team used this review, and the contextual information provided by the interviews, site visits and other data sources, to write, update and discuss case studies of each PBRN-based project.
- **Comprehensive analysis:** Beginning in April, 2004, the evaluation team began to look more broadly at each PBRN-based project, to identify key themes within the projects and also across the whole program. The evaluation team says it used “an immersion-crystallization”<sup>2</sup> approach. Evaluation team members examined all available data, prepared initial summary reports, reviewed the reports to identify common patterns, and worked to achieve consensus on the most important lessons learned in the program about implementing innovations on health behavior counseling in primary care.

The evaluation team used a similar approach in round 2: first carrying out a real-time comparison of what was taking place in each PBRN, and then using an iterative group process to analyze the interventions and identify key themes and lessons.

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<sup>2</sup> Cohen, D.J., Tallia, A., Crabtree, B.F., Young, D. Implementing Health Behavior Change In Primary Care: Lessons from Prescription for Health. *Annals of Family Medicine*. 2005 Jul-Aug;3 Suppl 2:S14.

The evaluation team used ATLAS.ti version 5.2 to capture the data and help in its analysis.

### **Key Measures and/or Constructs**

As described above, the evaluation team used qualitative data from the diary entries for the core of its assessment, augmented by data from interviews, site visits and surveys.

**The team also used demographic and organizational data from the practice to clarify:**

- Staffing patterns
- The financial health of the practice
- The practice's patient panel and payer mix
- The baseline status of health behavior counseling in the practice.

And the team also assessed how each practice worked as an organization, noting how decisions are made, how members of the practice communicate, and the nature of teamwork in the practice.

## Findings

### Findings that relate to the program

The evaluation found that the structure of *Prescription for Health*, in which the evaluation team worked in real-time with PBRNs and the NPO, supported the identification and dissemination of the important lessons learned by the program's participants about how to do more health behavior counseling. These lessons related to all levels of the program: the PBRNs, the practices and the patients.

### Findings that relate to PBRNs

Round 1 of Prescription for Health demonstrated the feasibility of working with PBRNs to change and improve primary care practices. Working with the PBRNs also highlighted the dual and often incompatible goals of research and quality improvement. Research requires Institutional Review Board review, adequate enrollment and human subjects' consent, and these all can inhibit the quality improvement process in practices. *Prescription for Health* showed the need for research designs that facilitate research without impeding practice improvement.

By working with all the PBRN-sponsored projects, the evaluation team gained a better understanding of the kinds of issues that arise in research projects based in primary care practices. Round 1 showed that few investigative teams used a standard model or approach (e.g., Plan-Do-Study-Act) to implement their innovations. In Round 2, the evaluation team looked deeper into how practices translate evidenced-based research into practice. The team identified the need to modify research design and reporting standards so front-line practices understood and reported the adaptations they made as they tried to get the innovations to work in their organizations.

### Findings that relate to practices

***Prescription for Health* established that health behavior counseling can be done in primary care practice. The evaluation team learned that:**

- Efforts to integrate health behavior counseling do not need to focus on what happens in the examination room. With practice redesign and training, all practice staff can engage in health behavior counseling.

- Primary care practices can leverage brief counseling efforts by linking patients with services in the community. To do this, practices need to identify patients with health risks, make referrals, and have knowledge of community resources.
- The Chronic Care model provides a useful framework. Practices that exhibited more components of the Chronic Care model were more likely to recommend preventive care services to their patients.

### **Findings that relate to patients**

**Findings from the individual projects in *Prescription for Health* also provided some information. These individual projects showed that patient preference played an important role in the success of interventions to promote health behavior counseling:**

- Patients strongly preferred counseling that involved personal contact.
- Patients may not be willing to bear the cost of counseling services. Health behavior counseling is unlikely to become widespread until insurance programs or other payment systems begin to cover these costs.

## Limitations

1. The nature of the evaluation might be considered a limitation, as the observations were certainly affected by interactions between the projects and the evaluators. In this program, however, the evaluation team and RWJF concluded that the evaluation team's integration with the program, and especially the concurrent sharing of data across all parts of the program that resulted, was a strength rather than a limitation. The data and insights would simply not have been accessible otherwise (other projects have shown how difficult these data and observations are to obtain) There is an extensive body of work on the use of diaries for evaluation. As one of several different data sources, it helps to understand what happened.
2. Because practices were located across the country, the evaluation team was unable to observe practices directly as they implemented interventions. Instead, the team relied on PBRN researchers to observe and report what happened. The evaluation team found the on-line diaries useful, but also found variation in how often grantees posted in their diaries and how detailed these reports were.

### **The evaluation team addressed this variation by:**

- Making diary postings a condition of receiving the grant awards.
- Showing grantees the value of this data source.
- Conducting site visits and interviews to get additional information about how practices were implementing their changes.

## Tools and Other Resources Developed in the Evaluation Publications

- Balasubramanian, BA., Cohen, DJ., Clark, EC., Isaacson, NF., Hung, DY., Dickinson, LM., Fernald, DH., Green, LA., Crabtree, BF. Practice level approaches for behavioral counseling and patient Health Behaviors. *American Journal of Preventive Medicine*. 35(5S), S407-413. 2008.
- Cohen, DJ., Crabtree, BF., Etz, RS., Balasubramanian, BA., Donahue, K., Leviton, LC., Clark, EC., Isaacson, NF., Stange, KC., Green, LW. Fidelity vs. Flexibility: Translating evidence-Based research into Practice. *American Journal of Preventive Medicine*. 35(5S), S381-389. 2008.
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- Fernald, DH., Forshaug, D., Dickinson, LM., Balasubramanian, BA., Doodoo, M., Holtrop, JS., Hung, DY., Glasgow, RE., Niebauer, L., Green, L. Common Measures, Better Outcomes (COMBO): A field Test of Brief Health Behavior Measures in Primary Care. *American Journal of Preventive Medicine*. 35(5S), S414-422. 2008.
- Hung, DY., Glasgow, RE., Dickinson, LM., Foshaug, DB., Fernald, DH., Balasubramanian, BA., Green, LA. The Chronic Care Model and Relationships to Patient Health Status and Health-related Quality of Life. *American Journal of Preventive Medicine*. 35(5S), S398-406. 2008.
- Cohen, D.J., Tallia, A., Crabtree, B.F., Young, D. Implementing Health Behavior Change In Primary Care: Lessons from Prescription for Health. *Annals of Family Medicine*. 2005 Jul-Aug;3 Suppl 2:S12-9.
- Hung DY, Rundall TG, Crabtree BF, Tallia AF, Cohen DJ, Halpin, HA. Influence of primary care practice and provider attributes on preventive service delivery. *American Journal of Preventive Medicine*. 2006, 30(5) 413-422.

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- Hung, DY, Rundall, TG, Cohen, DJ, Tallia, AF, Crabtree, BF. "Productivity and turnover in primary care practices: The role of staff participating in decision making." *Medical Care*. 2006. 44(10): 946-51.
- Hung, DY, Rundall, TG, Tallia, AF, Cohen, DJ, Halpin, HA, Crabtree, BF. "Rethinking prevention in primary care: Using the Chronic Care Model to improve health risk behaviors." *Millbank Quarterly*. 2007, 85(1):69-91.
- Balasubramanian, BA., Green, LA, Cohen, DJ. Crabtree, BF., Tallia, A. Isaacson, N. Graham Center One-Pager: Improving Behavior Change Counseling in the Medical Home. *American Family Physician*. 76(10):1. October 2007.
- Balasubramanian, BA., Green, LA, Cohen, DJ. Crabtree, BF., Tallia, A. Isaacson, N. Graham Center One-Pager: Use of Registries in US Primary Care Practice. *American Family Physician*, 75(11): 1629. November 2007.
- Bodenheimer, T, Young, DM, MacGregor, K, Holtrop, JS. (2005). Practice-Based Research in Primary Care: Facilitator of, or Barrier to, Practice Improvement? *Ann Fam Med* 3: S28-S32

## Evaluation Lessons Learned

**Through its work on *Prescription for Health*, the evaluation team identified several factors that facilitate a program's incorporating lessons learned through the program evaluation. These factors include:**

- Identifying credible leaders in the field who are committed to the goals of the program and are willing to work collegially.
- Establishing working together and trust as program norms from the beginning of the program.
- Jointly planning the program and its evaluation.
- Developing a shared vision and shared sense of ownership for the program.
- Designing an evaluation that collects and shares data in real time.

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Prepared by: Katherine Garrett  
Reviewed by: Lori Melichar, Sallie Holmes, and Amy Woodrum  
Program Officers: Rosemary Gibson (originally Susan B. Hassmiller)  
Evaluation Officer: Laura Leviton  
Program Area: Quality/Equality  
Grant ID#: CQI  
Key Contact: Larry Green, Director [Larry.Green@uchsc.edu](mailto:Larry.Green@uchsc.edu)

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