ANNALS OF FAMILY MEDICINE

Online Supplementary Material

Dietrich A, Oxman T, Williams J, et al. Going to scale: re-engineering systems for primary care treatment of depression. *Ann Fam Med.* 2004;2:301-304.

http://www.annfammed.org/cgi/content/full/2/4/301/DC1

Appendix 6. Results

Health care organizations (HCOs) were selected to represent a range of settings that provide quality improvement support to practices. All have ongoing relationships with community practices, maintain quality improvement programs to support the process of change within individual practices, and had or planned to have a central care management office to provide telephone support for patients suffering from chronic illnesses. Finally, the leaders of these HCOs were committed to helping practices sustain the clinical model and adding additional practices through the practice change model if the randomized controlled trial demonstrated improved outcomes at affordable costs using available resources.

Each HCO identified and recruited 1 or 2 practices to participate in pilot testing (phase 1) of the clinical and practice change models, as well as additional practices for the randomized controlled trial (phase 2). Practices providing primary care to adults were selected based on their interest in improving depression care and their geographic location so as to minimize travel time for HCO quality improvement staff.

All 6 of the HCOs approached initially agreed to collaborate with the investigators—3 medical groups, 2 insurance plans, and 1 behavioral health network. These 6 HCOs were recruited to reflect the diversity of organizations nationally and because of their interest in enhancing depression care as indicated by representation at pertinent national meetings or through personal knowledge of the research team.

Phase 1 practices (n = 10), 1 or 2 from each HCO, were selected purposefully to allow exploration of the challenges involved in implementing the clinical model. While willing to hear about and attempt to implement the clinical model, phase 1 practices were not necessarily the most eager to modify their depression care. Clinicians in all 10 practices found the patient consent process daunting. Furthermore, communication with centrally-based care managers proved difficult, especially providing information to the care manager about follow-up office visits. Of the 10 practices, 8 (80%) were able to overcome these challenges with successful referral of patients to care management and use of the Patient Health Questionnaire-9 (PHQ-9) to monitor response. One HCO, an insurance plan, dropped out after phase 1 because of leadership changes and insufficient clinician participation. Given these experiences, communication forms were simplified, the skills training program was modified so as to be briefer and more focussed, and the training in the consent process for phase 2 was enhanced. Revised clinician skills training materials will be available at http://www.depression-primarycare.org.

Characteristics of the 5 HCOs participating in the randomized controlled trial are described in Table 1. The 3 medical groups were diverse in size and direct practice ownership. The 2 insurers were affiliated with more primary care clinicians, but they lacked ownership of practices. Instead, both provided insurance coverage for patients and provided mental health services for patients referred by primary care clinicians through carve-out arrangements. All 5 HCOs provided support for practices through established quality improvement infrastructures. The populations covered and the role of mental health carve-outs varied widely. The quality improvement programs ranged from established programs with extensive experience with telephonic chronic illness care management to new programs addressing depression as their first clinical focus area. The leadership of these HCOs indicated willingness to support costs of their resources for the long term if they proved beneficial.

Details about the 60 practices participating are also described in Table 1. The practices affiliated with 4 of the 5 organizations were small, averaging about 3 clinicians per practice, and recruited most of them (69%- 95%) for the trial. In the fifth HCO, the average practice size was larger (mean of 8.8 clinicians per practice) but fewer clinicians per practice participated (43% overall).

The 8 care managers covered an average of 9 clinicians each (range 2-25). All were employed by the HCOs. Four had nursing training, and 4 had earned a master's degree in psychology, social work, or public health. Six had previous experience in mental health care, 5 in patient telephone support, and 3 in primary care. Extensive training and a well-defined role allowed all to be able to work with the primary care clinicians. Five were transferred to this role from elsewhere in the organization, 2 were newly hired, and 1 provided contract services. Psychiatrists were either HCO employees or received an hourly consultant fee.

Table 1. Characteristics of RESPECT-Depression Project Participants, by Site

	Site				
Characteristics	**1**	**2**	**3**	**4**	**5**
Health care organization					
Type	Medical group	Medical group	Medical group	Behavioral health network	Insurer
Insurance products	Fee for service	None	None	Capitated	Capitated, fee for service
Practices (n)	139	21	87	65	296
Practices owned (%)	30	100	100	0	<1
Clinicians (n)	400	160	186	921	>700
Patient population*	>500,000 served	>100,000 served	320,000 served	>100,000 enrolled	2.3 million enrolled
Mental health carve-out (% patients)	25	60	70	100	0
Participating practices					
Number	19	10	14	8	9
Mental health on site, n (%)	4 (21)	4 (40)	0 (0)	7 (87)	0 (0)
Clinicians/practice-mean (range)	3.0 (2-6)	3.6 (2-7)	2.9 (1-6)	8.8 (2-11)	2.6 (1-4)
Clinicians participating (%)	77	95	69	43	83

Note: For medical groups, patient population is the estimated number of patients served by all practices in that group. For the insurer and the behavioral health plan, patient population is the estimated number of patients enrolled.

Nine hundred eighty-seven patients were referred to the Cornell Evaluation Center after completing a consent form. Of these, 433 were clinically eligible for the evaluation cohort and completed baseline interviews. Ineligible patients either met one or more exclusion criteria or failed to meet diagnostic criteria for major depressive disorder or dysthymia.