Educating the Health Community: Selling Early Intervention to Primary Care Physicians

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Abstract

One of the toughest groups to reach with health promotion/education campaigns is primary care physicians (PCPs). Besieged by demands of HMOs and skyrocketing malpractice insurance, new regulations under HIPAA, and multiple demands for their attention, PCPs are also the recipients of luxuriously financed, well-researched appeals from pharmaceutical representatives offering blandishments beyond the dreams of public health professionals. But a small group of professionals in Hawai'i took on this challenge and succeeded. Why would we even try? How did we succeed? We report the evolution and evaluation of an educational outreach campaign targeting PCPs and aiming to increase their identification of infants and toddlers with special needs, and their referral of those babies to Early Intervention programs.

Keywords: outreach, physicians, early intervention, Hawaii

Introduction

Recent emphasis on early brain development, periods of increased susceptibility to environmental experience, and the importance of early emotional experience have focused attention on prospects for remediation of developmental problems very early in life. The true prevalence of developmental delays in the infant population is unknown, but estimates vary from 2% (the proportion of infants born with a diagnosable condition which entails developmental problems) to 20% (the proportion of school aged children judged to require exceptional services) (Haber, 1991).

In response to the importance and promise of very early remediation, Early Intervention (EI) services for eligible babies under the age of three are offered under Part C of the Individuals with Disabilities Education Act (IDEA). EI services promote the health and development of babies under the age of three who have, or are at risk for, developmental delays. Of course, to get these services, babies must be identified as potentially eligible for EI and then referred into the EI system of services. Health professionals who work with young children and their families are well placed to play a primary role in identification and referral. But these professionals cannot refer if they do not understand the EI service system, and they will not refer if they do not have confidence that the services will benefit their young clients. Hence the need for health promotion campaigns focused on EI.

Identifying the Need

The State of Hawai'i Department of Health (DOH) began providing EI services for infants and toddlers with or at risk for delay in 1990. As in many states, outreach to health professionals consisted of Grand Rounds presentations at the largest tertiary care hospital in the state; annual mailings of EI brochures designed for a broad audience to state members of the American Academy of Pediatrics (AAP); occasional presentations to small groups of professionals serving young children; and local efforts by individual EI programs in a few communities. These methods are only partially consistent with recommendations from the field of social marketing. Social marketing studies

indicate that efforts to educate a segment of the population are more effective when they are targeted and specifically designed based on an analysis of the needs and values of that particular group (Eisenberg, 1993; Glanz, 1997; Greco & Mankoff, 1985; Siegel & Doner, 1998).

Evaluation of EI "Child Find" – public awareness and referral activities – is required under IDEA. In Hawai'i, state resources had not supported comprehensive evaluation of existing outreach. Through DOH efforts, a collaborative evaluation of EI Child Find was funded by the US Department of Education, Office of Special Education Programs (OSEP). Completed in 1997, the evaluation showed serious problems in recruitment into EI: at least 25% of children with significant special needs who should have been identified and served before they were three years old never entered the EI service system (Derrington & Shapiro, 2003). Given Hawai'i's broad eligibility criteria, there were almost certainly a greater number of eligible children who failed to receive EI services to address their less obvious needs. These statistics were received with appropriate attention and concern within DOH and by external audiences including the state legislature. All agreed that renewed attention should be given to improving Child Find to ensure that more children received the EI services for which they were eligible. Improving Child Find would require revised promotional and educational outreach.

Project SEEK

To address this need, DOH partnered with the Center on Disability Studies at the University of Hawai'i to create, implement, and evaluate an evidence-based health outreach education program. The project, formally named "Strategies for Effective and Efficient Keiki (Child) Find," has the apt acronym SEEK. SEEK was funded partly through a second grant from OSEP.

SEEK convened an Advisory Board of stakeholders to guide the project. Members included representatives of all professional groups, major agencies and organizations serving very young children, as well as parents of young children with special needs. This group met frequently and played a major role in the response to the evaluation findings. Advisors' input shaped the Project's objectives and scope. The Advisors also provided information about the values and needs of the organizations and professional groups they represented, all of which are involved in EI Child Find.

From its inception, Project SEEK staff and Advisors intended to evaluate the effectiveness and efficiency of different outreach strategies, with the goal of laying the groundwork for sustained outreach after the end of the project. Data collection and analysis were conducted at every stage of the project.

So, When Do We Get To Primary Care Physicians? Selecting A Target For Outreach

Social marketing experts (Fine, 1990; Kotler & Roberto, 1989; Mankoff, 1985; Siegel & Doner, 1998) recommend selecting a target group and tailoring outreach specifically to that group. Furthermore, resources for outreach were limited, both within the project and within agencies that would sustain outreach in the future. Advisors decided to restrict outreach to one type of professional to comply with expert advice and make the most efficient use of our resources. The 1997 Child Find evaluation provided data to guide selection of a target group.

The 1997 evaluation included a survey distributed to six groups of professionals who work with young children and families. As a first step in selecting a target group, we calculated the proportion of each group who reported referring a child to E.I. within the past two years. Among those who had served at least one child with special needs during that time period, this proportion ranged from 8% of hospital nurses to 100% of Public Health Nurses. Hospital nurses and child care teachers (37%) showed the lowest rates of referral experience. Hospital social workers and primary care physicians (PCPs) had intermediate levels of referral experience (73 % and 76 %, respectively). The sixth group, paraprofessional home visitors, was marginally more experienced (81%).

The survey also asked what the respondent would do if they were serving a hypothetical child with special needs (CSN). Unfortunately, many social workers and PCPs who had referred to EI in the past, did not respond to this question by suggesting a referral to EI (6% and 19% fewer than had referred in the past, respectively). A potential explanation of this disappointing result could be that these professionals' past experiences with EI had been less than optimal.

The survey uncovered a low level of knowledge regarding eligibility and cost to families, both of which are key considerations when making a referral. For six of the eight eligibility criteria listed on the survey, from one third to three quarters of professionals gave incorrect responses. The most alarming result concerned cost. EI in Hawai'i is provided at no cost to families regardless of income. But fewer than 20% of childcare teachers, hospital nurses, social workers, and PCPs knew this, which may have deterred them from referring poor or uninsured families.

Home visitors and PHNs consistently indicated more experience, more knowledge, and more positive attitudes toward EI than the other groups, so we eliminated them from consideration as targets for outreach. To further explore the needs and values of the remaining four professional groups, we conducted focus groups designed to provide information on experience with and attitudes toward EI services, as well as how each participant preferred to learn professionally relevant information.

The Advisory Group met to select one of the four groups to target. Advisors identified selection criteria through a brainstorming process. Then each Advisor chose three criteria that s/he felt were the most important. The top-rated criteria were: number of children under the age of 3 encountered by the professional (12 of 17 Advisors); number of children with special needs studied in the Child Find Evaluation who had not received early intervention, and who had had contact with the professional group (9 Advisors); and a three-way tie between readiness to attend to the message and change their behavior, prospect that receipt of outreach would benefit individual professionals, and awareness of EI as indicated by the survey results (each chosen by four Advisors).

Advisors then discussed how the five criteria applied to each of the groups, based on available data, focus group input, and Advisors' own knowledge and perceptions. Following the discussion, each Advisor nominated one group. Childcare teachers and PCPs received all the nominations. PCPs see far more children under three than childcare staff (very few infants and toddlers attend center based child care). The 1997 evaluation provided additional evidence in favor of selecting PCPs. Most parents of the CSN who had not received EI had brought their concerns to the child's PCP; but 81% of these PCPs either were not concerned or noted the concern but took no action to address the issues. Weighing all the evidence, Advisors unanimously selected PCPs as the target group even though they were considered less motivated to learn about EI than were childcare providers.

How Do You Sell EI To PCPs? Selecting An Outreach Strategy

A literature review as well as experienced local and national consultants warned us about the considerable challenges in getting the attention of PCPs and in changing their behavior (Bennett, Guralnick, Richardson, & Heiser, 1983; Dobos, Dworkin, & Bernstein, 1994; Greco & Eisenberg, 1993; Guralnick, Heiser, Eaton, Bennett, Richardson, Groom, 1988; Guralnick, Bennet, Heiser, Richardson, Shibley, 1987; Mayefsky & Foye, 1993; Phillips, Friedman, Zebal, 1984; Smith, Singleton, Hilton, 1998; Tierney, Hui, McDonald, 1986). Our Advisors were quite undaunted by this evidence. They were convinced that we should focus on PCPs and that success depended on identifying and implementing the right methods. We collected a multitude of strategies recommended or used to educate PCPs from a variety of sources:

Figure 1
Well Child Visits Provide Opportunity To Identify CSN

1. Published literature on changing physician behavior (e.g., Buck, Cox, Shannon, & Hash, 2001; Dobos, Dworkin, & Bernstein, 1994).
2. Conference presentations and tele-conferences (e.g., Goodman, McMurrer-Kaminer, Hill, Jones, & Rawlings, 2000).
3. Seven focus groups or individual meetings with 20 physicians (pediatricians & family practitioners).
4. A 1998 national survey of other states' Child Find activities (Shapiro, July 2002).
5. Child Find materials and program efforts from six other states.
6. Personal communications with physicians and professionals experienced in outreach to physicians.
7. An informal survey distributed in 1999 to 37 physicians (return rate 70%) and 28 parents of CSN (return rate 43%). Respondents listed benefits and disadvantages of EI.

We studied strategies ranging from presentations for Continuing Medical Education (CME) units at Grand Rounds to printed information and promotional items to putting an EI consultant in physicians' offices. We recorded information on: 1) the general strategy, such as live presentations, mailings, or video conferencing; 2) who should deliver or sponsor it; and 3) more detailed advice specific to one or more general strategies (e.g., use live demonstrations in presentations, conduct outreach campaigns in the fall, and recruit PCPs through newsletters).

Selecting a general strategy from this array of information posed a considerable challenge to the Advisory Group. There was mixed evidence regarding the effectiveness of face-to-face presentations. Some projects had had success with group presentations, and most physicians themselves suggested presentations. On the other hand there was ample evidence from focus groups and personal communications that it was very difficult to get physicians to show up for educational meetings, especially when the subject matter is not currently a medical "hot topic" or prominent in news media. Evidence regarding the effectiveness of print, video, and promotional materials was also mixed. And some strategies successfully demonstrated by other states, such as establishing an EI consultant in physicians' offices required resources unavailable to us (PEDI-Links, 2003). After grappling with the evidence, project Advisors decided on two strategies: 1) A seminar series, and 2) postcards mailed on a regular periodic schedule.

Once we had selected face-to-face presentations as our primary strategy, the first challenge, as suggested by our review, was how to get PCPs

to actually *attend* the seminars. Like recommendations for general strategy, suggestions for recruitment were sometimes contradictory. For instance, one local PCP advised us that fall was the best time to offer seminars, two recommended summer, and two others said summer was not a good time – each giving logical reasons for their opinions. To deal with the number and inconsistency of recommendations, we first identified strategies that had actually been tried, noting the level of attendance achieved. Project Advisors used these data to narrow the field of recommendations under consideration.

We incorporated as many of the remaining suggestions as feasible, which included arranging for CME units, holding presentations alternately at lunch and in the evening, and providing written and phone reminders of meetings. Suggestions we abandoned included holding a golf weekend at a resort or bringing in a nationally prominent physician with "star quality" (too expensive), and presenting at hospital Grand Rounds (where the time available for presentations was very short).

To select the content for the presentations and postcards, we gathered information from publications (AAP, 1992; AAP, 2001a; AAP, 2001b; Garwick, Patterson, Bennett, & Blum, 1995; Krahn, Hallum, & Kime, 1993; Solomon, 1995), national medical home meetings, focus groups with parents and other professionals, notes from a local community forum on the medical home, and the 1997 Child Find Evaluation survey in addition to the sources consulted to identify general strategies. We summarized suggested content into four major categories:

- Identification of developmental delays
- Raising concerns with and eliciting concerns from parents
- Research on the benefits and effectiveness of EI
- Referral and enrollment: process, eligibility, cost, available services

We also gathered information from these sources regarding the format and specific teaching techniques for presentations and the design of supporting materials. We decided to present a series of contacts based on the sheer amount of content that we had selected, together with consistent reports from all sources that physicians can and will only be available for short periods of time during the work week and are unlikely to attend weekend events unless substantial incentives are offered. Following the selected recommendations, presentation methods included:

- Format: A series of three, 90-minute seminars presented by two physicians, the SEEK Director, and local EI program staff.
- Media: Power Point presentations, videos, interactive opportunities.
- Materials: Binder of printed materials, promotional items, high quality food.
- Location: A nice restaurant, local EI program, or other attractive site close to hospital.
- Time: lunch or evenings, scheduled by polling local community PCPs.
- Recruiting: Announce seminars in professional newsletters, poll PCPs about available dates, post bulletins and distribute to PCP mailboxes at hospitals and clinics, request RSVP, charge a small fee, fax a reminder 1 week before, and call the PCP one day before to confirm.

Table 1 presents the presentation plan, including details on content and materials for the three-part series.

Bending Over Backwards: Implementing the Educational Outreach Strategy

We had received anecdotal reports that PCPs in Hawai'i's various geographically separated communities responded differently to health promotion/education campaigns. Following social marketing evidence on the effectiveness of targeting content and methods to a specific population, we selected one community in which to test our methods. The community was selected based on criteria identified by our Advisors (e.g., number of very young children in

the community). We surveyed the PCPs in this community to develop a better understanding of each PCP's knowledge about, experience with and attitudes toward EI services. Using a mail survey and multiple follow-up contacts, we achieved a return rate of 84.4%. A high return rate was critical to ensure that the content we would address was appropriate to these particular physicians. Much of our survey data corroborated published literature identifying gaps in PCP knowledge, regarding their experience with and attitudes towards EI, or the challenges they face in real-life practice that pose barriers to identifying children with special needs and/or referring them to EI (Dobos, Dworkin, Bernstein, 1994; Guralnick et al., 1988; Phillips, Friedman, & Zebal, 1984).

Table 1
A User's Guide to Early Intervention Services CME Seminar Series

Seminar Title	Seminar Content				Materials
	Identification	Communication with Parents	Effectiveness	Referral & Enrollment	
Realistic strategies to identify children eligible for Early Intervention services in primary care practice	✔	✔	✔	✔	▪ Research reviews & annotated bibliographies ▪ Standardized developmental screening tools ▪ Published articles/booklets ▪ Information on EI in Hawai'i ▪ Promotional items
What DOH programs can provide for your patients			✔	✔	▪ Research reviews & annotated bibliographies ▪ Published articles/booklets ▪ Information on EI in Hawai'i ▪ Promotional items
Simple ways to successful referrals: How PCPs can ensure children get needed EI services		✔		✔	▪ Published articles/booklets ▪ Information on EI in Hawai'i ▪ Promotional items

In implementing our strategy, we complied with all of the feasible recommendations we had collected. We began the scheduling and recruiting process in the early fall (the season most-often suggested by local focus groups). We enlisted two PCPs who were well known and respected at the state level as co-presenters. The Academies of Pediatrics and Family Physicians approved our seminar agenda and materials for CME credits. We persuaded a PCP member of the Early Intervention Governing Council and the Chairs of the local chapters of the American Academies of Pediatrics and Family Physicians to "sponsor" the seminars.

We also solicited the support of the County Health Officer (a physician). We listed the names all four of these physicians in invitations to attend the series.

The seminar opportunity was announced in newsletters of the local medical Academies and of a large HMO, and on attractive bulletins posted in local hospitals and clinics. Registration information and materials were included with these advertisements, designed with the assistance of our physician Advisors.

We arranged to attend a pediatric business meeting in our target community to put in a plug for the seminar series. Working with local EI program staff, we identified a well-known local PCP who was a "champion" of EI, and obtained his support and assistance in our recruiting efforts. Fortunately, he was just retiring, so he had time in addition to the inclination to help us.

To maximize attendance, we sent out a scheduling poll asking for times when PCPs would be available. With few registrants and responses to the poll after considerable advertising in the different venues, we asked our "champion" PCP, the Pediatrics Department Head, and an EI program manager who had worked with some of the PCPs to help us telephone PCPs who had not responded. This extra effort produced schedule preferences for a few more PCPs. We then selected the date and time that would accommodate the majority, notified all invited PCPs, and updated the posted bulletins in hospitals and clinics.

We sent flyers to PCPs' mailboxes a week in advance of the first seminar. At our request, our "champion" PCP called selected PCPs a few days before the event to encourage their attendance. Based on the recommendation that physicians want to receive high quality and practical materials, we armed this obliging "champion" with descriptions of the materials we would distribute (see Table 1). We asked families who had been referred to EI programs by their PCPs to call them, following advisors' input on how much parents can influence PCPs.

The day before the first seminar, we were set to impress. We had reserved the elegant boardroom of a local corporation, the food, the materials, and the presenters. We were ready for the PCPs who had indicated they would come. But, when we called to confirm, no one was coming! Considerably disheartened, we canceled the presentation. Nonetheless, motivated by the desire to ensure that all eligible infants and toddlers receive the EI services they deserve, we regrouped and tried again.

Going back to our scheduling poll, we selected 2 dates that were at least 3 weeks in the future to allow enough time for advance notice. And we went through the routine again, advertising both dates as alternates. No PCP indicated they could attend the first date, so we canceled that session. For the second date, the boardroom was not available, so we scheduled a room in the facility housing a local EI program. Again, we announced the seminar by mailing bulletins and flyers to hospitals and clinics, mailing and faxing registration forms, and enlisting supporters to make telephone calls.

In spite of our effort to collect RSVPs, they did not accurately predict attendance. Two weeks prior to the seminar, seven PCPs from our target group indicated they would attend this seminar; however, when we called the day before, we could only confirm three plus our "champion" PCP. Our "champion" plus three PCPs (out of 16 in our target group) did attend, but one who had confirmed the day before did not, and one who had declined was present. Despite the low turnout, attendees were enthusiastic about the quality of the presentation and the information provided. At last we had our foot in the door.

We moved forward with scheduling and announcing the second in the planned series of three seminars. Once again, we enlisted parents to help us call PCPs. We did not have a parent caller for over half of the group, so we asked PCPs who had attended the first session to call PCPs they knew. Again, only one PCP could attend the first date selected, so we canceled that seminar. The day before the second date, we confirmed attendance for six target-group PCPs; only three showed up!

In order to complete the seminar series for those who had attended the first two, we scheduled the third planned seminar. Rather than asking families to call PCPs, which had proven difficult for the families and ineffective with the PCPs, we decided to ask families to sign and mail prepared, hand-written notes. We went through the calling/confirming routine one more time; this time, only one target PCP attended.

During the implementation of the seminar series, we sent out seven different postcards at monthly intervals. Based on the gaps in knowledge revealed by our surveys and on the content and timing of the presentations we were planning, we created attractive post cards with information succinctly addressing relevant topics, for example:

> "Fast Fact: Fifty percent of two-year-olds who do not use at least 50 words will not 'grow out of it' by the time they start school. Zero to Three services can help! To refer a child for a free evaluation, call H-KISS, 1-800-235-5477."

To determine whether the post card strategy worked, we needed to know whether the PCP, or anybody in the office, had read the postcard. We attached to each postcard a tear-off mail-back announcement of a raffle for a prize such as a gift certificate to a local bookstore. Our overall "return rate" was 80% (i.e., 12 of 15 PCPs returned the raffle portion for at least one post card); returns on individual postcards ranged from 33-60%.

Waiting In Line With Pharmaceutical Rep's: Mid-Course Correction To Individual Presentations

Our implementation experience had proven to us that group presentations, even those designed with virtually all national and local experience in mind, were not efficient. The rationale for outreach to PCPs was as pressing as ever, but clearly a new methodology was in order. Reconsidering our strategy, which was to become a familiar experience, we consulted with our Advisors regarding our lack of recruiting success. They advised us to continue with the presentation strategy, but to schedule individual meetings with each PCP in his or her own office. We all hoped some efficiency could be achieved by making group presentations to PCPs in group practices.

Although one of the incentives for attending the group presentations was the offer of CME units, this required a physician presenter. As committed as our physician presenters were, it was not feasible for them to travel repeatedly to a distant community to meet with individual PCPs. Thus our individual presentations would not carry CME credits, which in any event had not proved an irresistible draw to our target PCPs. The SEEK Project Director (accompanied by local EI staff when available) was selected as the most credible presenter.

Due to project time constraints, we needed to complete implementation of this outreach within eight months. This constraint, together with the anticipated challenge of persuading physicians to accept proposed meetings, convinced us to condense the three seminars into two presentations.

Most of the other recruiting strategies we had developed were not appropriate for individual presentations. Since PCPs would be accommodating us in their own offices, no fees would be charged. No further notices were posted or mailed. Changing our tactics, we made as many phone calls to each PCPs' office as necessary to schedule each presentation. Offering to bring food for the PCP appeared to open many doors, as our research had predicted.

Figure 2
Individual Presentation in PCP's Office

Waiting in line for time with a PCP, along with pharmaceutical representatives, the Project Director had the opportunity to observe their "outreach" strategies. One of the more notable performances was the delivery of a drug sample by two attractive women in cheerleader outfits, complete with a cheer! We were also definitely upstaged in the provision of food, as these well-funded salespeople often brought complete meals for everyone in each office they visited.

Completing the implementation of our individual presentations in the face of this competition required high levels of effort, flexibility, and perseverance. Nonetheless, without cheerleader outfits or stacked take-out meals, we came very close to reaching each targeted PCP with two individual or three group presentations over a 10-month period. Thirteen of 16 target PCPs received all planned content; two more received at least half of the content. The one PCP we were unable to reach was on leave during the implementation period. Figure 3 shows the significant difference in attendance of group vs. individual presentations (Uncertainty Coefficient, UC = 0.359, $p < 0.0001$).

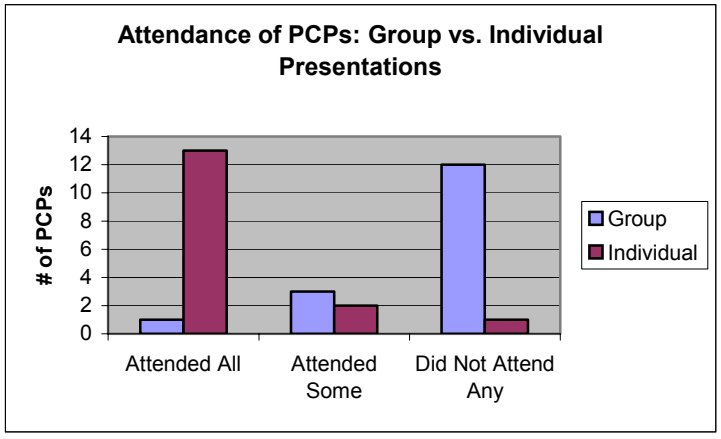

Figure 3
PCP Attendance by Presentation Format

Did the PCPs "Buy It"? Evaluation by the PCP's

To learn what the PCPs thought of the outreach, the SEEK Project Coordinator conducted a telephone or fax interview with the fifteen PCPs who attended any presentation. We expected fairly candid responses to the Coordinator because she had not made extensive contact with PCPs. Three physicians faxed their responses to our questions, and three provided input over the telephone (40% response rate).

We asked each PCP to rate the content of the presentations on a three-point Likert scale with anchors "definitely keep as is," "keep but modify," and "do not use in future outreach." Feedback on the 19 content areas was generally positive. The majority of the PCPs recommended continued use of all 19 topics, either as is or with modifications (generally briefer format). One PCP did not support repeated use of eight of the 19 topics. Four topics received more ratings to "keep but modify" than to "keep as is"

PCPs provided recommendations for modifying topics or reasons why they should not be used. For ten of the 19 topics, PCPs gave contradictory recommendations: shorten (50% of modification suggestions for those topics), and expand (46%). Comments elucidating why PCPs felt we should drop a topic in future outreach included that knowledge of this topic was another professional's responsibility (e.g. developmental screening, transportation to services); PCPs are familiar with the topic (need for standardized screening, role of parent concern); and topic is "feel-good" but non-educational.

We asked PCPs what made them decide to participate in the outreach. Two PCPs cited persistence in project efforts to schedule individual presentations, with one PCP adding that EI was an important community service. Another attributed his participation to convenient scheduling at lunchtime. Content on referrals and EI services was appreciated by three PCPs: Two cited a desire to learn more, and one said physicians are responsible for knowing this information.

Including EI staff in presentations was an added scheduling challenge, so we asked how valuable their presence was. Responses were positive overall, with one neutral and one "not helpful" response (EI staff assisted with all of the group presentations, but with only seven of the 15 individual presentations).

Suggestions for modifying the presentations in future outreach were also solicited. Recommendations included making them shorter; holding group seminars during early morning, lunch hour, or at close of working day; presenting at existing large group meetings of PCPs (e.g., at annual academy meetings) with later consultation to review and reinforce the information; and not charging registration fees. Two PCPs acknowledged that PCP schedules make face-to-face outreach very challenging, and one felt that we could not have done much more to accommodate PCPs.

During our presentations, several PCPs reported insufficient or delayed communication from EI programs regarding patients whom they had referred to EI programs. They also wanted information from EI programs about any patients who were referred to EI in other ways and were enrolled in EI programs. The importance to PCPs of such communications was reinforced at a meeting of OSEP Child Find Projects with the Medical Home subcommittee of the AAP (Omaha, NE, November 2000). To explore this issue, we asked PCPs to tell us what kind of feedback they usually received, what they would prefer, and what they considered timely. PCPs reported receiving phone calls and written communications; however, EI staff often called the wrong doctor! Written communications, usually developmental evaluations, were important to these PCPs, but should be shortened. Two PCPs wanted feedback on whether a child they had referred actually enrolled in the program, whether the child and family consistently attended, and what needs were being addressed. Preferences for timeliness differed; responses ranged from within one week of any change (two PCPs) to annually (one), including various intermediate suggestions. One PCP explained that developmental evaluation reports should arrive

within one week in case the child has an appointment, as the evaluation results could be helpful during the medical appointment.

Overall, the six PCPs evaluated the outreach positively; evidence on the impact on referral rates and the knowledge/experience/attitudes survey is forthcoming and will contribute to a more definitive measure of effectiveness.

Fluke Or Fact – Can We Do It Again? Implementing Outreach In A New Community

Encouraged by the evaluations and curious as to whether this would be replicable, we decided to conduct individual presentations in a second community. However, looking toward future sustainability, our Advisors wanted to minimize the need for ongoing face-to-face meetings with physicians. The search for strategies sustainable by local EI programs led Advisors to consider enhancing communications from EI programs to PCPs of enrolled children. We now had three sources of feedback from PCPs – initial focus groups, discussions during presentations, and the national Medical Home subcommittee on Early Intervention meeting – that inadequate communication between their offices and EI programs detracted from referrals. So, during our replication in a second community, we worked with EI programs to enhance their communications with PCPs about referred and enrolled patients. PCPs who did not have patients enrolled in EI would not be receiving the enhanced communications, so Advisors decided we would also need to make presentations to these PCPs.

The presentations were essentially the same; however, the advisors helped us devise a leaner strategy in response to advice to shorten the presentations and to decrease staff effort in implementation. Presentation content was individualized to reflect each PCP's survey responses, emphasizing topics to target those for which the PCP had made the fewest optimal answers.

The strategy revision to decrease implementation effort was to offer presentations to PCPs who had made few or no referrals to EI programs, but not to the few PCPs who were frequent referrers. However, EI program staff informed us that the one frequent referrer habitually referred children who were almost three years old, leaving little to no time for children to receive services. So we decided we would need to make presentations to all 19 PCPs in our new community. By the end of our seven-month implementation period, which was limited by the duration of our federal funding, thirteen (68%) of these PCPs had participated in both presentations, while three (16%) had attended one and three others (16%) had not attended any. Although participation was slightly lower in the second community, there was no significant difference in attendance between the communities ($p > 0.60$, UC = 0.019; see Figure 4).

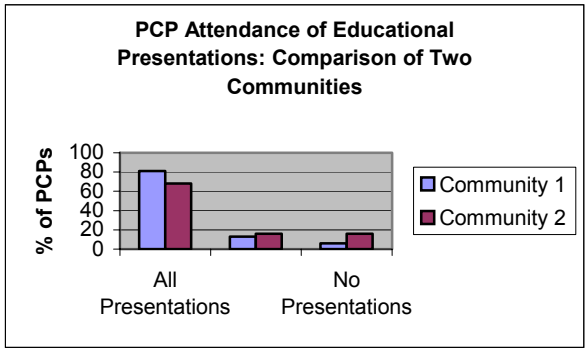

Figure 4
Community Comparison of PCP Educational Presentation Attendance

We presented PCPs with the same materials used in the first community, and added four more.

- A booklet describing EI services (Derrington, 2001).
- A brochure describing eligibility, services, cost, and referral for EI services.
- A plexi-glass brochure stand for the physician's office to display brochures.
- A list of EI eligibility criteria back to back with a list of EI services and the state I&R phone number, offered in two laminated formats: a pocket card or full sheet pierced for hanging in an office.

During the planning phase for the enhanced communications, we met several times with the EI programs in this community to find out how they currently communicated with PCPs, and how we could work with them to enhance communication and track distribution to PCPs. Communications to PCPs of referred or enrolled children were enhanced in two ways. First, we dramatically increased the frequency of communication. Second, we used these "natural" opportunities to provide content about EI, referral and services. We designed attractive communication forms for each point in the referral, enrollment, and service delivery process where a communication with the doctor was desirable. Table 2 displays the communications and added educational content.

Table 2
Enhanced Communications

Communication Opportunity and Format	Content Area
Receipt of referral: "Thank you for your referral" card	Referral and enrollment
Result of referral: Notice of referral status -whether family accepted or declined evaluation for eligibility, could not be contacted, enrolled, or transferred to another program	Referral and enrollment
Completion of developmental assessment: Cover page to accompany evaluation or screening report	Identification of developmental delays
Upcoming service planning meeting: Notice of and invitation to attend meeting or provide input (in two versions for initial and subsequent meetings)	1. Referral and enrollment 2. Identification of developmental delays
Completion of service plan: Cover page for the Individual Family Service Plan (in two versions for initial and subsequent plans)	1. Referral and enrollment 2. Research on the benefits/ effectiveness of EI
Discharge: Notice of Discharge	Referral and enrollment

We tracked the number and type of communications sent to each PCP. Over a seven-month period, 358 communications were sent to thirteen PCPs (range 2-112 per PCP, mean = 25, SD = 31) regarding 137 children. The number of communications per child ranged from 0 to 8, averaging 2.6 (SD = 1.9). The notice of referral status was sent most frequently (19.8% of communications sent), and the notice of discharge was the least frequent (7.0%).

Measuring Marketing Success, Round 2: Evaluation by PCPs

The SEEK Director and Coordinator had been in extensive contact with PCPs in the second community to conduct surveys, and schedule and conduct presentations. To obtain feedback from the PCPs untainted by these relationships, the project hired a graduate student to conduct fax or phone evaluation interviews. We randomly selected five PCPs who had attended

both presentations and two who had attended one presentation to participate in the evaluation. Two more randomly selected physicians replaced PCPs who proved very difficult to engage.

The evaluation interview was modeled after that used in the first community, with six modifications. Questions were tailored to address only the topics covered with an individual PCP. Three topics were dropped because over 80% of PCPs in the first community indicated we should definitely keep them "as is." Six other topics were combined into two more general ones (e.g. combining individual EI services into an "EI services" category). These changes reduced the number of topics to be rated from 19 to 10. We added seven ratings for the materials PCPs received during the presentations. Four new questions addressed communications from programs. Finally, we added an open-ended solicitation for comments on other aspects of outreach or communication.

The majority of PCPs recommended keeping "as is" every one of the topics and materials (57.1-100%; mean = 84%, SD = 12.6%); four topics were unanimously approved. Although rated highly by the majority of PCPs, literature reviews, annotated bibliographies and reprints of articles (e.g. Solomon, 1995) were less popular than other materials, with one comment that the PCP had no time to look at or use the binder. Thirteen of the 17 topics/materials received one or two ratings of "keep but modify." Suggestions were again contradictory, as recommended modifications included providing a reference citation rather than a reprint (two PCPs), and providing more research or detail (three PCPs).

Table 3 presents a comparison of how topics were rated in the two communities. "Definitely keep as is" ratings were remarkably different between communities for ten of the 13 topics compared. Differences between the communities achieved significance for two topics. The difference was moderate for information on EI program staff qualifications (UC = 0.409, $p = 0.015$). The communities differed marginally regarding talking to parents about concerns (UC = 0.319, $p < 0.05$). Research materials on the effectiveness of EI was the only topic rated exactly the same.

As in the evaluation by PCPs in the first community, we asked the second group what made them decide to meet with the Project Director, to comment on the value of the presence of an EI staff member (when applicable), and for suggestions on how we could improve the presentations. Responses to the first question were somewhat similar to comments from the first community. Four PCPs stated that the Project Director called and offered presentations; three stated they were interested in learning about what EI offers; two indicated that they were firm supporters of EI and therefore willing to meet; and one PCP said the scheduling was very accommodating.

Ratings of the value of EI staff presence were again positive; these PCPs felt even more positively about EI staff presence than PCPs in the first community. They made fewer suggestions for how to improve the presentations than the first group. The new suggestions were: Cut down on unnecessary materials, provide more research on EI effectiveness, and be sure to include EI staff. Comments from two PCPs supported the strategy of individualized presentations in PCPs' clinics.

PCPs did remember receipt of communications about their patients from EI programs, specifically evaluations and/or progress reports. One PCP noted that more came from one EI program in the community than the other.

Communication timeliness and value were judged positively. Only one PCP stated that invitations to service planning meetings arrived too late for her to adjust her schedule. Four PCPs stated that the communications were very valuable, and the other was neutral. One PCP commented that only the evaluation reports were useful.

Table 3
Ratings of Outreach Presentation Topics by PCPs in Two Communities

Topic (# ratings total)	Rating*	% in First Community	% in Second Community	% Total Both Communities
Brain development (12)	1. Keep	40.0	85.7	66.7
	2. Modify	60.0	14.3	33.3
Evidence that early delays do predict later delays (13)	1. Keep	66.7	85.7	76.9
	2. Modify	33.3	14.3	23.1
Research on effectiveness of EI (12)	1. Keep	66.7	66.7	66.7
	2. Modify	33.3	33.3	33.3
Screening instruments - examples & psychometrics (13)	1. Keep	66.7	71.4	69.2
	2. Modify	16.7	28.6	23.1
	3. Drop	16.7	0	7.7
Role of parent concern in identifying developmental delays (13)	1. Keep	50.0	85.7	69.2
	2. Modify	33.3	14.3	23.1
	3. Drop	16.7	0	7.7
Zero to Three program staff qualifications (13)	1. Keep	33.3	100	69.2
	2. Modify	50.0	0	23.1
	3. Drop	16.7	0	7.7
Description of EI Services: Care Coordination (12), Transportation (11), Parent Support (12), & Transition at 3 (12)	1. Keep	47.8	83.3	66.0
	2. Modify	43.5	16.7	29.8
	3. Drop	8.7	0	4.3
Videos showing parents or PCPs talking about EI (17)+	1. Keep	41.7	80.0	52.9
	2. Modify	41.7	20.0	35.3
	3. Drop	16.7	0	11.8
How to talk to parents about concerns (10)	1. Keep	50.0	100	71.0
	2. Modify	50.0	0	30.0
Communication between PCP and EI: enrollment, IFSP, assessments (11)	1. Keep	66.7	100	81.8
	2. Modify	33.3	0	18.2

*Rating not reported if there were no such responses.
+Ratings from first community were for these topics separately; ratings were averaged.

As in the evaluation by PCPs in the first community, we asked the second group what made them decide to meet with the Project Director, to comment on the value of the presence of an EI staff member (when applicable), and for suggestions on how we could improve the presentations. Responses to the first question were somewhat similar to comments from the first community. Four PCPs stated that the Project Director called and offered presentations; three stated they were interested in learning about what EI offers; two indicated that they were firm supporters of EI and therefore willing to meet; and one PCP said the scheduling was very accommodating.

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Communication timeliness and value were judged positively. Only one PCP stated that invitations to service planning meetings arrived too late for her to adjust her schedule. Four PCPs stated that the communications were very valuable, and the other was neutral. One PCP commented that only the evaluation reports were useful.

In response to why communications were valued, one PCP said it was good to know that the parents followed-up with the program. Three PCPs felt the evaluations provided important detailed information that the PCP would not otherwise gather, but one felt that they were too long and would have preferred a short summary, which would also save on postage costs for the program.

We asked for suggestions on ways to improve communications. One PCP suggested they be shorter, and another said that communications could be made by phone to update the PCP.

Finally, PCPs commented on other aspects of outreach or communication:

- EI Programs should follow-up with the PCP after the presentations.
- EI Programs should give PCPs a laminated, pocket-sized card with EI staff names and roles.

The most gratifying response was that one PCP who had never referred a child to EI before the presentations made several referrals afterwards.

Discussion and Conclusions

We faced several challenges in trying to educate physicians about Early Intervention and promote changes in their practices. The primary challenge we had to confront was that physicians are notoriously busy and are constantly bombarded by messages from public and private interests. Secondly, and to our dismay, we also learned firsthand that individual differences on any dimension often overwhelmed commonalities. Although identifying the needs and values of PCPs was important, we learned to question the applicability of one PCP's advice to others. For example, some physicians advised us that lunch is a good time to meet because physicians like to have their evenings free, while others said lunch was a bad time because emergencies and other pressing medical business occur that require PCP attention during noon hours. (We scheduled presentations at many times and found that optimal timing depended on the individual physician - and that unexpected demands may occur at any time). Another type of challenge was sorting through the wealth of advice and recommendations we collected, only occasionally based on evidence and often mutually contradictory.

After some false starts, we devised an educational and promotional campaign which reached almost 90% of our target group in some way, and was well accepted not only by the physicians themselves but by state level stakeholders and local EI program staff. Of 35 PCPs targeted, 26 participated in all planned presentations and five more participated in some. Eighty percent of targeted PCPs responded to mailed postcards. Sixty-eight percent received enhanced communications about their patients from EI programs. Physician evaluations of delivery methods and content were very positive.

We attribute our success to observance of seven important principles or components. First, our outreach was based on a needs assessment that was credible to both our stakeholders, whose support was critical, and to our target audience, the PCPs. The 1997 Evaluation of Child Find in Hawai‘i was carefully designed and implemented, with both qualitative and quantitative data, large sample sizes, good return rates, and multiple measurements. Data collection, analysis and reporting were

scrupulous. As a result, our findings were quickly and widely accepted. The evaluation touched every community in the state, so when physicians and local EI staff asked us "But how do you know this is true in our community?" we were able to respond effectively. Most importantly, our evaluation demonstrated a level of need which immediately justified and even demanded response. The statistic that over 25% of children with significant needs were not getting early services available to them at no cost was distressing to every audience.

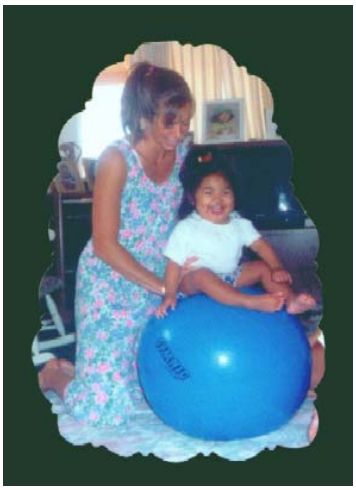

Figure 5
Photos Helped Explain EI Services to PCPs

The second component is an obvious one: obtain resources adequate to support the type of campaign necessary to reach your audience. For us, that meant obtaining a federal grant plus DOH commitments of staff, office facilities, and administrative support. Stakeholders allied with our target group were a very important resource. We built relationships with the local Academies of Pediatrics and Family Physicians and other important supporters through participation in our Advisory Group.

As emphasized repeatedly above, we relied heavily on social marketing theory and research in developing our campaign. Publications and experts in social marketing are quite consistent in their recommendations. We adhered to the recommended selection of a relatively homogeneous target group (in our case, PCPs and later, PCPs in a specific community). We conscientiously conducted research to identify the specific knowledge, attitudes and experiences with EI of our target group (i.e., their "needs" in the language of social marketing); their values, e.g. the influence of prominent physicians, and of patients, on their behavior; and their "learning styles" or preferences – for example, physicians are accustomed to learning through lecture formats rather than more active experiences. Our campaign was designed based on this research.

The social marketing knowledge base also suggests that repeated contacts and repetition of the message through multiple media enhances success. We scheduled a series of presentations, periodic mailings of postcards, and frequent communications from EI programs consistent with these suggestions.

Relying on social marketing research was a specific example of our fourth important principle: reliance on evidence based practice whenever possible, and on credible and feasible

expert advice when evidence is lacking. In selecting a target group, we relied on data on the number of children encountered and survey responses. In selecting a strategy we relied on social marketing research and on limited data on success of some strategies, but also on expert advice when evidence to support decisions was lacking. To determine the content of our campaign we considered data from focus groups and surveys. Occasionally, our data was inconsistent with the initial opinions of our stakeholders, but they always supported our decision to rely on data.

A valuable component of our project was the passion and persistence of its staff. Believing in the components and principles described here, we adhered closely to our plans and to advice we received. We maintained our focus on increasing the proportion of eligible children who receive needed services, inspiring us to make that umpteenth phone call or visit to a physician's office in order to gain their participation in a presentation or their completion of evaluation forms.

However, passion and persistence must be balanced by evaluation and flexibility. Our repeated evaluations forced us to confront evidence that our methods were not effective, or efficient. For instance, group presentations were not effective -- in spite of all our efforts, attendance was extremely low. In response, we re-designed our recruitment, materials and methods to individualize the presentations. Similarly, mailed post cards were ineffective-- recipients did not remember their content, so we abandoned that methodology. When we realized that individual presentations as we were implementing them required an inefficient commitment of resources, we adopted a complementary strategy to educate physicians through communications from EI programs, and shorter presentations to PCPs who did not have patients enrolled in EI programs. As these examples demonstrate, evaluation must be specific enough to reflect all aspects of a campaign -- scheduling, media, content, and effort. Planning, conducting and responding to ongoing evaluation is the sixth component to which we attribute our success. In the coming months, Project SEEK will further evaluate the effectiveness of outreach by comparing the number of children referred to EI programs by the targeted PCPs before and after our outreach campaign.

Lastly, we believe our education and promotion succeeded because we planned for sustainability. Our evaluations of efficiency kept sustainability in focus. The resources of our grant were temporary and sustained outreach would have to be maintained by state and local resources. We continue to plan for this transition: currently we are modifying our presentation strategy to allow delivery by local EI program staff. This modification may result in more, but shorter meetings scheduled over a longer period of time, perhaps targeting a small subset of PCPs each year. The enhanced communication strategy has proved its sustainability: EI programs in the second community continue to send the enhanced communications in modified form, at an impressive rate (245 sent during the seven months following implementation). In fact, EI programs have expanded the strategy by sending communications to all professionals involved with the children they serve. Another aspect of sustainability is generalizability. This concern led us to move from one community to a different one to implement revised strategies. Differences between individual PCPs were greater than differences between communities, justifying plans for statewide replication.

Targeting a difficult audience, we relied on evidence, expert advice, temporary resources, passion and persistence to demonstrate sustainable, effective and efficient outreach. The evolution of our outreach as described here should inspire cautious optimism in others planning similar education and promotion campaigns.

Figure 6
If You Help One Child, It's Worth Your Effort!

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