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Online Supplementary Material

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http://www.annfammed.org/cgi/content/full/8/Suppl_1/S45/DC1

Supplemental Appendix. Data Collection, Management, and Analysis

Data Collection

The data available to the National Demonstration Project (NDP) evaluation team included observational field notes from facilitator site visits and telephone conversations written by the NDP facilitators; field notes generated by members of the evaluation team at learning sessions; texts of all e-mail communication between the facilitators and the practices in their panel, as well as with project consultants; and field notes from facilitator-led conference calls generated by an observer from the evaluation team. In addition, a member of the evaluation team (E.E.S.) interviewed the facilitators after many of their site visits and at other eventful times. She also visited each practice to conduct interviews and make descriptive field notes from observations. During the year after the end of the NDP, she further conducted telephone interviews with each practice to fill in gaps in the data.

Although using data collected by the NDP facilitators is subject to unintentional bias, making use of their perspective was preferable to ignoring it. Before the actual initiation of the NDP in March 2006, the 3 facilitators were given initial training by the evaluation team in participant observation, depth interviewing, and emphasis on taking low-inference field notes. The training included an overview of the practice change and development model[1] to provide familiarity with our conceptual framework. They also participated in exercises in taking field notes using both videos and observation of actual clinical settings and using an observational template developed by the evaluation team.[2] The facilitators also received rehearsals and role playing in both key informant and individual depth interviews.[3]

Over the course of the 2-year NDP, four 2½-day learning sessions were held in Kansas City, Missouri, with the initial kick-off learning session being held in early June 2006. The learning sessions included both didactic sessions and time for discussion and reflection. In addition to providing all the Microsoft PowerPoint presentations and handouts, members of our team strategically placed themselves for maximal diversity of perspective and took observation field notes and conducted informal interviews with practice participants. For example, at the first learning session, the 3 facilitators each had a separate large table with the attendees from their panel of practices, and 2 observers from our team sat at each table. In taking field notes at each table, one team member focused on recording as closely as possible verbal conversations, while the other focused on any nonverbal cues, with both making notes as well as possible on which practice contributed to the observation.

During the first learning session, or shortly thereafter via telephone, e-mail, or both, each facilitator contacted the practices in his/her panel to arrange an initial 2- to 3-day site visit during the summer of 2006. Following the template suggested by the evaluation team, the facilitators made brief summary descriptive notes to capture initial impressions, discussions at meetings, and basic descriptions of the physical location of the practice and the staffing. To supplement the direct observations by the facilitators, each facilitator participated in subsequent conference calls with our team to enhance their descriptions and to respond to any unanswered questions. In addition to these baseline site visits, facilitators made 2 to 5 additional site visits as determined by

practice request, facilitator request, or both; however, field notes from follow-up visits were much less extensive than those made at the initial visit.

Throughout the NDP, we participated in conference calls with the NDP facilitators. Sometimes these calls were with individual facilitators and focused on specific practices, whereas at other times, all 3 facilitators participated as a group to address broader questions and concerns. During these calls, we would begin with open-ended update questions, but were also able to ask for clarification or confirmation of insights emerging from ongoing analyses. We captured the details of these conversations in field notes.

We also had access to extensive e-mail streams between the 3 facilitators and all the facilitated practices, as well as with external consultants. These e-mail streams were extremely rich and included full header information, such as date, time, and all recipients, making it possible to recreate much of the day-to-day exchange of information between the NDP and facilitated practices. In addition to e-mail communication, regular monthly conference calls were conducted by each facilitator with his/her 6 practices; a member of our team acting as an observer documented notes from these calls.

At the end of the 2-year NDP, a member of our team (E.E.S.) completed 2-day site visits to all facilitated practices for independent follow-up observation and key informant interviews with physicians and staff members. These visits resulted in additional field notes (25-50 single-spaced pages per practice) and concluded with each practice retrospectively reflecting on their experience of participation in the NDP. Subsequently, we also conducted a telephone interview with each facilitated practice to fill gaps in our understanding and to clarify which of the NDP model components were in place and when they were implemented. This conversation also generated additional information about the implementation process and progress during the 9 months after completion of the NDP.

Because of the nature of the NDP design, much less intense data were collected on the self-directed practices; however, a member of our team (E.E.S.) attended a learning session initiated by these practices midway through the NDP, and conducted subsequent 2- to 3-day site visits to each practice with extensive observational field notes (20-35 pages). As with the facilitated practices, a telephone interview was conducted after the NDP with each self-directed practice to fill gaps in the data and identify which NDP model components were in place and when they were implemented. Finally, at the fourth learning session, we made extensive field notes to capture observations and informal interviews with self-directed practice participants.

Data Management

All qualitative data were catalogued and uploaded to a secure Web site for access by our geographically dispersed team. Because of the large volume of data, a naming convention was established that included group (facilitated vs self-directed), practice name, date, and type of data. The Web site included separate folders for each practice in which data were organized by data type and date. In addition, other folders were used to organize data from learning sessions, practice conference calls, interim summaries, and so forth.

Data Analysis

As part of ongoing data analysis and quality checks, 3 of our members (P.A.N., B.F.C., E.E.S., and C.R.J). divided the 18 facilitated practices and read data as they became available. Each had a panel of 6 practices, 2 from each facilitator. Twice-monthly conference calls lasting approximately 1.5 hours were held (with E.E.S., who read data from all practices) for ongoing analysis and discussion. Each call included a review of the overall NDP and a focused discussion of 1 practice. To address any emerging questions, NDP facilitators were also invited to participate when the discussion centered on 1 of their practices. This ongoing analysis used a template approach influenced by the practice change and development model[1] to facilitate ongoing, real-time analysis of all practices. For example, we would explicitly discuss the role of stakeholders, a practice's capability to change, and influences of outside motivators. These analyses led to quarterly reports that were shared with the NDP staff and board of directors, and posted on the TransforMED Web page.[4]

In addition to the real-time preliminary analyses, a series of retreats for the evaluation team were held for extended face-to-face analysis and summary. A 2-day retreat with all 6 of our members and the 3 NDP facilitators was held in January 2007 to garner facilitator perspectives on each practice and the progress it was making in the NDP. This one was followed by another 2-day evaluation retreat in April 2007 in which the entire team discussed each facilitated practice in detail. Before the April retreat, we used a template to develop written summaries of each of our panels of practices to characterize each facilitated practice in terms of baseline status and progress to date. During the retreat, we generated a table for sorting practices according to their progress in the NDP and an assessment of their capability to change. A follow-up 3-day retreat was held in June 2007 to refine these assessments and to further sort the practices according to the number of NDP components implemented, the practices' capability to change at the midpoint, and the practices' vision for change. In September 2007, a 2-day evaluation retreat was held to do a similar analysis on the self-directed practices. In an April 2008 retreat, we began to pull together connections between qualitative and quantitative data, and further develop both the emerging notion of adaptive reserve in both facilitated and self-directed practices and the developmental nature of transformation to a patient-centered medical home. A final evaluation team retreat was held in January 2009, in which all NDP data were reviewed and discussed, and a dissemination plan was outlined.

The final stage of analysis was to systematically understand and describe the experience of practices as they proceeded through the NDP transformation. We consulted the tables constructed during the analysis retreats to identify practices that went through different trajectories over the NDP, with 5 practices ultimately being selected as case examples for more in-depth analysis. Two of the authors (P.A.N. and B.F.C.) spent 2 days reading out loud all the data from 1 practice to recreate the practice's experience and get a shared sense of how to construct each summary. Interestingly, this practice was not used as a case illustration because although it made substantial progress in building relationships over time, conflicts and challenges in the practice prevented it from implementing the majority of the NDP model components. The 5 practices selected were then divided up, and all available data were read and summaries were constructed of the transformation experience. We shared the summaries with the lead physician of each practice, which led to minor modifications in the descriptions.

References

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