



Evaluation of a Tobacco Cessation Initiative for Pregnant Women

The Smoke-Free Families Prenatal Demonstration Projects

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Smoke-Free Families National Dissemination Office

A seven-year grant to evaluate and promote evidence-based smoking cessation for women & their families



1. Assure that all pregnant women are asked about their tobacco use
2. Assure that all pregnant smokers receive evidence-based interventions (5 A's)

Prenatal Demonstration Projects

- Exemplary demonstrations using quality improvement methods
- Develop, implement, and evaluate a *systems level approach* to help prenatal care providers deliver smoking cessation services
- Use the findings to assist other organizations in implementing the best practice interventions for pregnant women who smoke

Oregon Smoke Free Mothers and Babies



Incorporate 5 A's via technical assistance and trainings, team meetings, and infrastructure support within case management system

Maine Prenatal Collaborative



Adapt collaborative model focused on tobacco treatment with team learning sessions and on-site technical assistance

Oklahoma Smoke-Free Beginnings



Use physician enhancement assistants to conduct academic detailing around the 5 A's within practices

Evaluation

Process Evaluation:

- Assess how the prenatal demonstration projects implemented systems changes related to the 5 A's in their practice settings

Outcome Evaluation:

- Measure changes in number of health care providers delivering the 5 A's to their pregnant clients
- Measure changes in the number of proactive referrals to the state quitline

Six Areas of the Health Care System from the Chronic Care Model[©]

Organization of the
Health Care
Delivery System

Self-Management
Support

Decision
Support

Delivery System
Design

Clinical Information
Systems

Community
Linkages

Process Evaluation: Instrument Development

- Modified Assessing Chronic Illness Care[©] tool plus open-ended questions
- Three versions:
 - Implementation / Practice Teams
 - Leadership Team
 - Steering Committee
- Modifications after pilot testing

Sample Items from Assessing Chronic Illness Care[©]

Factor	Little Support			Basic Support			Good Support			Full Support		
Incentives for Oregon Smoke-Free Mothers and Babies	...are not used to influence clinical performance goals			...are used to influence utilization and costs of tobacco screening and treatment			...are used to support patient care goals			...are used to motivate and empower case managers to support patient care goals		
Score	0	1	2	3	4	5	6	7	8	9	10	11
Evidence-based guidelines for prenatal smoking cessation	...are not available to case managers			...are limited to the distribution of pamphlets, booklets, or other written information			...are provided through trainings by cessation experts			...are incorporated into the system of care so that they become an integral part of case management visits with pregnant clients who smoke		
Score	0	1	2	3	4	5	6	7	8	9	10	11

Sample Open-Ended Questions

- What were your practice retention strategies?
- How were provider linkages to the quitline improved?
- What were the key external resources and expertise that were accessed by the project?
- How did your project interact with / contribute to other tobacco control initiatives across the state?
- What were the key elements of your program that would contribute to the sustainability of prenatal tobacco treatment services?

Process Evaluation: Methods

- Telephone interviews conducted six months after project initiation and twelve months later
- Qualitative data transcribed and entered into Atlas ti[©] for analysis of themes and to summarize recommendations
- A total of 48 transcripts were analyzed

Implementation Strategies

Organization of the
Health Care
Delivery System

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graph LR; A[Organization of the Health Care Delivery System] --- B[Leadership]; A --- C[Organizational Goals]; A --- D[Incentives]
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Leadership

Solicited support from physicians, tobacco cessation advocates, and tobacco foundations to serve on advisory boards

Organizational Goals

Defined goals in collaborative charters and cooperative agreements

Incentives

Allocated \$4,000 per county per year to defray costs of data collection; supplied children's books for client participation

Implementation Strategies

Decision
Support

Guidelines & Education

Synthesized research findings on pregnancy & tobacco and disseminated via website and provider trainings; delivered provider education through learning sessions

Self-Management
Support

Behavior Change Interventions

Trained staff and providers in motivational interviewing techniques

Implementation Strategies

Delivery System
Design

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graph LR; A[Delivery System Design] --- B[Team Functioning & Feedback]; A --- C[Follow-up & Continuity of Care]
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Team Functioning & Feedback
Held quarterly team meetings with feedback, site visits, video-conferences; reimbursed for travel and food

Follow-up & Continuity of Care
Designed proactive fax referral systems to state quitlines

Implementation Strategies

Clinical Information Systems

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graph LR; A[Clinical Information Systems] --- B[Reminder Systems]; A --- C[Registries]
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Reminder Systems

Included all components of the 5 A's in tobacco flow sheets; programmed tobacco screening and treatment modules into electronic medical record

Registries

Created capacity for practices to generate their own reports on client population of smokers in Access database

Implementation Strategies

Community Linkages

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graph LR; A[Community Linkages] --- B[Medicaid Coverage & Coordination]; A --- C[Partnerships With Community Organizations];
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Medicaid Coverage & Coordination

Instituted Medicaid rule change requiring delivery of “5 A’s” by maternity case managers

Partnerships With Community Organizations

Incorporated demonstration project into larger health initiative within the state medical association; collaborated with tribal clinics to increase accessibility of cessation services to American Indians

Outcome Evaluation

- Each demonstration project selected outcome measures based on:
 - provider population
 - implementation method
 - feasibility of data collection
- Common measures collected included delivery of the 5 A's and the number of referrals to the state tobacco quitline over time
- Highlighted gaps in information and challenges of collecting comprehensive data

Outcome Evaluation: Oregon Smoke Free Mothers & Babies

- Individual patients were recruited to participate and signed informed consent
- MCMs documented delivery of the 5 A's through the Five A's Intervention Record (FAIR form)
- Copies of the FAIR forms were faxed to the program manager in the central office for data collection and analysis
- Data collection occurred continuously over a three year period

Outcome Evaluation: Oregon

Delivery of the 5 A's

5 A's	Months 1-3 n=24 visits (17 smoking)	Months 9-11 n=204 visits (115 smoking)	Months 17-19 n=170 visits (104 smoking)	Months 25-27 n=176 visits (124 smoking)
ASK	100%	99%	96%	100%
ADVISE*	88%	87%	96%	96%
ASSESS*	65%	81%	85%	90%
ASSIST*	94%	89%	95%	93%
ARRANGE*	65%	70%	86%	70%

* Denominator = visits where client's status is "smoking"

Outcome Evaluation: Maine Prenatal Collaborative

- Tobacco treatment flow sheet was instituted in each participating practice
- No individual level data were collected for the project (business agreement rather than informed consent)
- Office staff were responsible for entering data from the flow sheets into the database every month
- The data were analyzed comparing the first and last months that each practice participated in the collaborative

Outcome Evaluation: Maine Delivery of the 5 A's

5 A's	Month 1	Month 8
ASK	61%	83%
ADVISE	62%	73%
ASSESS	48%	77%
ASSIST	50%	71%

n = 147 visits

Outcome Evaluation: Oklahoma Smoke-Free Beginnings

- Originally, PDAs were programmed with a 5 A's guideline and documentation program
- After pilot with four clinics, PDAs were replaced with paper tobacco treatment flow sheets that were instituted in all participating practices
- Flow sheets were incorporated into patient charts
- Practice Enhancement Assistants audited approximately 30 charts per practice every quarter for twelve months

Outcome Evaluation: Oklahoma Delivery of the 5 A's

5 A's	Month 3	Month 6	Month 9	Month 12
Ask (all charts)	69% (n=455)	75% (n=464)	83% (n=465)	70% (n=308)
Advise (current / former smokers)	54% (n=118)	64% (n=127)	62% (n=158)	50% (n=97)
Assess (current smokers)	40% (n=60)	73% (n=80)	74% (n=86)	73% (n=55)
Assist (current smokers)	27% (n=60)	51% (n=80)	58% (n=86)	55% (n=55)

Outcome Evaluation: Oregon Quitline Fax Referrals

- Dates: 35 months between January, 2002 and July, 2005
 - Quitline was suspended from April through November 2003
- Vendor: Free & Clear
- Fax Referrals: 89
 - Represents 18% of clients participating in Smoke-Free Mothers & Babies

Outcome Evaluation: Maine Quitline Fax Referrals

- Dates: 36 months between January, 2003 and December, 2005
- Vendor: Free & Clear
- Fax Referrals: 163
 - Represents 75% of all referrals for pregnant patients state-wide

Outcome Evaluation: Oklahoma SFB Quitline Fax Referrals

- Dates: 27 months between August, 2003 and October, 2005
- Vendor: Free & Clear
- Fax Referrals: 121
 - Represents 74% of all referrals for pregnant patients state-wide

Lessons Learned: Process Evaluation

- The Chronic Care Model[©] can provide guidance for organizations that are developing systems for prenatal tobacco treatment
- The Assessing Chronic Illness Care tool can assist evaluators in defining implementation strategies
- Some strategies were generalizable across projects and can be considered core program elements

Lessons Learned: Outcome Evaluation

- Quality of “real world” data are variable and difficult to interpret, but...
 - documentation of 5 A’s is feasible and content is relatively standardized
- Compared to national data, providers in the demonstration projects were providing more assistance to pregnant clients who smoke
- Proactive fax referral process can lead to substantial increases in pregnant women enrolling in quitline services

www.smokefreefamilies.org

Additional information on our website:

- Quality Improvement Models and Tools
- Clinical Process Tools
- Documentation Forms
- Provider and Patient Materials



The National Partnership for Smoke-Free Families is a national program supported by The Robert Wood Johnson Foundation working to discover the best ways to help pregnant smokers quit, and spread the word about effective, evidence-based treatments.

Tell us a little about you:

HELLO my name is
HELLO my name is
HELLO my name is
HELLO my name is
HELLO my name is
HELLO my name is
HELLO my name is

RESEARCHER
PROVIDER
Smoker
Friend or family
HUMAN RESOURCES
MEDIA
POLICY MAKER

I've been here before and I know what I'm looking for. Take me directly inside please.

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