FINAL REPORT AND ABSTRACT

HIGHER EDUCATION CURRICULA FOR INTEGRATED SERVICE PROVIDERS

Project Number: MCJ415093
Project Period: 7-1-94 through 6-30-00

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ABSTRACT

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Grantee: Teaching Research Division, Western Oregon University

Address: 345 N. Monmouth Ave, Monmouth, Oregon 97361

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Project Period: 7-1-94 through 6-0-00

Total Amount of Grant Awarded: $676,269

Our project, designed to expand the concepts encompassed in the utilization of an interprofessional approach to service delivery for children with special health care needs, has evolved considerably over the last 6 years. Our overall mission to find, develop, strengthen and disseminate best practices that include shared didactic and practicum experiences across the fields of health, education and social work has not changed but our specific strategies have. We thought there would be a large number of Universities where a shared curriculum was already in place. We were wrong. We thought we could find a lot of community sites where the three professions worked together as equal partners. Not easy to find. We decided any model site should have both the academic training and the practicum site already developed and only needing polish for replication. The field became small for site selection..

Even with all of the initial distractions of not being able to find Aperfect@ models, we have not changed our opinion about what interprofessional training Aought@ to be and why. Most of the more difficult problems that children face are (1) medical conditions that present unusual

challenges, or (2) home and family situations that are dysfunctional, or (3) cognitive or behavioral problems that interfere with learning , and occasionally all three occur at the same time. The traditional professions that try to solve these problems are health, social work and education. Most of the time they apply the knowledge of their discipline to that part of the problem that coincides with their training. It seems to make sense to attack the problem from as many angles as possible. Combining the knowledge and expertise, from at least these three professions, to focus on the development of a solution should create more effective results. In order to train people to be able to do this effectively, there are two major strategies. The first is at the academic level of providing curriculum material to the students that explains the uniqueness and capabilities of the different disciplines and at the same time offer information about how the various types of expertise can best be utilized by working together. The second type of training is at the clinical or practicum site where interprofessional workings can be modeled and practiced. This approach is also effective with the post graduate who would like to change the way they operate in their day to day job.

We finally found three sites which met most of these criteria and developed subcontracts with them to refine their approaches to interprofessional training. Each of them is different from the other and they all have a unique population focus. Originally one of the projects was initiated by a School of Social Work (USC) (now at Pediatric and Family Medical Center), another from a Medical School (Univ of New Mexico), and the other from a School of Education (Cal State Univ-Fresno). All three are now operational and operate as models. Many materials and products were developed and disseminated. Examples are: curricula, teaching modules, descriptions of models, definitions, evaluation instrument and position papers.

FINAL REPORT NARRATIVE

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I. PURPOSE OF THE PROJECT

At risk children and youth and their families are frequently served by a variety of health, educational and social service agencies with little or no coordination occurring between them. There is frequent overlap of services, duplication of efforts, and large gaps that do not fill the family needs. The same condition is also true of university training programs as they tend to train their professionals within particular departments and in isolation from other professions.

In order to improve family-centered, integrated services at the local level, this project assisted colleges and universities as well as professionals already in the field to develop models of interprofessional training and to increase the knowledge and skills that would assist them to effect locally integrated services for families with at-risk children and youth.

A major component of the grant was to establish training and educational locations for both pre-service students and professionals in the field. Selected sites must have resources that include access to both clinical practice sites as well as academic sites. Administrators and faculty in the three major areas of interest: education, social work and medicine, must be willing to establish the needed training programs at the university and at the local community sites as

well.

The results of this effort has been a workforce of trained professionals that will be able to reach across the many disciplines in the areas of education, social work, and medicine in order to assist the families of children and youth at risk. The training models developed for achieving integrated services are designed for replication in other institutions of higher education or in clinical settings serving children with special health care needs.

Our project, funded by the Maternal and Child Health Bureau, Division of Children with Special Health Care Needs, evolved considerably over the last 6 years. Our overall mission to find, develop, strengthen and disseminate best practices that include shared didactic and practicum experiences across the fields of health, education and social work did not change but our specific strategies did. We thought there would be a large number of Universities where a shared curriculum was already in place. We were wrong. We thought we could find a lot of community sites where the three professions worked together as equal partners. Not easy to find. We decided any model site should have both the academic training and the practicum site already developed and only needing polish for replication. The field became small for site selection.

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many angles as possible. Combining the knowledge and expertise, from at least these three professions, to focus on the development of a solution should create more effective results. In order to train people to be able to do this effectively, there are two major strategies. The first is at the academic level of providing curriculum material to the students that explains the uniqueness and capabilities of the different disciplines and at the same time offer information about how the various types of expertise can best be utilized by working together. The second type of training is at the clinical or practicum site where interprofessional workings can be modeled and practiced. This approach is also effective with the post graduate who would like to change the way they operate in their day to day job.

We finally found three sites which met most of these criteria and developed subcontracts with them to refine their approaches to interprofessional training. Each of them is different from the other and they all have a unique population focus. Originally one of the projects was initiated by a School of Social Work (USC) (now at Pediatric and Family Medical Center), another from a Medical School (Univ of New Mexico), and the other from a School of Education (Cal State Univ-Fresno).

II. GOALS AND OBJECTIVES

In the original proposal there were 8 objectives. The following is a description of their status:

- **Objective 1. Identify community based projects that have been successful in integrating services that benefit at risk families, children and youth.**

This objective was successfully completed and a contractual arrangement was made with the three model sites, California State University - Fresno, University of New Mexico and the University of Southern California. The USC subcontract was not completely fulfilled and that project was moved to the Pediatric and Family Medical Center where the staff have completed

the unfinished tasks and expanded the model.

- **Objective 2. Identify the knowledge and skills that staff within these projects possess in order to implement locally integrated services** (see NCLIE report in results section)

This objective has been completed and an instrument was developed that will allow others to measure their status against these standards. (See assessment instrument in results section)

- **Objective 3. Within the National Commission on Leadership in Interprofessional Education identify and select four to six colleges and universities that agree to develop curricula and training programs for integrated services that are based on the best practices found in the community.**

The Commission was successful in getting several groups of educators, social workers and physicians to design a set of minimum core competencies for interprofessional training programs. In addition they were able to identify the specific barriers in developing such a program. In the final report from the Commission (see attachment) they have produced eleven major recommendations for any institution considering the development of an interprofessional training program

- **Objective 4. Develop individual support plans for each of the colleges and universities that will assist them to develop and implement an integrated service training program.**

All plans have been completed, including an additional support that has been attracted that allows them to maximize their web sites. Many of the requests for training come from communities and training organizations that can not come to the original site for training. Using distance education became a priority and we have developed the capability of each of the sites to deliver information off site. This is also true for making training available for students from other departments within the university.

- **Objective 5. Provide support as needed and specified in the individual support plan to**

each of the colleges and universities to assist them to develop and implement an integrated service training program.

This objective has been completed and each of the sites has approved courses. Developing programs in other sites is now underway and assisted by the diagnostic/assessment tool that can be used to determine where and what kind of training is needed. This is one of the most important tasks that was conducted during the no cost extension period.

! **Objective 6. Evaluate the effectiveness of the process of assistance given to the colleges and universities, and encourage them to participate in evaluating the effectiveness of their curricula and training program.**

The completion of the evaluation instrument allowed the project to finish this task. All of the sites have used the instrument and gathered information at their own sites. They are now ready to gather data and assess the effectiveness at replication locations.

! **Objective 7. Prepare articles, newsletters, and a monograph that describes the concept of integrated services within the community, the best practices within these projects, the curricula and training programs developed at the colleges and universities, and the processes for developing such programs.**

This has been completed with many additional presentations at national meetings. The subcontract work with the National Commission has been completed and those tasks are finished. All models are described with either written materials, videos or electronic transmission. The products from this objective can be found in the publications/products section of this report.

! **Objective 8. Prepare an annotated bibliography on integrated service programs and higher education interprofessional education and research programs to support them.**

This has been completed. We have produced 3 volumes of the bibliography and have

disseminated them widely. The National Commission has disseminated materials to all of it=s members. All of the materials can be found in the publications/products section of this proposal and in the appendices.

III. METHODOLOGY

The general methodology was concentrated on locating and working with sites that could become models for others to replicate. There were many other approaches such as developing bibliographies, making presentations, writing position papers and designing evaluation instruments and they are discussed in other sections this report. The focus here is on identifying sites that could become a part of this project and assist in achieving the overall goals of developing model programs that could be used by others. One of the first steps was to establish a set of criteria that could be used to select the most promising sites that were already starting to develop models with all of the prerequisite participating team members. To that end, the following criteria were established by the staff working with sites and the Commission.

The following components should be present in an exemplary program:

1. Identifiable components that include health, education, and social services practitioners.
2. A mission and/or philosophy statement that indicates the focus of the overall program is on the child and the family.
3. Clearly defined population(s) that the site serves both by age and need.
4. A project description that clearly describes the services that the site offers.
5. An administrative structure exists that promotes collaboration and coordination across programs and agencies.
6. A well designed system that assists children and families in obtaining the service and assessment they need, and has established criteria for determining when the services are no longer needed.

7. Systematic case management or service coordination is available for the child and family.
8. A system for flexible funding, i.e., that allows money to be moved across agencies or across political jurisdictions or both, so as to be used for the child and the family.
9. Job descriptions and role definitions for staff that describe the "interprofessional" nature of their required activities.
10. A system of program evaluation that will yield data on the processes within the project and the outcomes for children and families.

In addition to these criteria, it was necessary to add some requirements that were specific to institutions of higher education to insure their participation. The following are the criteria and the process by which institutions of higher education are selected to participate in the Interprofessional Project:

1. There is present at the institution a school of medicine or nursing.
2. Institutions of higher education must demonstrate an existing commitment to interprofessional training.
3. Institution officials must have an existing and ongoing relationship with integrated service programs in a community or communities in the vicinity of the institution. (This participation can be demonstrated in a variety of ways (e.g., use of the service site as a practicum site, program planning and/or evaluation, membership on a board, etc.)
4. Within proximity of the institution there are practicum sites for students to participate in community based integrated service efforts. Practicum sites must agree, and have the capacity to provide appropriate interprofessional training experiences to university students. These sites must demonstrate the principles identified in the analysis of community programs conducted by the project. Letters of agreement to participate should be available from the practicum sites.

5. There must be a formal letter of commitment from the dean of the school of medicine, or nursing together with a letter of commitment from at least one other dean (preferably two) of education, or social work. All other related departments will be encouraged to participate.
6. Deans of participating schools or departments must participate in the development of a formal technical assistance plan that consists of:
    a. the specification of objectives;
    b. activities that will be carried out to achieve the objectives;
    c. identification of those responsible for the accomplishment of the activities;
    d. time line for accomplishment of each activity;
    e. evaluation of each objective and the overall project;
    f. designation of resource allocation by the project and the institution.

The bottom line for participation should be:

1. In x amount of years there will be curricular changes incorporating best practices from community programs.
2. graduates will be able to operate successfully in integrated services jobs or agencies.

Seventy-two agencies were initially identified across the country as demonstrating the qualities sought in integrated services programs. Forty-two of these groups responded to a survey regarding their programs. All provided information about their operations, including job descriptions and evaluation data. A final report was written and is available analyzing the information received. (Submitted in an earlier report) A final set of discussions were held with three colleges and universities and they were selected as locations for developing new integrated services curricula. The three model sites are described in detail in the results/outcomes section of this report. The narrative description of the projects details the methods they used, progress

made, products and achievements.

IV. EVALUATION

The evaluation plan is presented by objective. More specific evaluative information is available on each project in the results/outcomes section.

Objective 1. Identify community based projects that have been successful in integrating services that benefit at risk families, children, and youth.

Within the first year of the project, a complete review of the literature was conducted to identify existing community based integrated services. In addition, during that time, leaders throughout the country were contacted by letter, telephone, and fax to ascertain the existence of additional models. All of this information was compiled and made available in a published report describing the features of each of the models.

Objective 2. Identify the knowledge and skills that staff within these projects possess in order to implement locally integrated services.

This activity resulted in the development of the items and questions included in the Interprofessional Assessment Instrument. It is now possible to measure the level of engagement in interprofessional activities.

Objective 3. With the National Commission on Leadership in Interprofessional Education identify and select four to six colleges and universities that will agree to develop curricula and training programs for integrated services that are based on the best practices found in the community.

The Commission was a part of the initial selection process selection process because we were desirous of obtaining information whether the process we were using for site selection was

useful to the colleges and universities. Final participants at the selected sites were informed about the project and what the project could offer. The sites were asked to provide us a satisfaction rating regarding: (a) the clarity of the information presented and (b) the follow up response to concerns of the sites by the project staff.

As the selection process continued, participants were asked to evaluate each step of the process as to its usefulness to them. Data obtained from these satisfaction ratings allowed us to alter the process used for subsequent college and university selections. The "bottom line" evaluation of this objective is the number of universities that agreed to participate and make appropriate curricular changes.

Objective 4. Develop individual support plans for each of the colleges and universities that will assist them to develop and implement an integrated service training program.

Satisfaction ratings were obtained from the participants in the process. These satisfaction ratings evaluated the process of developing the individual support plan and the plan itself. The feedback from these ratings allowed us to alter the process for future participants.

Objective 5. Provide support as needed and as specified in the individual support plan to each of the colleges and universities to assist them to develop and implement an integrated services training program.

Satisfactions ratings were obtained from participants regarding each activity of the support plan. Since many of the activities were used with more than one college, the feedback received from the participants allowed us to modify the activity for future participants.

Each individual plan that was developed with a college or university had as part of its composition an evaluation plan that the higher education institution must agree to before any

technical assistance or support was given to them. Thus each support activity was individually evaluated.

Objective 6. Evaluate the effectiveness of the process of assistance given to the colleges and universities and encourage the colleges and universities to participate in evaluating the effectiveness of their curricula and training programs.

The evaluation that is unique to this objective is the attempt to determine how effective the established curricula and training programs are. We recognized that this type of evaluation could only be conducted if the colleges and universities choose to participate. Every effort was made to ensure their participation from the time that they became involved with this project. We proposed the following: (a) A satisfaction rating by students after completion of courses that focus on integrated service delivery; (b) A follow-up survey of graduates to determine if they have been employed in situations where they can use the material they learned about integrated service delivery; and 8 for those working in integrated service delivery projects a survey to determine the relevance of the training program with their current employment. In addition we were able to use the evaluation instrument that we developed which was designed to show level of interprofessional engagement. The instrument and the findings are in the results/outcomes section.

Objective 7. Prepare articles, newsletters, and a monograph that describe the concepts of integrated services within the community, the best practices within these local projects, the curricula and training programs developed at the colleges and universities, and the process for developing such training programs.

The evaluation of this objective is primarily summative in that the completion of the

specified documents that were accomplished in accordance with the time lines found within this proposal. In addition, however, reader satisfaction surveys (see Appendix A) were taken for both the newsletters and the monograph.

Objective 8. Prepare an annotated bibliography on integrated service programs and higher education interprofessional education and research programs to support them.

The evaluation of this objective was primarily summative in that the bibliography was completed in accordance with the time lines found within the original proposal. However, a reader satisfaction survey was also conducted to ascertain the usefulness of the document.

Regional and National Significance

As demonstrated by the review of the literature, there is a growing awareness around the country that it is no longer sufficient to provide services in a piecemeal fashion to children and youth who require the services of multiple agencies and professions. Included in this population of young people are those in their early childhood years who are disabled or health impaired or who are at risk of future school failure, substance abuse, or antisocial behaviors. Also included are those children and youth who are severely emotionally disturbed, substance abusers, school drop outs, behavior disordered, adjudicated, or who are teenage mothers and fathers. Additional candidates included are the vast numbers of children and youth who are sexually, physically, and psychologically abused. The families of all these children and youth were the target population of this proposal.

Because the above populations require multiple services, it is logical that those services be coordinated or integrated. Many communities around the country have begun the process of providing integrated services. In only few notable cases have those services been developed to a

sophisticated degree and have evaluation data that are available to demonstrate the effectiveness of integrated service programs.

However, colleges and universities have not in general kept pace with this trend and they are still producing graduates who have knowledge and skills that are focused in one discipline area. The problem is even more dramatic when you examine the clinical sites that serve special health care needs children. As you will see in the results section, it is rare indeed to find physicians working closely with educators and social workers to develop an intervention program that was mutually designed by the three professions.

V. RESULTS/OUTCOMES

This section will summarize all of the activities, outcomes and procedures used in the major aspects of this project. The first three descriptions are from the 3 demonstration sites that have been developed into models.

Interprofessional Collaboration Project

California State University, Fresno

Names of Major Players

School of Education and Human Development

School of Health and Human Services

School of Natural Sciences

School of Agricultural Sciences and Technology

Faculty members from four schools, representing various university departments (Nursing, Psychology, Early Childhood Education, Teacher Education, Social Work Education, Physical Therapy, Health Science, Recreation Administration and Leisure Studies, Rehabilitation Counseling, Counselor Education and Nutrition and Food Sciences) at California State

University, Fresno are actively involved in the planning and implementation of an interprofessional collaboration project in support of professional preparation of teachers, health and human service providers.

In its sixth year, the project model is grounded in current research that supports the need to prepare professionals for roles that foster integrated delivery systems in schools, community settings and in other human service agencies.

Mission Statement and Philosophy

The practice of interprofessional collaboration is identified as a critical skill for educators, health professionals and social service providers, especially with the increasing complexity of our educational, health and social service networks. The mission of our project is to prepare professionals who can work collaboratively and integrate their expertise with other human service providers to more effectively serve children and families.

Major Project Objectives

1. Provide professional development to enhance the knowledge and skills of university faculty in understanding and working interprofessionally and develop linkages with multi-service agencies in the community.
2. Implement the Interprofessional curricular modules developed by faculty and teach content in existing courses in various disciplines.
3. Provide a curriculum of academic study and practical training leading to a Certificate of Advanced Study in Interprofessional Collaboration (CASIC) for students enrolled in professional preparation programs. (e.g. Nursing, Psychology, Early Childhood Education, Teacher Education, Social Work Education, Physical Therapy, Health Science, Recreation Administration and Leisure Studies, Rehabilitation Counseling, Counselor Education and Nutrition and Food Sciences).In addition the CASIC program

will be offered to personnel working in multi-service agencies as requested.

Population Focus

This project focuses primarily on the education of graduate students who will enter education, health and human service professions in an impoverished rural, agricultural area in the San Joaquin Valley of central California. The population that graduate students will work with in their practicum is diverse ethnically and of low socio-- economic background, with over 50% of children living below poverty level.

Model Design and Operation

The project model has incorporated the following activities:

Annual Interdisciplinary Conference. An interdisciplinary university-based conference in Interprofessional Collaboration has been offered in Spring 1996, Fall,1996, Fall 1997, Fall 1998 and Fall 99 to prepare faculty, community practitioners and graduate students from the education, social work, nursing, psychology, physical therapy and counselor education programs to provide services using integrated service delivery models.

Curriculum Modules Publication. Faculty developed six curricular modules in 1996-97 specifically designed to prepare pre-service candidates with knowledge and skills necessary to work in integrated service settings. The modules are also designed to be used by trainers in agencies, college classrooms and extended education workshops. These modules have been refined and continue to be utilized in the program.

Interdisciplinary Student Internships. Teams of students from various disciplines apply and are recommended to participate in experiences where multi disciplinary professional teams work with children and families. Field placement internships were first piloted in Spring 1996 and modifications were made the following semester. The modifications were made in the area of supervision by providing more time at the sites. Teams of students were closely supervised in

summer of 1997 and Spring 98 in several community agencies and school settings with students submitting daily journals and participating in debriefing seminars. These practicums have served as the pilot program for the development of the practicum component of the Certificate program.

Speaker Forums/Seminars. Faculty are involved in speaker forums-workshops in agencies, clinics and schools at the local level. In addition, faculty teams present at national and state conferences. A two day professional development in-service for university faculty at the University of Western Kentucky was provided by the Interprofessional Collaboration Project team in Spring 1998 in Bowling Green. Faculty shared their expertise with Education, Social Work, and Nursing faculty at UWK.

Writing Teams. Faculty and agency personnel are beginning to be involved in writing for publication (action research) related to interprofessional collaboration issues.

Institutionalization. A post-baccalaureate Certificate of Advanced Study in Interprofessional Collaboration (15 units-5 courses) was approved through all University channels in the Fall of 1998 and was implemented in Spring, 1999.

Products and Materials

Modules. Six modules were developed for use in university courses and community-based inservice training. Module topics include: Defining Interprofessional Collaboration; The Art of Listening and mediating Conflict; Interprofessional Team Building; Interprofessional Work with Children and Families; Multi cultural Issues in the Delivery of Services and It takes a Healthy Community to Raise a Child.

Certificate Program in Interprofessional Collaboration (CASIC). The certificate program was designed to augment existing graduate programs for professional preparation in education, health and human service professions. The general purposes of this certificate program are:

1. To introduce practice strategies and theoretical foundations for team building and

interprofessional collaboration.

2. To improve outcomes for recipients of health, education and social services through service delivery, education and training.

Students may simultaneously enroll in the certificate program while completing their professional course of study. In most professional programs, they may use courses from the certificate program toward elective credit in their program. Additionally, for many graduate students, 6-units of elective course work toward the certificate program may be applied from courses offered in their field of specialization. The three core courses in the program encompass the following interprofessional education content:

*IPC 201: Interprofessional Collaboration Foundations (3 units). Course Description: Examination of beliefs and biases affecting professionalization and discipline specific culture. Group process and team building skills, including active listening, conflict mediation and cultural competence. Principles of integrated service delivery models of team practice in a multi-cultural and interdisciplinary context.

*IPC 202: Integrated Service Delivery Models (3 units). Course Description: Analysis of local community health, education and economic challenges. Issues in working with families and community including access and equality. Organizational development and systems to build inter-agency partnerships for collaborative practice. Measuring outcomes of integrated service delivery programs.

*IPC 203: Practicum in Interprofessional Collaboration (3 units). Course Description: 30 hours of supervised practice in a school-based site or community agency using an integrated service delivery model. This will be supplemented by a weekly 2-hour seminar on campus, which provides a forum for reflection, analysis and synthesis of experiences and observations.

Video. A 20-minute promotional video has been produced to illustrate project

design and aid in dissemination efforts.

Lessons Learned

1. Faculty involvement in and support of project design is critical to development of curriculum and involvement of students.
2. University administrators have provided key support to assist in institutionalization and to offer in-kind services and facilities.
3. Strong community liaisons are essential to develop and maintain relevancy in the constantly changing agency, health care and social service structure.
4. Institutionalization is facilitated by alignment of the interprofessional program with the educational mission of the departments, schools and university and integration of curriculum design with existing professional preparation programs.

Future Directions

1. The CASIC program will be fully implemented at California State University, Fresno. Strong recruitment efforts are anticipated for the 1999-2000 academic year.
2. Linkages and promotional efforts began in 1999 to encourage service agencies to offer professional development courses (CASIC) to their personnel.
3. Plans will be formalized to include the University of California Family Practice and Pediatric residents in interprofessional teams to work with the CSU, Fresno CASIC program graduate student interns at selected school sites where multi-services are being provided.
4. Faculty will continue to work on research, writing and publications.
5. Efforts will be made to develop a campus-based Center for Interprofessional Collaboration that will provide training and services to children and families in Central California.

For more information contact: Dr. Kathleen Curtis, Program Coordinator and associate Professor, School of Health and Human Services, California State University, Fresno,

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Inter-Professional Initiative Pediatric and Family Medical Center

University of Southern California

Names of Major Players

Stephanie Taylor-Dinwiddie, Ph.D., Program Director

Jacquelyn McCroskey, DSW, University of Southern California

Carl E. Coan, President and CEO, Pediatric & Family Medical Center

Mission Statement and Philosophy

For decades policy makers, legislators, health and human service practitioners, and leaders of public and private sector organizations have been calling for solutions to the complex social problems caused by urban poverty in America. For no group are the challenges greater than for the most vulnerable in those communities, the children of poor families. The Inter-Professional Initiative is a collaboration of service delivery institutions and University of Southern California academic programs oriented toward effecting change in individuals, organizations and the service delivery system. Its purpose is to improve outcomes for children and families through better service delivery, education and training, based on new theoretical foundations and innovative practice strategies.

Guiding Principles

1 . The measure of a professional should be high-quality service delivery that leads to improved outcomes for clients.
2. The university-community partnership should be characterized by trust, mutual support, team synergy and a shared commitment to a vision.
3. Community perceptions of need and strength should guide service professionals, who can work with community members to help shape realistic shared expectations and outcomes.

4. Preparation should explicitly recognize the interactive and mutually supportive roles of multiple professions in solving complex problems, and the importance of developing cognizant professionals able to access and value one another's skills.
5. The University and its community-based partners should share common agendas including: creating environments that allow for and support growth and change; devising management and program structures that support staff and customers; bringing policy and practice in line with changing family and community needs; and providing professionals with pre and in-service training that supports work in changing environments.
6. Concurrent improvement of research and service delivery should support development of theoretical approaches and effective practice. Partnerships between community-based service delivery institutions and universities should produce practical laboratories for learning; such partnerships should lead to improved community-based preparation, as well as to improved service delivery.
7. Systematic evaluation should focus on the processes and impacts of collaboration on students, community-based agencies, universities, families and children; research should focus on knowledge building to support practice and policy decisions.

Population Focus

For the first five years of the project, the primary focus has been on the professional development of graduate students, as they prepared to enter their respective professions. Based on our multi-year experience with the graduate program, a faculty working group was convened in 1996 to develop an interdisciplinary minor, "Children and Families in Urban America," which was offered for the first time during the Fall 1999 academic semester. Building on that experience, our focus has expanded to include undergraduate students in the Initiative experience.

In addition to an expansion of potential student participation, the Initiative has recently moved from the University of Southern California to one of its sites, a medical clinic in downtown Los Angeles, the Pediatric & Family Medical Center, serving over 11,000 children and their families, living at or below poverty level, on an annual basis. The move has created an opportunity to provide both continued interdisciplinary preservice training for student interns recruited from several local universities (USC, UCLA and Cal State Los Angeles); as well as a new opportunity to provide inservice interdisciplinary training and support for clinic and partner agency professional staffs.

Model Design and Operation

The day-to day operations of the Inter-Professional Initiative were the responsibility of a coordinating team consisting of the Executive Director, the Principal Investigator, the Field Instructor, and the Senior Consultant. The governing structure was composed of two different decision making bodies. The Implementation Council consisted of two representatives from each participating site, faculty and/or deans from the various academic units, and the IPI staff The council was responsible for the general oversight of the operation and the ongoing review of IPI's goals and objectives. The Executive Committee included site representatives, faculty, the Deans of the Schools of Education and Social Work, the Senior Consultant, and the Executive Director. This committee was responsible for policy making, review and revision. It was also responsible for taking leadership in fundraising tasks.

In its initial design, the primary activities comprising IPI took place in the fall semester. Graduate student interns were recruited from a variety of academic units (e.g., clinical psychology, dentistry, education, geography, medicine, nursing, public administration, sociology, and social work). Those selected to participate in the program made a commitment to serve an internship at one of the operational sites (Foshay Learning Center, Hope Street Family

Center, USC Neighborhood Resource Center, Norwood Elementary School or the Pediatric & family Medical Center) as a member of an interdisciplinary team and to attend a bi-weekly seminar. Participants in this seminar included the student interns, the site preceptors (i.e., representatives from the sites who were designated as the liaisons between IPI and the site organization), the faculty mentors (i.e., faculty from the participating academic units, each of whom is assigned to work with the team at one of the operational sites), and the IPI staff. The seminar was structured around a number of activities designed to improve participants' ability to function in an interprofessional setting. Participants received an orientation regarding each of the operational sites; they were exposed to theoretical material underpinning interdisciplinary collaborative practice. They engaged in discussions, role plays, and other exercises designed to enhance their understanding and skills relevant to practice in these settings, and they spent time in their site teams discussing practical issues relevant to working together at these sites. At the end of the semester, each team was required to make a presentation to the class regarding their progress and experiences during the semester. While the seminar was a fundamental aspect of the Initiative, the internships at the site organizations provided an exciting context within which students received "hands-on" experience working with students from other disciplines and delivering services to inner-city children and their families in and inter-professional setting.

The redesign of the program, currently in progress, consists of two components. Students will continue to be recruited from the University of Southern California to participate in interprofessional team work in a medical setting, at the Pediatric & Family Medical Center; and we have expanded our recruitment base to include two other local universities, UCLA and California State University at Los Angeles. The second component focuses on the inservice training of professionals in institutions and agencies serving children and their families, to support them in their efforts to communicate and function in an interdisciplinary manner.

Products and Materials

Video Tapes of Student Experiences: * 20 Minutes; * 50 Minutes

Undergraduate Minor

Teaching Modules

Lessons Learned

After six years of operation, IPI stakeholders clearly see the benefits of interdisciplinary training and service delivery and are knowledgeable of the elements of a successful program. But the initiative, as it was staffed and structured while at the University was too expensive and energy-depleting to be considered a model that can be easily replicated elsewhere. The broad support base necessary to continue the model (site preceptors, faculty mentors, field instructor and executive director) is not fiscally feasible in most higher education institutions and service environments.

Rather than focus solely on institutionalizing IPI within the university, we have found that the Initiative could, and should be institutionalized in community - among organizations and groups interested in and/or committed to interprofessional work. This means working with working with human service organizations to help create service delivery models with defined roles for students specific to their needs, which integrate students into the natural flow of organizational activities and services, and which incorporate student involvement in their ongoing way of work.

Among the many lessons that IPI stakeholders have learned, of critical importance are the realizations that (1) models of interprofessional training and service delivery must be tailored to the specific service environment (e.g., school or clinic) and (2) interprofessional teams further the development of multiple models by focusing on the specific needs of each service environment. We learned, for example, that it was not feasible to build capacity in a

comprehensive manner across all community sites. This meant that we had to place limits on the scope of our activities and to help organizations assume a leadership role in the development of models appropriate to their needs. Some community sites may not demonstrate "best collaborative practices," but IPI has been able to provide the support to help them craft roles and activities for students, which help move them towards the ideal. For example, in one site organization, IPI students were intensively involved in providing staff training and development services in response to a critical incident for which staff were unprepared. Helping each site to develop a prototype which carves out significant student involvement is key.

From the university side of the equation, addressing barriers to interprofessional education has been a major challenge. However, IPI has garnered significant recognition from faculty, deans and administrators throughout the university. The publication of the book on interprofessional education last summer represented a cornerstone accomplishment. Further, IPI faculty are now recognized nationally as experts in the field, receiving many requests to share information, to participate on professional bodies and to present at conferences.

The project, in its initial designed came to a close at the end of the summer, and is currently being redesigned for implementation at the Pediatric & Family Medical Center, an IPI site for its six operational years. The redesign and implementation of the Inter-Professional Initiative is part of its major new initiative, *Strong FamilieslHealthy Children,* directed by Stephanie Taylor-Dinwiddie, Ph.D., former executive director of the USC Inter-Professional Initiative. During years four and five of the project, a significant focus was placed upon the inclusion of medical professionals and pediatric interns on the PFMC interdisciplinary team. This provided significant insight into the role of the doctor in the interdisciplinary care of children, and the importance of working in true partnership with the families of the children being treated. It was most exciting for the students to work in a team setting in which each discipline was valued and accepted for

its particular expertise, rather than value being placed upon your position on a real or imagined interdisciplinary continuum.

During the past six years, each of us has changed in significant ways. Faculty and administrators have gained significant insights into working with children and partnering with the community residents and the community-based organizations that surround the university. The students have learned to respectfully question knowledge, leadership and their potential professional identities, and our community site partners have developed trust in the university that they, as practitioners "in the trenches" are important, critical voices who can help lead in the preparation of superior professionals for the new millennium.

Universities Networked for Interdisciplinary Training and Education Project

University of New Mexico

Major Faculty Contributors

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Rose Hessmiller, PhD, UNM School of Medicine, and developer of start-up company

Mission Statement

The UNITE Project will prepare students and professionals from the fields of medicine, social work education and law to deliver interdisciplinary comprehensive community-based, family-focused care to families affected by prenatal alcohol and other drug use.

Philosophy

By participating in the UNITE Project seminars utilizing a case-based tutorial model combined with clinical practicum experiences in an interdisciplinary outpatient pediatric specialty clinic service delivery model demonstrated by the Los Pasos Program, students and professionals receiving training will receive the information and experiences to serve families affected by prenatal alcohol and drug use. The model is designed to train students from the graduate professional schools of medicine, education, social work, and law, and providers from those disciplines.

Through the existing sites in the facilities of the University of New Mexico Health Sciences Center, students and professionals will participate in Los Pasos Program interdisciplinary clinics and meetings. In the UNITE Project seminars, participants will acquire the information to understand the contributions of the fields of medicine, education, social work, law, and community planning to provision of exemplary services to children and families affected by prenatal alcohol and drug use. Organizing concepts that participants will learn include principles of child development, Solution-Focused therapy as an innovative approach to behavioral and substance use counseling, and mediation in family law and dispute resolution in community settings.

Technological innovations have been introduced as models for distance learning. These include a web site (http: / / star.unm.edu /unite/) describing the project with links to the course outline, class notes supporting the seminars, case studies for discussion, descriptions of participants, interactions using a designated chat room (extended office hours), and access points to powerful search engine software now in common use for searches on the World-Wide Web. Initial attempts have been made to provide orientation and training to new program staff for grants in the University of New Mexico Health Sciences Center. An exchange of site visits have been completed by UNITE Project faculty and the leadership of the Casey Family Partners; Spokane, a program providing interdisciplinary services to families affected by child abuse and neglect. Preliminary discussions are ongoing with programs, at Emory University and the University of Missouri.

Population Focus

The UNITE Project and the practicum experiences organized in the Los Pasos Program concentrates on health, education, legal, and social issues affecting families with children from birth to age three. These families have in common the use of alcohol and drugs prenatally or

while parenting. The families served live throughout the three counties that make up the Greater Albuquerque Metropolitan area.

The Los Pasos program, treating families with drug-exposed infants in the Albuquerque area, is housed within the University Hospital (the major hospital of the University of New Mexico Health Sciences Center). The program serves more than 140 children and their families each year. Approximately 50% of clients are Hispanic, 30% European American, 10% Native American and 10% African American.

Model Design and Operation

The UNITE Project brought together key faculty from the disciplines of medicine, education, law, and social work to employ best practices in the training of professional students. As a group, the faculty agreed that the students would learn from cases that illustrated the interdisciplinary complexity of the situations confronting families affected by prenatal substance or alcohol use. From the lessons learned in the case study, the faculty further held the expectation that the students would employ their understanding of the case material to their work with families served by the *Los Pasos* Program.

Through the Los Pasos Program, an interdisciplinary outpatient clinic has been held on Monday afternoons known as El Viaje Clinic (the Journey). This clinic is located in the Pediatric Specialty Clinic area of the University of New Mexico Health Sciences Center. At the clinic, families are seen by appointment by pediatric medicine, social work, and early intervention educational specialists. Students from the medical school, the pediatric and family medicine residency programs, social work graduate programs, and family studies programs at the College of Education have participated in these clinics. In addition, newly hired members of the clinical teams receive training at the clinics. By completion of their clinic visit, the family leaves with information about their child's medical needs and a plan for further care, developmental progress

information and a plan for assisting the child's acquisition of more skills, and a plan made in conjunction with their social services coordinator for additional family support. The clinical team meets at the end of the clinic and discusses the impressions, diagnoses, and plans created with the families. These discussions are recorded and made available to other Los Pasos team members that may have contact with each family to improve coordination of effort and communication.

The Los Pasos program also holds two weekly meetings to discuss and coordinate the team's efforts. At the Clinical Review meeting, there is an opportunity for the full clinical team of the Los Pasos Program to learn about newly enrolled or referred families, discuss the possible types of interventions that might aid the family, and assign specific team members to coordinate services for the family. Families experiencing major changes in their life conditions will be discussed in review by the assembled team. Students from law, medicine, social work and education have attended these meetings. These times also bring in members of community agencies also working with families adding to the possible coordination of efforts from the University and the community.

At the second meeting, the Service Delivery Plan meeting, the social service coordinator leads a quarterly report on the progress of specific families. Members of the developmental early intervention team and the medical team attend to add their information about the child and family. By the end of the discussion, the team will be informed about the level of the family's engagement with the Los Pasos Program, their goals for the next quarter, and the numbers of contacts the team projects with the family.

The following students have received training through the UNITE Project and the Los Pasos Program practicum: 2 Medical students (1/2 day/ week, 1 semester), 1 Pediatric Intern (1/2 day/week, 1 year as a continuity clinic experience), I Graduate Student in Social Work (3

days/week; 1 semester), 8 Graduate Students from Law per year (4 per semester contributing 1/2 day per week per semester of legal assistance), and 2 early intervention students from education observed clinics several times during one semester. Through its seminars and didactic teaching, the following students have interacted with the UNITE Project: 1-day workshop for Health Sciences Center including poster session as part of the Interdisciplinary Awareness Day for the Health Sciences Center that brought approximately 10 students from varied disciplines into discussions with UNITE Project presenters; Interdisciplinary training for new staff for Los Pasos and SELECTT programs (6 hours/day, 2 weeks) that included 2 Case Managers (practicing professionals from Early Childhood), 5 practicing Social Workers, 1 Nurse, 2 practicing Developmental Specialists, 4 practicing Case Managers, and 1 practicing Administrative Assistant; and the UNITE Interdisciplinary curriculum for graduate students and Los Pasos program staff (2 hours/day, 8 weeks) that involved I graduate social work student from New Mexico State University, 2 practicing Developmental Specialists, 2 practicing Social Workers, 2 practicing Case Managers, and I graduate nurse student.

Products and Materials

Publications:

J. Michael Norwood, Professor of Law. "An Interdisciplinary Model for Clinical Legal Education and Legal Services Delivery." *Service Bridges, Vol. 3, No. 2.*

James R. Richardson, Interim Dean and Associate Professor of Planning and Architecture, School of Architecture and Planning, and Andrew Hsi, MD, MPH. "Mediation and Alternative Dispute Resolution in Transdisciplinary Education" *Service Bridges, Vol. 3, No. 1.*

Case materials including "Crystal W@ , ALianna Paul", "Case of April and Molly", "Case of Professional Person with Alcohol Problem and Therapists."

Distance education:

Web site established, (http: star.unm.edu / unite/) case-study training manual being developed. Electronic dialogue on web site for Project UNITE in conjunction with facilitation by Rose Hessmiller, Ph.D.

Lessons Learned

The benefits of the UNITE Project to the university is the learning that accompanies the collaboration in building curriculum and programs. Each discipline, medicine, education, social work, and law maintains a strongly client focused approach. Through historical precedent, the disciplines have become accustomed to making service plans with families while not actively seeking the input of other disciplines. As a faculty, we learned how difficult it is to write cases together that accurately illustrate the complex conditions of families. In writing together, we found that our material stimulated focused thinking by other faculty and students opening the doors for understanding and true changes in professional behavior. We incorporated role-playing exercises as part of the cases to assist our community of learners to understand the affective as well as the objective aspects of the cases. Several examples stand out for me. In one case, the focus on safety of the child brought out intense discussions among the clinicians and faculty requiring some to step out of the classroom to arrive at a mediated agreement. Another case required class members to function in the roles of therapists. The class members who acted the role of the client had strong affective reactions to the roles of the therapists.

Two obstacles present challenges to the interdisciplinary model. The first is the problem of fitting the classroom and experiential components into existing professional curricula. Without acceptance from the credit granting committees of each department or college, students who want to participate do so as part of added course load. For those participating because of placement into a clinical internship, there may not be enough time for the classroom material. For those only attending the class presentation, there may not be enough time to work with

families affected by prenatal substance or alcohol use. Secondary to the issue of credit is the barrier created by the parochialism of disciplines. Though all acknowledge the importance of working as a team to serve families with complicated issues, the barrier is the perception of professionals that it is the duty of the other professions to change their behavior to expedite the "real" service for the family. By creating specific times for gathering learners, exposure to the true issues confronting families provides the stimulus for all professionals to accept the importance of the efforts of the other professions. Granting credit alone will not ensure the desired behavior changes.

A second obstacle is overcoming the demands of time and physical location. Holding classroom sessions requires finding weekday hours that interfere the least with busy professional schedules. Bringing class members and faculty together also presents challenges because many live some distance from the university. The UNITE Project has attempted to find a solution that applies the. most advanced models of distance education. While several have been tried and discarded, the most promising technology available seems to be the development of an intelligent web page and to use the Internet. While access to the Internet has increased dramatically since our project received funding, the technology forces the faculty to revise their methods of presentation and sharing of information. Some have had to start the process of becoming comfortable at the computer, an additional behavioral change brought on by the project.

The National Commission on Leadership in Interprofessional Education

As planned dissemination of lessons learned, sharing resource materials produced, and continuing to enhance current linkages and developing new linkages with other groups interested in interprofessional education and integrated services were the primary activities for the subcontract with the National Commission on Leadership in Interprofessional Education (NCLIE).

Activities

1. Throughout the year the National Commission on Leadership in Interprofessional Education (NCLIE) served as a vehicle for dissemination of the programs that were developed at the institutions that received interprofessional development grants and other interprofessional or integrated service programs involving Commission members. Programs were presented at ATE and AACTE national conferences and with the assistance of Commission member Dr. Tom Tonniges, a second joint meeting was held with the Directors of the American Academy of Pediatrics CATCH program. The content of the Commission meeting held in conjunction with CATCH focused on reports of the Interprofessional Development Grants. In addition to participating in the NCLIE meeting, Interprofessional Development Grant personnel and Commission members were guests at the CATCH meeting and served as resources for the CATCH conference. The event provided an opportunity to interact with participants as well as share ideas with the resource people on the CATCH program. The NCLIE budget helped to provide all meals and registration for Interprofessional Development Grant personnel and Commission members as well as defray other expenses related to the conference and Commission meeting.

   Dates for the aforementioned activities were as follows:

   ATE Meeting - Chicago, IL, February 13-17, 1999

AACTE - Washington, DC, February 24-27, 1999

AAP Community Access to Child Health - Oakbrook, IL, Conference Center

Several other presentations were made including a session at the National Council on Social Work in Education conference.

At the aforementioned conferences, presentations by representatives from Interprofessional Development Grant Programs and the Commission focused on three questions: (1) What lessons have you learned from the experience that would help other embarking on a similar venture? (2) What recommendations would you make to faculty, administration, students, community partners, funding agencies, etc.? (3) What products are available to be shared from your work (curriculum modules, publications, videos, slides, manuals, guidebooks, brochures, etc.)? Dr. Merle McPherson and Dr. Bonnie Strickland from the Maternal and Child Health Bureau indicated that the responses to these questions will be very helpful in the future work of the Bureau.

In preparation for the CATCH Conference, one person from each of the Interprofessional Development Grant sites was asked to write a case study to be disseminated at the Commission/CATCH meeting for use in the discussions. Also, the cases, which followed a similar format, are being shared with several foundations as well as other professional associations and agencies as requested. Coordination of the preparation of the cases with the Western Oregon University central program was provided. As planned, $1500 was earmarked in the NCLIE budget for each interprofessional development grant site to assist in preparation of the cases, and transportation and lodging for the representatives who presented the case at the Commission meeting.

2. Linkages with the American Academy of Pediatrics continued through Dr. Tom Tonniges, Director of Community Pediatrics. NCLIE also facilitated involvement of Commission

members in follow-up activities with CATCH, including regional meetings during the year at CATCH project sites.

3. Linkages have continued with Parents Reaching Out and Family Voices through contacts with Dr. Florene Poyadue and Ms. Polly Arrango. Commission members have already signed on to work on projects with each of these groups. Dr. Sophie Ao-Nugyen, Dr. Poyadue=s colleague and Association Director of Parents Reaching Out has maintained contact with the Commission. Dr. Poyadue has two new publications which will be distributed to Interprofessional Development Grant directors and Commission members.
4. Material on the NCLIE and interprofessional development activities were submitted to a summer meeting coordinated by Dr. Rick Brandon, University of Washington, which brought a group together to plan a publication on Interprofessional Training Activities. Dr. McCloskey was in attendance and through her the Interprofessional Development Grants and the Commission member activities were included in descriptions of programs being planned by the group that met at the University of Washington.
5. Linkages were maintained with the national group called Communities Can which involves Dr. Merle McPherson, Bureau of Maternal and Chid Health and Dr. Phyllis McGrab and Dr. Vince Hutchins of the National Center for Education in Maternal and Child Health, Georgetown University. This group was developed through a partnership that cuts across the U.S. Department of Education and the U.S. Department of Health and Human Services. Jeannie Heller, a member of the Commission and Director of Project Unity in Bryan-College Station, a neighboring community, is on the Advisory Board. The collaborative program focuses on family-centered, community-based integrated services and training with an emphasis on practitioner and family involvement.
6. Continued to publish articles, reports and chapters in books that reported on the work of the

Commission and the programs in which members of the Commission are involved. This included the publications of national and international groups. Three articles reporting the work of the interprofessional development grants and the NCLIE were published in international publications this year.

7. The NCLIE continued to serve as one of the hubs of an expanding network of individuals, agencies, institutions, and professional associations involved in the integrated services and the interprofessional education movement. Over 1000 sets of materials were distributed this year by the Commission working in collaboration with the Western Oregon University Teaching Research Division program.
8. The NCLIE office has helped to pull together copies of resource materials and publications that have emerged from the work of the Commission and affiliated projects and it has assisted in making contacts with other agencies, foundations, associations, etc. A library of over 250 case studies and an extensive library of policy reports, books and articles on integrated services and interprofessional development programs has been established. A summary of recommendations, core competencies and barriers to interprofessional program development emerging from the work of the Commission, interprofessional development grants and affiliated group is included as Appendix B.

White paper: Pediatric Perspectives on Implementing Interprofessional Practice for Children With Special Health Care Needs

Author: Andrew Hsi MD, School of Medicine, University of New Mexico

As part of a Department of Health and Human Services funded project on interprofessional service delivery, a small group of physicians convened in Los Angeles for a two-day meeting (June 11-13, 1999) to discuss interprofessional practice as it relates to children with special health care needs and their families. Participants represented a range of service settings, including a nonprofit community clinic, a multi-specialty group practice, a pediatric group practice, and practices in academic settings. Within their respective practices, these physicians coordinate regularly not only with other medical specialists and nurses, but also with educators, early childhood developmental specialists, social workers, lawyers, and other professionals to best serve their patients who have medical, educational, legal and social needs for support and intervention. The goal of the meeting was to produce a position paper describing commonalities in the practice experience of primary-care physicians and to develop recommendations for implementing interprofessional practice in different communities and in varied medical practice environments.

Defining Interprofessional Practice for Children with Special Health Care Needs

In their National Agenda, the Maternal and Child Health Bureau, Division of Services for Children with Special Health Needs, proposed a broad definition of ***Children with Special Health Care Needs*** as follows:

> All children who have or are at increased risk for chronic physical, developmental, behavioral, or emotional conditions who require health and related services of a type or amount beyond that required by children generally.

To that official definition, the group agreed that a functional definition of ***Special Health***

Care Needs would aid in directing the types of services required:

> Health conditions that require application of coordinated and planned health care interventions that include appropriate assessments and interventions for the educational and developmental growth of the child or individual and comprehensive assessments and interventions for the social support of the child or individual and family.

Building on these definitions, and responding to the multiple and complex needs of children and families, ***Interprofessional Practice*** could then be defined as:

> Professionals actively working together with other disciplines, families and communities in a coordinated effort to establish, organize, provide, monitor and evaluate services for children in families. This model of practice involves the design of interventions that target the optimal health, development, and social functioning for an individual in the context of the individual's family and community.

Elements that Make Interprofessional Practice Work

Although there is currently no infrastructure to support interprofessional practice as a standard of care for all children with special health care needs and their families, marked advantages to the approach have motivated a cadre of professionals to step out of traditional service delivery models and into interprofessional practice. Elements that make this approach work include:

- ***Core involvement*** of physicians, nurses, social workers, and educators/developmental specialists in addressing the health, social service, educational, and developmental needs of the child and family.
- ***Additional involvement*** of professionals such as lawyers, juvenile justice case managers,

and psychologists contributing in their areas of expertise.

- $ ***Shared communication and positive personal relationships*** among the professionals involved. Whether formal or informal, interprofessional teams are often formed and maintained on the basis of provider personality.
- $ ***Shared responsibility*** for addressing the complex and diverse needs of children and families. As outcomes for families are improved, professionals also experience increased satisfaction with their roles.

The Central Role of Care Coordination in Interprofessional Practice

Participants engaged in significant discussion on the topic of care coordination for children with special health care needs and their families. Care coordination can be conceptualized and operationalized in several different ways:

- $ ***Family members*** may perform coordination services for their own children by acting as the central repository of information and by communicating with the professionals involved in service delivery. The sheer complexity of the service systems, the time and expertise required to negotiate with service providers, and the technical nature of the intervention information often limits the number of families who can successfully serve the child in this capacity.
- $ ***Agency-designated care coordinators*** may be assigned to families by the agencies participating in service delivery. One common problem with this approach is that each agency involved may assign a coordinator, thus resulting in a confusing duplication of services.
- $ ***Independent care coordinators*** may be matched with families without reference to any particular agency involved in service provision. In this model, only one care coordinator

would be assigned per family and he or she would be charged with serving the family rather than working in alliance with a specific agency. Although this approach could minimize frustration for families, it is unclear how such care coordination would be supported financially.

- $ ***Primary-care physicians or other professionals*** may refer a family to a specialist or service agency contact who, in turn, communicates subsequent assessment or outcome information back to the referring professional. The obvious weakness of this approach exists in the tenuous nature of such informal communication links. Due to client load, information may not be passed back to the referring professional, or other professionals involved, in a timely way, if at all.

Barriers to Interprofessional Practice

The absence of an infrastructure to support interprofessional practice, along with confusion over how care coordination will be carried out, often results in barriers to interprofessional practice for children or families with special health care needs. As perceived by medical professionals, these barriers can be described as:

- $ ***Financial reimbursement limitations*** related to planning and coordinating activities; specifically, the capitation of health care costs and/or the absence of a designated care-coordination person. Medicaid, and, by extension, Health Maintenance Organizations (HMO=s), will not reimburse for time spent engaging in coordinating activities with other professionals. For uncomplicated family situations, some cooperative effort can be viewed as part of a professional=s regular job and communication through letters sent as followup to consultation may suffice. For complicated developmental, social, and medical conditions, however, such efforts are inadequate and the reimbursement systems will not recognize the DRG codes that cover the necessary conferences. Because large

numbers of children require multiple services, the burden of coordination can become overwhelming to professionals who are willing to treat complex cases.

- $ ***Physical space limitations*** as currently defined in the medical workplace; the design of clinical exam rooms making it problematical for people to meet to discuss care coordination.
- $ ***Paperwork demands;*** specifically the multitude of reporting requirements associated with case management billing and the difficulty of completing grant applications that would bring the additional dollars needed to fund care coordination.
- $ ***Inadequate mental health services***, particularly for children, and, in m/any communities, for adult parents as well. For the preschool-age child, the primary care physician is often the most likely to identify problems and make referrals to mental health services. For the school-age child, it is more likely that educators will initiate the referral, often through the primary-care physician, for evaluation and treatment of ADHD or related symptoms.
- $ ***Rigid service agency regulations and conceptual inflexibility*** that restrict or negate potential mechanisms for coordinating closely with other agencies.

Avenues for Advancing Interprofessional Practice

With the aforementioned barriers in mind, participants focused much of their discussion on **policy and funding mechanisms** that could promote care and service coordination. Avenues to explore include:

- $ ***Pressing funding agencies to create a special capitation rate*** to cover children with special needs. This would allow practices to recover part of the funds necessary to hire extra staff or cover the extra physician time required for coordination. HMO=s should designate a monthly case-management fee for children requiring interprofessional

services that would not necessitate overly detailed and time-consuming documentation. Likewise, state programs that provide billing for case management should not require so much information that the burden of documentation limits the time available for care coordination itself. From the perspective of policy makers, however, money for care coordination is already available through block grants in Title V for Health and Part C for Education. Additional funding to cover care coordination is unlikely to be forthcoming until clarification is provided on where the current funding is being spent and why it is not being channeled to meet family and professional needs.

$ ***Creating a mechanism for matching care coordinators*** with families. Several models of care coordination rely on ***nurses*** to act as coordinators because a successful system relies on individuals who can understand health care terms and the health care system. These individuals could be public health nurses, although in many locations, the public health system has been decimated and the availability of public health nurses is extremely limited. ***Social workers*** may now be working independently from agencies with greater frequency than in the past and thus be available to act as case coordinators to families with a child with special health care needs. Additionally, a ***hospital case-management model*** might be applicable if it can be connected to multiple private practices in a community.

$ ***Expanding the vision of agency leaders***, and thereby the funding streams, to encompass the combined needs of the child with special health care needs and the family members raising the child. Most funding specifies the adults (mental health, substance abuse treatment and prevention) or the child (early Head Start, Title V). Changes need to occur in block grant and discretionary funding to direct efforts toward the entire family to support the efforts in intervention for the child with special health care needs. Bridge

Title V and Part C funds for care coordination through primary health-care providers, especially for children less than five years of age, but possibly for children in school-based health programs as well.

- $ ***Developing "Centers of Excellence"*** within a community that specialize in handling the comprehensive care of children with special health care needs and their families. These centers might include family medicine, internal medicine, obstetrics and gynecology, and psychiatry. If the support cannot be developed in a single practice, the support might be found within community practices that have a CATCH affiliation or are affiliated with a university practice. The university practice should provide access to a vertically organized or integrated system of specialists.
- $ ***Directing policy and discretionary funding*** toward stimulating interprofessional practice as a standard of care. Interprofessional efforts should not, however, remain dependent on discretionary funds or they cannot be sustained.

Participants further agreed that **training** in interprofessional practice is more likely to have an impact on professionals already in practice than on those involved at a preservice level. Physicians= training would not necessarily need to be altered radically, but should include:

- $ ***Exposure to other professionals*** to increase knowledge, respect and familiarity with their work.
- $ ***Teaching physicians to ask the right questions*** to patients or families to elicit discussion of non-medical needs.

Finally, **research and evaluation** efforts could provide much-needed information on how interprofessional practice can be structured to maximally improve services for children with special health care needs and their families by:

- $ ***Developing and administering a probe instrument***, using agreed-upon definitions and elements of interprofessional practice, to determine whether physicians have incorporated interprofessional services into their standard practices.
- $ ***Determining the "value added"*** of a professional who has received training in interprofessional practice and the "value added" for a child, family, profession and society from interprofessional practice models.
- $ ***Exploring the sustainability*** of interprofessional practices among agencies.

VI. PUBLICATIONS AND PRODUCTS

Most of the publications and products have been been described in previous progress reports and this summary will highlight the most significant and recent developments. The actual reports can be found in the appendices section of this report.

SERVICE BRIDGES: Service Bridges is a newsletter publication that was published every 6 months. It contained up to date articles on the various projects funded by MCH as well as invited papers from other national authorities. Each publication contained a listing of the most recent, relevant publications from journals and a description of any up coming events on interprofessional topics. To insure the publication was meeting the needs of the field, a Reader Satisfaction Survey was developed and sent to the recipiants. On a rating scale from 1 (negative) to 5 (positive) all of the responses were over 4. A copy of this survey is attached to the Service Bridges examples (see Appendix C).

ANNOTATED BIBLIOGRAPHY ON INTERPROFESSIONAL EDUCATION AND TRAINING: During the course of the project three (3) bibliographies were produced and published (see Appendix D). Each documment contained an exhaustive search of the literature to locate and report on any materials that were relevant to interprofessional activities and integrated service programs. 200 copies of each bibliography were printed and all gone before the next one was published. On two occasions, the project had to make additional copies to meet the requests.

HIGHER EDUCATION CURRICULA FOR INTEGRATED SERVICES PROVIDERS: A report on the Survey of Demonstration Sites (see Appendix E). Nominations for potiential sites who might have an integrated services program in place, came from several sources with particular input from the National Commission On Leadership in Interprofessional Education. Seventy two sites were selected for inclusion in the survey study. Fourty two agencies responded and their data were analyzed. The findings are all contained in the report in the appendix but two of the results seem to coroborate other findings from this project. AFunding is almost always a problem and there is a general lack of cooperation from the medical community@.

PRIVATE FOUNDATIONS, PUBLIC AND PRIVATE COLLEGES & UNIVERSITIES: Because of the extreme interest in sources of additonal funding, the project initiated a review of potiential sources from the private foundations (see Appendix F). The report discusses 12 of the major foundations that have integrated services as one of their priorities. Each foundation is described along with their mission statement and a listing of the present projects they are funding. Also the main contact person is identified.

INTERPROFESSIONAL TRAINING PROJECT, California State University, Fresno: As the University began to incorporate interprofessional in three different departments, they found a need to develop teaching modules that could be used in the new curriculum. The faculty from social work, education and health designed six separate modules to teach the concepts (see Appendix G). Each module stands alone and contains: Goals, objectives, teaching methods, support materials, references, additional readings and evaluation forms. CSUF was successful in getting a University approved program in interprofessional education and train a cohort of students from each discipline, 30 students at a time (10 from each).

INTERPROFESSIONAL PRACTICE, University of Southern California: A series of seven teaching modules were developed to demonstrate the effectiveness of utilizing an interprofessional approach (see Appendix H). These materials were designed by faculty from social work, nursing, education, public administration, occupational therapy, physical therapy and pediatrics. The modules cover the areas of: stereotypes, team building, communication, cultural competence, families, building systems and evauation. There was also a video tape produced to introduce this approach.

WHITE PAPER: Pediatric Perspectives on Implementing Interprofessional Practice for Children with Special Health Care Needs: The project assembled a group of physicians, headed by Dr. Hsi from the University of New Mexico, to discuss their views on the improtance of utilizing an interprofessional approach with children with special health care needs. The results can be seen in the paper but several important outcomes occurred (see Appendix I). First, an aggreed upon definition of the population and the practice was developed. Up to this point, there were several definitions which would not allow consistant conclusions to be made. Once this was estabilished, it was possible to complete some other tasks such as getting agreement on: (a) elements that make interprofessional practice work, (b) the central role of care coordination, 8

barriers to interprofessional practice, (d) avenues for advancing interprofessional practice and (e) recommendations for the future.

INTERPROFESSIONAL ASSESSMENT INSTRUMENT: Assessing level of involvment in interprofessional practice: As the project progressed it became more and more evident that there needed to be some way to measure level of involvment in interprofessional programs. Many people spoke of the importance of using such an approach but there was little agreement as to how much of a program was in place and working. The project staff developed an instrument (see Appendix J) and tested it in several sites. Once a definition of interprofessional practice was in place, it was possible to design questions to determine how an organization was functioning and where the strengths and weaknesses were. All of the original field testing was done at individual sites and conducted in a face to face manner. Eventually one of the subcontractors, the pediatric center in LA, used the instrument with physicians around the country who said they were utilizing an interprofessional approach. Of the 130 contacted, 30 said they were using it regularly in their practice. Only 6 completed the final questionaire. Even so, it did shed some light on some things the pediatric center would need to do if they were to offer training to other sites. The results are also in the appendix and attached to the instrument. The general findings indicated that input from educators was usually missing, the social workers carried the burden for the non-medical tasks, speech professionals were often involved in the assessment activities, most of their support came from fees and the major barrier to using an interprofessional approach was funding.

VII. DISSEMINATION/UTILIZATION OF RESULTS

The project was heavily involved in dissemination activities over the duration. Many articles were published, monographs developed, course work designed, web sites came on line and presentations were made. The written materials can be found in the Appendices. The following

is a partial listing of the invited presentations:

AACTE, Chicago, 1996

AACTE, Phoenix, 1997

Tulane University, New Orleans, 1998

HAWAII, MCH project, 1995

CATCH, San Diego, 1997

CATCH, Overbrook, Ill., 1999

PARENT TO PARENT, Albuquerque, 1996

CASEY GROUP, Spokane, 1998

REGIONAL CONFERENCE, Fresno University, 1996

REGIONAL CONFERENCE, Fresno University, 1997

REGIONAL CONFERENCE, Fresno University, 1998

HENRY FORD HOSPITAL, Detroit, 1996

PHYSICIANS GROUP, Los Angles, 1999

SAINT LOUIS UNIVERSITY, St. Louis, 1997

PRIVATE PHYSICIAN MCH PROJECT, Phoenix, 1999

HAWAII MCH PROJECT, Honolulu, 1999

VIII. FUTURE PLANS/FOLLOWUP

This project as it was originally designed has been completed and will no longer exist as a single project. The findings have been disseminated widely and the products made available to the field. All three of our subcontract sites are now free standing and have their own funding to continue the basic work. One of the sites, the The Pediatric and Family Medical Center in LA, however wishes to continue the work from this project to develop a Policy Center that could be used to assist others to incorporate the findings of this project and expand their own model. The

staff from this project have assisted the LA group in the design of a proposal which will become the blueprint for such a Center. A complete description of that approach can be found in Appendix K.

IX. TYPE/AMOUNT OF SUPPORT AND RESOURCES NEEDED TO REPLICATE

A type of replication is being developed by the Pediatric and Family Medical Center in Los Angles and the costs are reflected in their budget. By becoming a Policy Center, they will take on many of the functions of this present grant. The design for the Center can be found in Appendix K.

ANNOTATION

This project was funded by MCH, Special Health Care Needs Branch, to develop programs in the area of Interprofessional Education. As the project progressed it became more and more clear that a definition of interprofessional practice was needed. The result was a definition of special health care needs children and the conditions that must be present to meet the criteria of an interprofessional approach. In this project, interprofessional means cooperative work between physicians, educators and social workers (at a minimum) to conduct an assessment and design an intervention strategy. Three sites were developed that utilized this approach and they were used as models for others to replicate. Many materials, teaching modules, web sites, articles and presentations were developed and disseminated. An instrument to assess the level of interprofessional engagement was also designed. All of the original objectives were met and all three of the model sites are now operational with their own funds.

KEY WORDS

Interprofessional	Interdisciplinary assessment
Integrated services	Cooperative intervention
Teaching modules	Medical involvment
Staff training	Evaluation
Community settings	Funding

Appendix A

Reader Satisfaction Survey

Appendix B

Report on Activities - The National Commission on Leadership in Interprofessional Education

Appendix C

Service Bridges

Appendix D

Annotated Bibliographies (Volumes I, II, III)

Appendix E

Report on the Survey of Demonstration Sites

Appendix F

Private Foundations, Public and Private Colleges and Universities

Appendix G

Interprofessional Training Project - California State University, Fresno

Appendix H

Interprofessional Practice - University of Southern California

Appendix I

White Paper: Pediatric Perspectives on Implementing Interprofessional Practice for Children with Special Health Care Needs

Appendix J

Assessing Level of Involvement in Interprofessional Practice and Summary

Appendix K

Pediatric and Family Medical Center - Proposal for Policy Center