

**GRADUATE AND CONTINUING EDUCATION NEEDS  
IN MATERNAL AND CHILD HEALTH:  
Report of a National Needs Assessment, 2000-2001**

by

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## **EXECUTIVE SUMMARY**

### **Purpose**

The Maternal and Child Health Bureau (MCHB), HRSA, DHHS, currently allocates approximately \$35.8 million annually to support training in a variety of areas relevant to the needs of professionals responsible for the maternal and child health (MCH) population in the United States. Graduate education programs support both uni-disciplinary and interdisciplinary studies in academic, clinical, and public health practice areas. In addition to conference-based training sessions, short-term continuing education support includes distance-learning and technology-based courses. Supporting its strategic plan for addressing the long-term graduate and short-term continuing education needs of the MCH workforce, MCHB asked the MCH Leadership Skills Training Institute (MCH-LSTI) to conduct a national assessment of graduate and continuing education needs. The purpose of this assessment was to provide current and critically needed information to help guide future strategic decisions regarding MCHB training initiatives.

### **Methods**

In consultation with MCHB and an advisory committee assembled for this project, major state and local agencies and organizations serving the MCH population were chosen as the target of this assessment of training needs. As a means of obtaining input from these employers of MCH professionals, a needs assessment form was developed to assess the importance of and need for supporting training in specific skill and content areas and the preferred modalities for training. During the summer of 2000, the needs assessment forms were distributed to the following MCH-related agencies: all State Medicaid offices; a 20% random sample of local health departments (Local); all State and Territory Maternal and Child Health (MCH) agencies; all State and Territory Children with Special Health Care Needs (CSHCN) agencies; all HRSA/MCHB Regional Offices; and, key informants selected by the National Office of the March of Dimes. While the HRSA Regional Offices and March of Dimes key informants were included in the information-gathering phase, the data collected from these groups are not included in this report, as the responses were not believed to necessarily be representative of their respective organizations or agencies. Therefore, all results presented in this report reflect the following four respondent categories: local health departments and State MCH, CSHCN and Medicaid agencies.

### **Response Rate and Limitations**

Needs assessment forms were mailed to 871 agencies, the majority to local health departments. State MCH and CSHCN agencies had the highest return rates among the respondent categories, at 79.3% and 54.4% respectively. Medicaid agencies followed closely at 53.6%. Local agency response rates were significantly lower (23.7%). Overall, 274 forms were returned, representing a 31.5% response rate. This overall response rate largely reflects that of the Local agencies, which composed 80 percent of the original target respondents. The low response rate (24%) from Local health department agencies represents a major limitation to this study. Although the response rate is not atypical of mailed surveys and would be difficult to increase without

a substantial investment, the Local health respondents may not be representative of local health departments. The MCH agency response rate probably does reflect a close representation of MCH agencies in general. The response for State CSHCN agencies was lower than that of MCH agencies and was more variable across the regions. Regions III, IV and IX were conspicuous in their low response and generalizing these results to those regions should be undertaken with due caution. Similarly, lower response rates from Medicaid offices in Regions VIII, IX, and X limits generalizability to those areas.

### **Overview of Graduate Education Needs**

Regardless of agency type, i.e., state MCH, CSHCN, Medicaid or local health department, having employees with graduate education in MCH was perceived to be of value. The percentage of agencies perceiving a benefit from having graduate level trained employees ranged from a low of 73.3% among Medicaid directors to a high of 95.5% of State MCH Directors (Figure 1). More than one-half of the MCH, CSHCN and Local agencies reported that they either had a hard time or were unable to find qualified applicants who possessed the critical skills they needed (Table 6).

Respondents were asked to rate the importance of graduate-level skills and competencies. Leadership, systems development, management, administration, analytic, policy and advocacy skills were all overwhelmingly perceived to be important (Table 5). Compared to Local health agencies, the three state-level agencies perceived graduate-level clinical skills to be less important (Table 5). Agency respondents indicated MCH epidemiology, health care administration and management as among their top rated critical unmet need areas for MCH professionals with graduate education (Tables 8 and 9). In the clinical area, the critical unmet need areas included genetics, dentistry and health education for MCH agencies; medicine, dentistry and nursing for CSHCN agencies; nursing, nutrition and health education for Local agencies; and, dentistry, health education and nursing for Medicaid agencies (Tables 7 and 9).

Several factors were reported as preventing staff from pursuing graduate education (Table 12). The cost of graduate education programs, the loss of income while in school, and the time required for completion of the program were reported to be the most prohibitive barriers to graduate education by all responding agencies.

### **Overview of Continuing Education Needs**

Appreciable unmet need for more continuing education for MCH personnel was identified (Figure 2). Moreover, state and local agencies report limited capacity to meet the training needs of either their staff or the staff of other agencies (Table 47). Program managers and program staff were perceived to be in greatest need for continuing education (Tables 13 and 50). Program management and administration skill areas were the most important CE themes for program managers and include program planning, development, implementation, management and evaluation, needs assessment, performance management, data analysis and interpretation, personnel management, team building and policy development (Table 31). For program staff, the most important CE topics tended to be more direct service and program performance oriented and include cultural competency, family centered care, families as partners,

clinical skills, and program evaluation, performance and management (Table 32). For agency directors, leadership, systems development and administrative CE themes emerged across all agencies, including health care financing, policy development, interagency and systems-level collaboration, managing change and performance, team building, negotiations, personnel management, and working with families, communities, the public, and legislative bodies (Table 30).

Respondents indicated that it would be useful for MCH personnel at nearly all staff levels and agency types to learn more about the programs, policies and access and referral procedures of Medicaid agencies and for the personnel of those other agencies to learn more about those same items for MCH-related agencies. Co-knowledge of data bases and needs assessments were also viewed as useful. Finally, the future emerging topics for continuing education for all agencies included skills in technical writing (e.g., grant writing), communications, systems development, organization change, cost analysis, and advanced leadership.

The number of reported continuing education programs currently being provided is modest (Table 49). Further, the routine assessment of training needs is very limited, which makes it difficult for agencies to accurately document their needs and plan accordingly to meet them (Table 48).

Having in-state, on-site and small conferences as a means for continuing education was of interest to the respondents and comprised their first preference (Tables 43-45). These preferences seem to be compatible with the reported barriers to seeking CE, i.e., time away from work, lack of staff to cover functions while away, and cost (Table 46). While there are appreciable interest, capacity and preference for other types of CE modalities, including Internet and Web-based training, the reported preference for small conferences might reflect a desire for interaction among colleagues and educators as part of continuing education activities. Taken together, these responses may reflect a desire for local training opportunities that allow participants to get out of the office (thereby eliminating constant interruptions) for short periods of time to learn together.

### **Recommendations:**

The following recommendations are based on the findings of this needs assessment, a review of the previous 1992 AMCHP assessment of MCH graduate and continuing education needs, and the authors' nearly two decades of experience in providing graduate and continuing education in the MCH field. The recommendations are presented in order of priority, although the top five are all seen as critical.

#### **Recommendation #1: Continue to support MCH graduate education in public health and clinical skill areas, using multiple funding support mechanisms.**

Substantial demand for employees with graduate education was in evidence among all agency types queried. More than 70 percent of all the agencies perceived having employees with graduate education as a benefit with 96 percent of MCH agencies so responding (Figure 1). For all agencies, more than one-third of current staff members were viewed as able to use or benefit from graduate education (Table 11).

More than 80 percent of all respondents in State MCH, State CSHCN, and Local agencies perceived public health leadership and systems development as among the most important graduate education topics and over 75 percent of all agencies perceived graduate education in program management, administration and core public health skills as important (Table 5). Among the specific core public health skills areas, a MCH professional with graduate education in MCH epidemiology was indicated to be the most critical unmet need area by state MCH (96%), State CSHCN (67%), Local (55%), and Medicaid (57%) agencies (Table 8).

Given these findings, it is recommended that MCHB continue to support MCH graduate education in public health and might make additional dollars available for tuition remission and stipends in order to allow more students to pursue the MPH degree in MCH without excessive cost burdens and significant loss of income. Further, MCHB might explore partnerships with state MCH/CSHCN programs to offer graduate fellowships to current MCH professionals interested in pursuing the MPH, with the condition that the graduate return to their home state and program. This would provide security to the employee as well as an incentive to the agency to grant the employee educational leave. The MCH Bureau might also offer graduate fellowships to entry-level students. These might also include a required two or more year placement in a MCH/CSHCN-related agency upon graduation.

There also remains a large unmet need for professionals with graduate education in clinical skill areas. For MCH agencies, the highest unmet critical need areas for clinical graduate education were genetics (61.4%), dentistry (47.7%), health education (45.4%) nutrition (44.2%) and nursing (42.3%). For CSHCN agencies, the higher unmet clinical need areas were medicine (64.7%), dentistry (57.1%), nursing (55.5%), physical therapy (50%) and early childhood education (50%). Nursing was the highest clinical area of unmet need for Local agencies, followed by nutrition (46.4%) and health education (45.1%). Dentistry (61.9%), health education (50%) and nursing (45%) were the most prominent unmet clinical need areas for Medicaid agencies (Table 7). Multiple approaches might be considered by MCHB to address these needs, including tuition and stipend support for graduate education and graduate fellowships tied to conditions of working a specified period in a state or local MCH, CSHCN or related agency. Joint degree programs, e.g., MPH/MD, MPH/MSN and MPH/MSW, represent another viable approach to increase the availability of clinicians cross-trained to address a broad range of needs of the MCH population.

**Recommendation #2: Expand continuing education in the areas of leadership, administration, management, core public health, and clinical skills and support innovative continuing education approaches targeted at program managers and staff using on-site and small conferences.**

A need for continuing education was reported by more than 90 percent of respondents from all agencies (Figure 2). Program managers were identified by over 58 percent of respondents as having the greatest unmet need. More than 67 percent of program staffs were perceived to have a need for continuing education (Table 13). Leadership, management, administration and core public health skills were among the most important CE topics requested and were among the topics suggested to receive CE training dollars. The importance of specific CE topics differed by staff levels.

Leadership and system-based skills (i.e., systems development, interagency collaboration, policy issues, advocacy) were deemed as important for directors. More than 80 percent of those responding viewed program management skills and core public health skills (i.e., program development/implementation/evaluation, personnel management, performance measures, data analysis) as important CE topics for managers. For program staff, over 70 percent of all respondents indicated more direct service and program performance topics (i.e., cultural competency and family-centered care) as an important area for continuing education (Tables 14-32). Finally, well more than a majority indicated that CE on other agency's services, programs, policies, and data would be useful (Tables 33-42).

Many of the emphasized CE topic areas are currently addressed by several MCHB-funded CE efforts, e.g., the MCH Leadership Skills Training Institute, although the demand for training continues to exceed the capacity of this program. The ongoing demand for CE in these leadership and management topics suggests that current successful efforts be continued and even expanded to allow more staff to participate and that additional, alternative CE approaches also be explored. As an example of an alternative approach to address current CE needs in the areas of leadership, administration and management, MCHB might support the further development of regional or state leadership academies and identify groups of experts to provide specific skills training in several states (i.e., a traveling leadership academy). Several states (e.g., Illinois, Arkansas) have already organized successful public health leadership academies and more could be designed as certificate programs with MCHB supporting the skeletal structure in an effort to enhance the skills of MCH professionals in a variety of settings within several states.

The major barriers to current employees pursuing continuing education are time away from work, inadequate staffing to cover absence from work, and the cost of CE programs. Over 70 percent of all respondents indicated time away from work as a barrier for continuing education. The cost of continuing education and lack of adequate staff to cover for employees out were perceived as barriers by more than 59 percent of all respondents (Table 46). At the same time, the preferred modality for CE was "in-state" and "small conference". More than 70 percent of the State MCH and State CSHCN respondents indicated "in-state conference" as the preferred mode of continuing education compared to more than half of local and Medicaid respondents. Over 60 percent of all respondents prefer a "small conference". More than 68 percent of State MCH, Local, and Medicaid respondents indicated a preference for on-site workshops, while only 55 percent of State CSHCN respondents preferred this mode of continuing education (Table 45).

Given these identified barriers and preferred modalities for CE training, MCHB might consider funding several entities or individuals to develop itinerant continuing education programs that could be 'taken on the road' and offered locally in multiple states throughout a region. These could be supported along with or in favor of the more traditional CE model of funding one entity to provide one CE conference in one state or one region. Current grantees of CE training funds might be provided incentives to work together on a particular topic, optimizing particular talents that exist across universities rather than setting them up as competitors. For example, given the importance of cultural competence training, it is conceivable that faculties at more than one MCH-

funded training program that would be interested in jointly developing a traveling continuing education program. Bringing together faculties from different universities and different specialties, e.g., public health and clinical, could further enrich the perspectives brought to training.

**Recommendation #3: Explore the development of a national MCH training policy analysis and development center to serve as a focus for assessing training needs on a regular basis, to serve as a clearinghouse for training activity information, and to foster the development of a national or regional MCH CE brokerage model.**

Less than one-half of the responding agencies routinely assessed the training needs of their own staffs or others (Table 48). A comparison of the results of this needs assessment with the 1992 AMCHP assessment indicate that some training needs may have declined (e.g., the need for graduate degree trained nurses), some may have stayed the same (e.g., the need for program development and management training), and some have emerged (e.g., the need for systems development training). These apparent changes in training needs over time suggest that regular, systematic assessments of training needs and appraisals of the impact of training support efforts are advisable to assure that current training efforts are appropriately targeted and to assess the degree to which trends may partly reflect the effectiveness or insufficiency of past state and national training initiatives. Moreover, the results of these periodic assessments should be routinely analyzed and compiled in such a manner as to facilitate their use in MCHB's strategic planning and performance measurement activities. Accordingly, MCHB might consider establishing and supporting a national MCH graduate and continuing education training policy analysis and development center to advise MCHB on training-related efforts and serve as a training resource for state Title V and related agencies. Such an entity could provide several important and needed services, including the regular national assessment of training needs and the provision of guidance to states and localities on the conduct and analysis of ongoing training needs assessments. Moreover, the proposed center could assist in the evaluation of these efforts and in the promotion of federal/state/ training partnerships.

Another specific function of this proposed center might be the development and maintenance of a continuing education clearinghouse. Benefits of a MCHB-funded clearinghouse for CE were perceived by 85% of MCH, 60% of CSHCN, 67% of Local, and 71% of Medicaid agencies (Table 52). These responses indicate strong support for the creation of a national MCH training clearinghouse that in one place would organize information on existing training programs and offerings funded by MCHB. Such information would include details about graduate and CE programs, including contact information, targeted audience, cost, content, objectives, location, dates, and agenda of each training session. The clearinghouse aspect of the proposed center support the efforts of existing funded grantees in marketing their educational programs.

In order to assist MCHB in targeting CE efforts to meet specific state and local needs for desired CE content and preferred CE modalities, while fostering the development of training teams composed of the best trainers from multiple schools and organizations, the proposed center might also be used to explore the development of a national or regional CE brokerage model, whereby a single entity would bear

responsibility for identifying experts on selected topics and then deploying them to several states over the course of a year. The broker would handle logistics, including soliciting topic requests from states (beginning with those identified most frequently through this survey); matching experts to topics; and arranging the schedule of CE sessions, topics and sites. For example, once critical CE topics are selected for a region, the CE broker would be charged with identifying one or more persons to develop a CE program on each topic. The persons selected would be asked to offer the CE program on-site or in-state in several states over the course of a year for a negotiated package fee. The broker would also arrange the scheduling and pay the travel and expenses of the speakers.

**Recommendation #4: Require state Title V agencies to conduct assessments of their needs for graduate education, continuing education, and technical assistance, as part of the 5-year and annual update needs assessments.**

In order to assist MCHB in obtaining ongoing and current information to plan for graduate education, continuing education, and technical assistance efforts, State Title V agencies might be encouraged, as part of their comprehensive five-year and annual update needs assessments, to conduct and report on assessments of the graduate and continuing education needs of their state's MCH/CSHCN professionals both within and outside the agency. This would allow for MCHB to better identify unmet needs, as well as determine when needs have been met, so that resources can be directed at the most pressing problems.

The MCH Bureau invests considerable funds in both continuing education and technical assistance for MCH, CSHCN and related programs, though tends to organize them separately. State assessments of continuing education needs, coupled with the self-assessment of technical assistance needs that states conduct each year, would be expected to reveal substantial overlap between the two. It is not unusual during a continuing education program for participants to ask questions specific to their work to the point that the education program borders on a technical consultation. Similarly, technical assistance visits may evolve into continuing education sessions as trainees ask for more detailed explanations, historical perspectives or guidance in adapting new skill areas. State assessments might reveal needs for more coordinated approaches to technical assistance and continuing education. Such approaches would also be consistent with the results contained in this report (Table 45) that indicate a greater desire for on-site short courses (a step closer to a technical assistance model) versus large national or regional conferences (the typical continuing education approach).

**Recommendation #5: Explore and promote alternative graduate and continuing education models, e.g., distance learning.**

The major barriers to current employees pursuing graduate education are cost of the program, loss of income while completing the program, ability to take time off work, and time to complete the program (Table 12). Over 60 percent of respondents from State MCH, CSHCN, and Local agencies indicated the barriers above to be of the greatest consequence to graduate education. Distance to the program followed the above barriers in terms of importance across agencies. For Medicaid respondents, the percentages were slightly lower, but the trends in perceived barriers mirrored those of

other agencies with over 50 percent of the Medicaid respondents indicating cost of program, loss of income while in school, ability to take time off work, and time required to complete program as barriers to graduate education. In order to address these barriers, the MCH Bureau should continue and might further expand its promotion of alternative graduate educational models (e.g., weekend, work/school, and partial distance-based programs), ideally with regional access for professionals in all states. Support of on-site or on-line certificate graduate-level programs may also be considered.

Barriers to continuing education also include time away from work, cost, lack of adequate staff for coverage, and travel restrictions (Table 46). More than 70 percent of all respondents perceived time away from work as a barrier. Over 60 percent of State MCH and CSHCN agency respondents and more than 35 percent of Local and Medicaid perceived travel restrictions as barriers. While preference for on-site continuing education is evident, there are also appreciable interest, capacity and preference for distance learning at both state and local levels (Tables 43-44). This offers an alternative CE training approach that might be further promoted and supported by MCHB.

**Recommendation #6: Sponsor academic/practice partnerships to develop cross training of MCH-related faculty and expand technical assistance and continuing education opportunities.**

Given the existing need for well-trained MCH professionals with diverse skills, states might benefit from longer-term, on-site consultation and involvement of MCH-related faculty. This might be accomplished in a manner similar to that used by CDC to assign epidemiologists to states. Graduate training programs (both in the clinical and public health areas) would also benefit from having their faculty gain MCH agency practice experience. The MCH Bureau could consider funding sabbaticals for faculty in MCH programs in Schools of Medicine, Public Health, Dentistry, Nursing, Social Work and other MCH-related fields in order that these experts could spend time with one or more states. These sabbatical, possibly ranging from 6 months to more than one year, would allow faculty to provide more intensive continuing education and technical assistance on a set of relevant topics, while at the same time gaining valuable practice-based experience. Finally, interagency personnel actions (IPAs) might also be used to allow faculty to take sabbaticals or work-leave to work with MCHB or its regional offices.

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## **PURPOSE OF THE NEEDS ASSESSMENT**

The U.S. health care system has seen major changes over the last decade and has become increasingly complex. Resultantly, innovative policy, programmatic and service approaches will be essential to assure that there are adequate services and well-trained service providers available to meet the needs of the maternal and child health (MCH) population. In order to address the training needs brought about by these changes, the Maternal and Child Health Bureau (MCHB), HRSA, DHHS, currently allocates approximately \$35.8 million annually to support training in a variety of areas relevant to the educational needs of professionals responsible for the MCH population in the United States. Graduate education (GE) programs receiving funding from MCHB support both uni-disciplinary and interdisciplinary studies in academic, clinical, and public health practice areas. In addition to conference-based training sessions, short-term continuing education (CE) efforts supported from MCHB include distance-learning and technology-based courses.

The Maternal and Child Health Bureau, supporting its strategic plan related to long-term graduate and short-term continuing education of the MCH workforce, asked the MCH Leadership Skills Training Institute (MCH-LSTI) to conduct a national assessment of graduate and continuing education needs. The purpose of this assessment was to provide current and critically needed information to help guide future strategic decisions regarding MCHB training initiatives. In an attempt to assure input from agencies and organizations focusing on MCH populations, information compiled for this needs assessment included responses to questions regarding the importance of and need for supporting training in specific skill and content areas and the preferred modalities for training. A copy of the needs assessment data collection form used for this project is provided in Appendix A.

## **METHODS**

With the guidance of MCHB, the MCH-LSTI assembled an Advisory Committee for the project and organized a meeting of the committee in December of 1999. The Advisory Committee was convened to guide the project in:

1. Determining the target audience(s) for MCH continuing and long-term graduate education and, by extension, this assessment of those needs;
2. Planning for and developing needs assessment forms designed to assess the MCH continuing and long-term graduate education needs of each target audience;
3. Assessing current MCH-related CE and GE efforts;
4. Interpreting the results of the surveys; and,
5. Developing recommendations for a strategic plan for continuing and long-term graduate education in MCH.

In addition to MCHB representatives, the committee included representatives of public and private agencies, organizations and professional disciplines involved in MCH-related activities at the local, state and national levels, e.g., AMCHP, NCEMCH, ATMCH, MOD, local and state public health departments, NACCHO, CityMatCH, etc. Representation also reflected managed care and other health care plan organizations, health care providers, advocacy groups, special education, day care and families/consumers of MCH services. The agenda for the Advisory Committee meeting and a list of committee members are provided in Appendices B and C.

After reviewing alternatives, the Advisory Committee concluded that soliciting information directly from the wide range of professional specialty groups involved in MCH-related agencies was not feasible, given the resources available to this project. Instead, it was decided that the needs assessment should focus on soliciting information from the major employers of MCH professionals, rather than soliciting information directly from the individual professionals themselves. Therefore, the main target of this needs assessment was the directors of state MCH and CSHCN agencies and the MCH-related program directors of Medicaid programs and local public health departments. Input from state March of Dimes agencies was also seen as desirable in order to better understand the training needs of private, non-profit MCH-related organizations. Once the information from the above groups has been compiled and analyzed, Children's Hospitals and managed care organizations are also seen as possible future target respondents for any subsequent phase of this needs assessment.

During the early months of 2000, further input toward the development of the needs assessment form and methodology was obtained through the conduct of telephone interviews with MCH experts, who were identified by the Advisory Committee. Once the needs assessment methodology was approved in the early Spring 2000, work started on the development of the needs assessment form. In order to allow for temporal comparisons, a decided effort was made to include questions contained in a previous MCH training needs assessment survey form used by the Association of MCH Programs' Committee on Professional Education and Staff Development in 1992. A copy of their report on continuing and long-term graduate education needs, entitled "Meeting Needs - Building Capacities: State Perspectives on Graduate Training and Continuing Education Needs of Title V Programs", is provided in Appendix D.

The draft needs assessment forms were distributed for comment in the Spring of 2000 and finalized for use in May 2000. The distribution of the needs assessment forms was delayed until Summer 2000, in recognition of the pressing deadlines and workload faced by states related to their MCH Block Grant applications. The needs assessment forms were sent to the following MCH-related agencies:

- All State Medicaid offices (Medicaid);
- A 20% random sample of Local Health Departments (Local);
- All State and Territory Maternal and Child Health agencies (State MCH);

- All State and Territory Children with Special Health Care Needs agencies (State CSHCN);
- HRSA Regional Offices;
- National Office of the March of Dimes.

While the HRSA Regional Offices and March of Dimes key informants were included in our information-gathering phase, the data collected from these groups are not included in this report, as the responses were not seen to necessarily be representative of their respective organizations or agencies. Therefore, all results presented in this reflect the following four respondent categories: local health departments and State MCH, CSHCN and Medicaid agencies. A twenty percent random sample of all local health departments (Local) was selected by NACCHO, who then provided MCH-LSTI with contact information for each local health department contained in the sample. The State MCH and CSHCN contact information was obtained from the AMCHP membership list. HRSA Regional Office contact information was provided by MCHB. The national office of the March of Dimes identified several key informants at the state level. These key informants were sent the needs assessments forms by their national office, which collected the responses and then provided them to MCH-LSTI.

Each individual needs assessment form was marked with a unique identifier, with the numbers grouped according to agency type. All needs assessment forms were mailed in August 2000. In order to increase the response rate, State MCH, CSHCN and Medicaid agencies received follow-up calls after 6 and 10 weeks.

## **STUDY LIMITATIONS**

As will be indicated in the following Results section, the response rate from Local health department agencies was low (24%) and represents a major limitation to this study. Although the response rate is not atypical of mailed surveys and would be difficult to increase without a substantial investment, the Local respondents may not be representative of local health departments in general.

The data provided in the next section will also reveal that the response rate for the State MCH agencies was the highest among the agency types. After taking into account the predominance of missing responses from territorial offices, the MCH agency response rate probably does reflect a close representation of MCH agencies in general. The response for State CSHCN agencies was lower than that of MCH agencies and was more variable across the regions. Regions III, IV and IX were conspicuous in their low response and generalizing these results to those regions should be undertaken with due caution. Similarly, lower response rates from Medicaid offices in Regions VIII, IX, and X limits generalizability to those regions.

# RESULTS

## Respondents and Response Rate

Table 1 provides information on the number of needs assessment forms distributed and returned by agency type. Overall, 871 needs assessment forms were mailed, the majority to local health departments. The return rate varied markedly by type of respondent agency. State MCH and CSHCN agencies had the highest return rates among the respondent categories, at 79.3% and 54.4% respectively. Medicaid agencies followed closely at 53.6%. Local agency response rates were significantly lower (23.7%). Overall, 274 surveys were returned, representing a 31.5% response rate. This overall response rate largely reflects that of the Local agencies, which composed 80 percent of the original target respondents.

**Table 1  
Response Rate By Agency Type**

<b>Graduate and Continuing Education Assessment</b>			
<b>Agency Type</b>	<b># Forms Mailed</b>	<b># Forms Returned</b>	<b>Percentage Returned</b>
<b>MCH*</b>	58	46	79.3%
<b>CSHCN*</b>	53	31	54.4%
<b>Locals</b>	704	167	23.7%
<b>Medicaid</b>	56	30	53.6%
<b>Totals</b>	871	274	31.5%

(\*): 9 returned forms indicated a combined response for MCH and CSHCN

[Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

Response rates by region are provided in Table 2. For CSHCN and MCH agencies, Region IX had a response rate considerably lower than other regions, while there was a 100% response from Region VIII. Regions VIII, IX and X had relatively lower (<50%) response rates for Medicaid agencies compared to the rest of the country. The highest response rate for Local agencies was 46 percent in Region IX. Of the Local agencies, the heaviest sampling occurred in Regions I, IV and V. However, the highest response rates occurred in Regions IX, X and V. No territorial offices were included in the Local sample, whereas these territorial offices were included with the target State MCH and CSHCN agencies. It should be noted that this project had greater difficulty in following up with MCH and CSHCN territorial offices due to time zone differences and other factors.

**Table 2  
Response Rates by Agency Type and Region**

<b>REGION</b>	<b>State MCH</b>	<b>State CSHCN</b>	<b>Local</b>	<b>Medicaid</b>
<b>Region I</b>	83.3%	66.7%	5.6% (142)	66.7%
<b>Region II</b>	75.0%	75.0%	23.7% (38)	50.0%
<b>Region III</b>	100%	33.3%	28.6% (56)	83.3%
<b>Region IV</b>	75.0%	37.5%	27.1% (129)	75.0%
<b>Region V</b>	83.3%	66.7%	35.5% (110)	66.7%
<b>Region VI</b>	100%	60.0%	10.8% (83)	60.0%
<b>Region VII</b>	100%	50.0%	34.9% (66)	50.0%
<b>Region VIII</b>	100%	100%	23.7% (38)	33.3%
<b>Region IX</b>	30.0%	10.0%	45.8% (24)	20.0%
<b>Region X</b>	75.0%	75.0%	44.4% (18)	0.0%

[Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

In order to better understand the point of view of the individual who responded for their agency, the needs assessment form inquired of the respondent's professional staff level. The majority of those completing the form classified themselves as "Director" or "Program Manager" (Table 3).

**Table 3  
Staff Level of Respondents by Agency Type**

<b>STAFF LEVEL</b>	<b>State MCH</b>	<b>State CSHCN</b>	<b>Local</b>	<b>Medicaid</b>
Director	61.9%	52.4%	54.5%	27.6%
Program Manager	23.8%	42.9%	29.1%	41.4%
Program Staff	2.4%	----	3.6%	17.2%
Other	11.9%	4.8%	12.7%	13.8%

[Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

As it was viewed as relevant to ascertain the size of the workforce of these agencies, respondents were asked to indicate the number of employees in their agency. The majority of State MCH agencies had less than 250 employees (Table 4). However, the majority of respondents in other agencies (i.e., CSHCN, Local, and Medicaid) reported less than 50 full-time employees. Over 80% of Local respondents reported less than 50 employees.

**Table 4  
Number of Full-Time Employees By Agency Type**

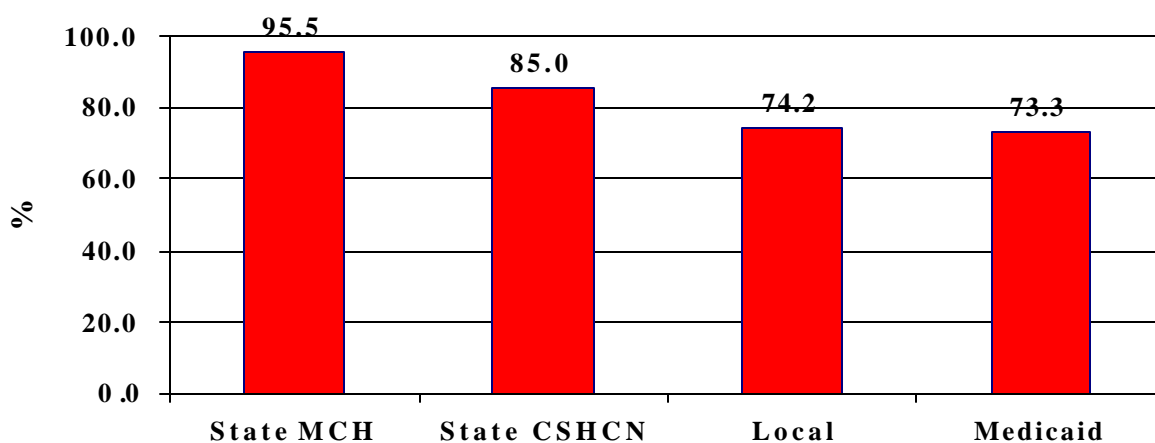
	<b>State MCH</b>	<b>State CSHCN</b>	<b>Local</b>	<b>Medicaid</b>
<b>Mean</b>	118.16	49.00	145.00	205.67
<b>Median</b>	85.5	29.00	9.20	17.00
<b>Range</b>	3 – 686	2 - 180	0 - 1400	1 - 2000
<b>25% - 75%</b>	40 –130 (90)	9 – 75 (66)	4 – 30 (26)	6 – 165 (159)
<b>% &lt; 50 employees</b>	28.6%	66.7%	82.8%	68.9%
<b>% 50 – 100 employees</b>	28.7%	11.2%	5.6%	4.3%
<b>%100 – 250 employees</b>	33.6%	22.3%	4.9%	8.6%
<b>%250 – 500 employees</b>	7.2%	---	4.2%	---
<b>%&gt; 500 employees</b>	2.4%	---	2.8%	17.2%

[Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

## **Graduate Education Needs and Barriers**

Respondents were asked whether there would be any benefit to their agency having employees with graduate-level education in maternal and child health, either having earned the degree or being in the pursuit of a graduate-level degree. Figure 1 displays the percentage of respondents who see having employees with a graduate education as a benefit (graduate education includes taking graduate-level courses for academic credit leading to a graduate degree). More than 70 percent of all the agencies perceived having employees with graduate education as a benefit with 96 percent of MCH agencies so responding.

Figure 1  
% Perceiving Graduate Education as a Benefit



MCH Leadership Skills Training Institute: Year 2000 Assessment of Training Needs

The respondents were given a list of graduate-level skills and competencies and asked to rate these in order of importance. These skills are those that may be considered important for successful participation in the workplace and are needed by those who are graduates of MCH-funded training programs. The skills listed include:

- Scientific and Philosophical Basis of MCH: human growth and development, population health, history and philosophy;
- Core Public Health Skills: biostatistics, epidemiology, environmental health, social and behavioral sciences, health administration;
- Data, Analytic, and Epidemiology Skills: data systems design, data collection, analysis and interpretation, study design, data-based decision making;
- Program Management and Administration: program planning, development, implementation and evaluation, budgeting, administration, personnel management, quality improvement;

- Policy and Advocacy Skills: coalition building, the legislative process, policy analysis/development/enactment;
- Leadership and Systems Development Skills: organization and financing of MCH policies and programs, an MCH vision, service integration, strong interpersonal skills;
- Advanced Clinical and sub-specialty skills; and,
- Crosscutting issues: ethics, cultural competency, family-centered, community based, coordinated service systems.

A scale, ranging from 1 (“least important”) to 5 (“most important”), was used to record the responses. For each skill category, Table 5 provides the mean score for the reported perceived importance of graduate training. For all agency types, clinical skills were reported to be the least important of all graduate-level skills and the following skills categories were consistently ranked as the highest in terms of importance for graduate training:

- Leadership and Systems Development Skills;
- Program Management and Administration; and,
- Core Public Health Skills.

**Table 5**  
**Perceived Importance of Graduate Training in Specific Skills Areas by Agency Type**

<b>SKILL AREAS</b>	State MCH	State CSHCN	Local	Medicaid
Leadership and Systems Development Skills	91.3	85.7	84.4	64.3
Program Management and Administration	95.7	95.2	75.6	89.6
Core PH Skills	95.6	76.2	80.1	79.3
Data, Analytic, and Epidemiology Skills	95.6	71.5	66.3	79.3
Policy and Advocacy Skills	89.1	95.2	69.5	72.4
Cross-cutting issues	73.9	90.4	71.9	51.7
Scientific and Philosophical Basis	73.1	76.2	63.8	62.1
Clinical Skills	15.6	33.3	55.5	24.1

**Note:** Percentages indicate combines ratings of “4” and “5” on a scale of 1 (“least important”) to 5 (“most important”).

[Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

Respondents were asked the extent to which their agency was able to find qualified applicants possessing the skills that are critical to effectively serve the MCH population. The scale for recording the responses ranged from 1 (“easy to find”) to 5 (“unable to find”). Medicaid agencies reported the least difficulty finding potential employees with needed skills for open positions (Table 6). Roughly half of all State MCH, CSHCN, and Local agencies had some difficulty in finding skilled professionals. State CSHCN agencies appeared to have the most difficulty in finding professionals with needed skills; almost 16 percent of reporting CSHCN agencies were unable to find professionals with the needed skills.

**Table 6  
Mean Availability of Professionals with Needed Skills by Agency Type**

	<b>State MCH</b>	<b>State CSHCN</b>	<b>Local</b>	<b>Medicaid</b>
<b>Mean</b>	3.50	3.63	3.45	3.29
<b>Median</b>	4	4	4	3
<b>Mode</b>	4	3	4	3
<b>% “5” *</b>	4.5%	15.8%	10.0%	---
<b>% “4” and “5”</b>	54.5%	52.6%	52.1%	41.7%

(\* **Note:** Scale ranged from 1 (“easy to find”) to 5 (“unable to find”)

[Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

Respondents were also asked to indicate their agency’s unmet critical need for clinical and public health professionals with graduate-level education on a scale of 1-5, 1 being “least critical” and 5 being “most critical”. By agency type, Table 7 presents the combined percentage for values 4 and 5 (those indicating the highest two levels of unmet need) for clinical professionals. For MCH agencies, the highest unmet critical need areas for clinical graduate education were genetics (61.4%), dentistry (47.7%), health education (45.4%) nutrition (44.2%) and nursing (42.3%). For CSHCN agencies, the higher unmet clinical need areas were medicine (64.7%), dentistry (57.1%), nursing (55.5%), physical therapy (50%) and early childhood education (50%). Nursing was the highest clinical area of unmet need for Local agencies, followed by nutrition (46.4%) and health education (45.1%). Dentistry (61.9%), health education (50%) and nursing (45%) were the most prominent unmet clinical need areas for Medicaid agencies.

**Table 7  
Critical Unmet Need Areas for MCH Graduate Education**

Clinical Professionals and Skills	State MCH	State CSHCN	Local	Medicaid
Medicine	30.2%	64.7%	29.7%	25.0%
Physician Assistant	4.7%	---	10.6%	13.0%
Nurse Midwifery	16.3%	18.8%	19.1%	15.0%
Nurse Practitioner	18.6%	37.5%	39.9%	28.6%
Nursing	42.3%	55.5%	56.0%	45.0%
Genetics	61.4%	47.1%	24.8%	23.8%
Dentist	47.7%	57.1%	35.5%	61.9%
Audiology/Speech Pathology	16.7%	37.5%	13.7%	33.3%
Occupational Therapy	7.1%	43.8%	12.7%	16.6%
Physical Therapy	11.9%	50.0%	13.4%	21.7%
Psychology	20.4%	43.8%	16.4%	22.7%
Social Work	29.5%	47.1%	21.6%	40.9%
Early Childhood Education	34.0%	50.0%	25.0%	33.3%
Health Education	45.4%	31.3%	45.1%	50.0%

**Note:** Percentages indicate combined ratings of “4” and “5” on a scale of 1 (“least critical”) to 5 (“most critical”) [Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

Table 8 provides similar data for unmet critical needs for public health professionals with graduate education. MCH epidemiology was the greatest unmet need area for MCH, CSHCN, and Local agencies, whereas Medicaid’s greatest unmet area was health care administration. Other top public health professional need areas include public policy for State MCH, management for State CSHCN, and health care administration for Local agencies. A comparison of the level of critical unmet need between clinical and public health professional skill areas reveals that public health skills were ranked considerably higher than most of the clinical skill areas in terms of the need for graduate-level trained professionals.

**Table 8  
Critical Unmet Need Areas for MCH Graduate Education**

<b>Public Health Professional &amp; Skills</b>	<b>State MCH</b>	<b>State CSHCN</b>	<b>Local</b>	<b>Medicaid</b>
MCH Epidemiology	95.7%	66.6%	55.3%	57.1%
Management, Business Administration	62.3%	62.5%	40.4%	54.1%
Public Administration	53.3%	50.0%	32.3%	48.0%
Health care Administration	54.8%	58.8%	40.7%	82.6%
Public Policy	72.7%	37.5%	37.9%	58.3%

**Note:** Percentages indicate combines ratings of “4” and “5” on a scale of 1 (“least critical”) to 5  
[Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

For each agency type, Table 9 summarizes the top five critical unmet need areas for MCH professionals with a graduate education. These need areas refer to both the need for new staff and the need for professional development of existing staff. MCH epidemiology ranked among the top five for all agencies. CSHCN and Local agencies reported relatively more critical need for clinical professional skills, whereas MCH and Medicaid respondents reported more need for public health skills related to administration, management, and policy issues. Based on additional written entries made by respondents, graduates with grant writing, contract management, and information technology skills were also needed and were among those who were the most difficult to obtain.

**Table 9  
Top Five Critical Unmet Clinical and Public Health Professional Needs Areas for MCH Graduate Education by Agency Type**

<b>Rank</b>	<b>State MCH</b>	<b>State CSHCN</b>	<b>Local</b>	<b>Medicaid</b>
1	MCH Epidemiology	MCH Epidemiology	Nursing	Health Care Administration
2	Public Policy	Medicine	MCH Epidemiology	Dentist
3	Management, Business Administration	Management, Business Administration	Nutrition	Public Policy
4	Genetic Counseling	Health Care Administration	Health Education	MCH Epidemiology
5	Health Care Administration	Dentist	Health Care Administration	Management, Business Administration

[Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

In Table 10, the level of reported unmet need for professionals with specific public health graduate degrees is provided by agency type. More than 76 percent of responding MCH agencies and more than half of the other agencies reported it was a critical need to have employees with a general MPH. Over half of the MCH and CSHCN agencies desired MPH graduates with a MCH specialty. More than 40 percent of Local and Medicaid respondents viewed a MPH in MCH as a critical need as well.

**Table 10  
Critical Unmet Needs for Professionals with Specific Public Health Graduate Degrees  
by Agency Type**

	<b>State MCH</b>	<b>State CSHCN</b>	<b>Local</b>	<b>Medicaid</b>
<b>Public Health (MPH)</b>	76.1%	55.6%	52.8%	56.5%
<b>MPH specifically in MCH</b>	65.9%	58.8%	43.2%	45.0%

[Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

The respondents were then asked to assess the actual proportion of current staff that could use and benefit from graduate education, if money and access (time and distance) to graduate education were not obstacles. Over one-third of employees in every agency were seen as potentially benefiting (Table 11). Both MCH and CSHCN agencies reported the highest average percentage of employees that could benefit from graduate education (~45%).

**Table 11  
Percentage of Employees Perceived to Benefit from Graduate Education**

	<b>State MCH</b>	<b>State CSHCN</b>	<b>Local</b>	<b>Medicaid</b>
<b>Mean Proportion</b>	45.0%	44.5%	37.6%	35.7%
<b>Range</b>	5-100%	5-100%	0-100%	0-100%
<b>Median</b>	35.0%	40.0%	25.0%	25.0%
<b>25%- 75%</b>	25-72.5	22.5-50.0	10.0-50.0	5-55.0

[Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

Several factors were reported as preventing staff from pursuing graduate education (Table 12). The following categories were reported to be the most prohibitive barriers to graduate education by all responding agencies:

- The cost of graduate education programs;
- The loss of income while in school;
- The time required for completion of program.

**Table 12**  
**% of Respondents Perceiving Barriers to Pursuing Graduate Education by Agency Type**

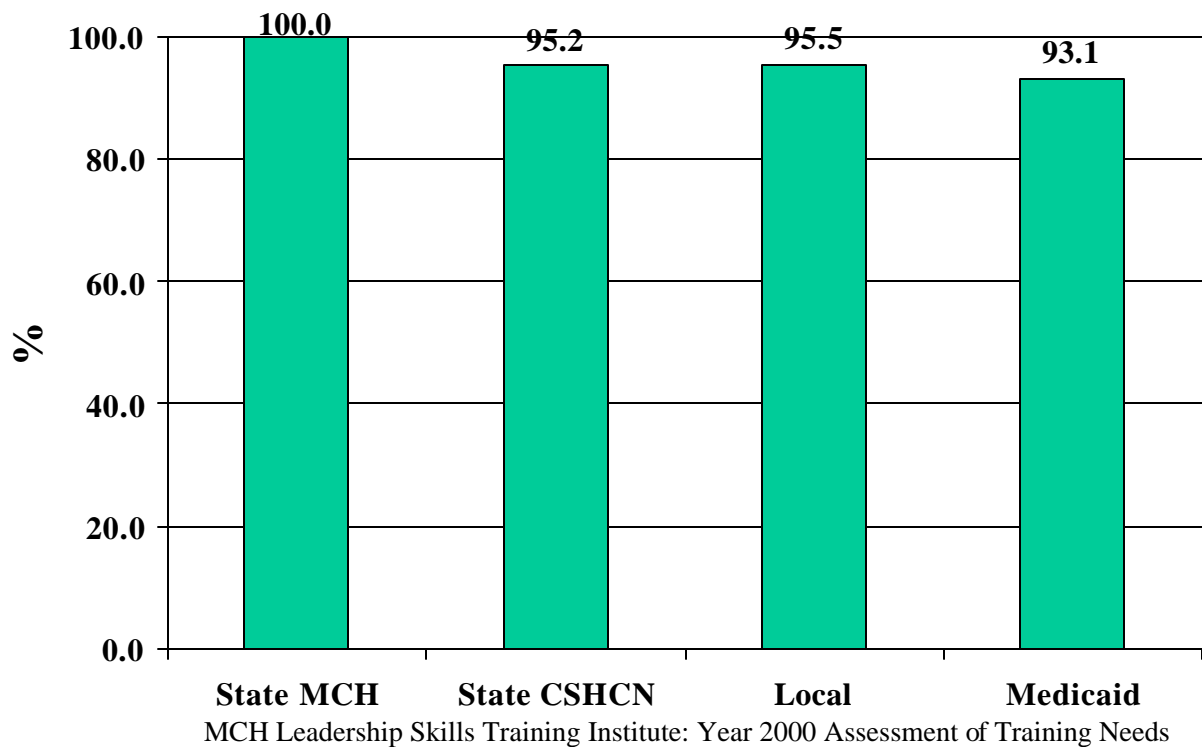
<b>Barriers</b>	<b>State MCH</b>	<b>State CSHCN</b>	<b>Local</b>	<b>Medicaid</b>
<b>Distance to GE program</b>	63.0%	68.2%	63.5%	23.3%
<b>Cost of GE program</b>	82.6%	90.9%	80.2%	73.3%
<b>Ability to take time off from work</b>	71.7%	86.4%	68.9%	56.7%
<b>Loss of income while in school</b>	80.4%	81.8%	71.3%	60.0%
<b>Time required to complete program</b>	76.1%	86.4%	61.7%	50.0%
<b>Training programs filled/waiting lists</b>	8.7%	22.7%	12.0%	3.3%
<b>Other factors</b>	15.2%	13.6%	7.2%	20.0%

[Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

## **Continuing Education Needs**

The remaining focus of the needs assessment was continuing education (CE). Respondents were asked to assess the extent to which members of their staff would benefit from participation in CE programs in MCH. As displayed in Figure 2, more than 90 percent of respondents from each agency type viewed continuing education as a benefit for their staff.

**Figure 2**  
**% Perceiving Continuing Education as a Benefit**



Respondents were then asked to assess the level of need for CE for particular staff levels, using a scale of 1 ("least") to 5 ("greatest") to record their response. The specific types of staff included: 1) agency/organization director, 2) program manager, and 3) program staff. Table 13 presents the percentage of perceived need for CE according to staff level. Regardless of agency type, well more than 50 percent of program managers and more than two-thirds of program staff were perceived to have a need for continuing education. The level of need for CE was less among directors, possibly reflecting that some of their need in this area has already been met. Nevertheless, one-third or more of agency directors were reported to be in need of continuing education programs in MCH.

**Table 13**  
**% of Respondents Perceiving Need for Continuing Education According to Staff Level**

	<b>State MCH</b>	<b>State CSHCN</b>	<b>Local</b>	<b>Medicaid</b>
<b>Agency/Organization Director</b>	38.6%	55.0%	46.6%	32.0%
<b>Program Manager</b>	80.4%	57.9%	77.3%	71.4%
<b>Program Staff</b>	91.1%	75.0%	80.7%	67.9%

[Data Source; MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

For State MCH agencies, Table 14 presents information regarding the perceived importance of specific CE topics by staff level. The percentages of responses with either a value of 4 or 5 (those indicating the highest two levels of importance for the topic) are provided for each topic. The need for CE in a specific topic varied considerably by staff level, e.g., CE in clinical skills was perceived as important for 15 percent of directors and 60 percent of program staff. Tables 15-17 provide the same information ranked for each staff level. In Table 15, which ranks CE topics by importance for MCH directors, the highest ranked topics are 'managing change', 'health care financing and delivery,' 'policy development and analysis,' and 'interagency collaboration.' Data, analytical, and clinical topics ranked toward the bottom of the list. However, a very different ranking was evident for MCH program managers (Table 16). For MCH program managers, the highest ranked CE topics were 'data analysis and interpretation,' 'program evaluation,' 'program planning/development,' 'needs assessment,' and 'marketing/communication.' For MCH program staff (Table 17), the highest ranked CE topics in order of perceived importance were 'cultural competency,' 'social marketing/health education,' family centered care,' 'families as partners,' 'community development/empowerment,' and 'quality assessment and assurance.'

**Table 14**  
**Perceived Importance of Continuing Education Topics**

<b>CE Topics for State MCH</b>	<b>Director</b>	<b>Manager</b>	<b>Staff</b>
Coalition Building	80	88.1	61
Community Development; Empowerment	75	83.8	72.5
Interagency Collaboration	90	90.9	57.5
Marketing and Communication	82	95.4	53.7
Media Relations	85	62.8	26.9
Public and Consumer Involvement	69.3	72.1	65.9
Resource Development	84.6	85.4	46.2
Systems Development	79.5	90.2	48.7
Families as Partners in Policy Making	68.3	76.7	73.1
Legislative Advocacy	85.7	60.4	25
Needs Assessment	77.5	95.4	63.4
Performance Measurement	85	93	58.5
Program Evaluation	82.5	97.6	50
Program Implementation, Management	67.5	95.2	52.5
Program Planning, Development	79.5	95.4	63.4
Cultural Competency	80	93	95.2
Managing Change	90.5	95.3	67.5
MCH Epidemiology	62.5	78.6	62.5
Negotiation and Team building	87.8	86.1	56.1
Personnel Management	84.6	85.7	12.9
Data Analysis and Interpretation	74.4	100	61
Data-base Development	27.5	52.4	55
Data-base Linkage	32.5	57.2	56.1
Information Systems	55	83.7	56.1
Qualitative Methods	51.3	61.4	46.3
Quality Assessment and Assurance	79.5	88.4	70.7
Environmental Health	27.5	21.4	26.8
Geographic Data Analysis	48.7	73.8	48.8
Social Marketing, Health Education	53.8	79.1	76.2
Surveillance, Health Status Monitoring	62.5	83.3	68.3
Survey Design and Administration	35	64.3	52.5
Cost-effectiveness Analysis	71.1	90.7	41.5
Funding Formula, Resource Allocations	84.6	85.7	26.2
Health Care Financing and Delivery	90.3	81	24.4
Policy Development and Analysis	90	95.3	30
Clinical Skills	15	7.3	59.6
Family-Centered Care	56.1	70.8	73.8

**Note:** Percentages indicate combined ratings of “4” and “5” on a scale of 1 (“least”) to 5 (“most important”)

[Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

**Table 15**  
**Perceived Importance of Continuing Education Topics**  
**State MCH Director**

<b>CE Topics for State MCH (Ranked From Greatest to Least)</b>	<b>Director</b>
Managing Change	90.5
Health Care Financing and Delivery	90.3
Policy Development and Analysis	90.0
Interagency Collaboration	90.0
Negotiation and Team building	87.8
Legislative Advocacy	85.7
Performance Measurement	85.0
Media Relations	85.0
Resource Development	84.6
Personnel Management	84.6
Funding Formula, Resource Allocations	84.6
Program Evaluation	82.5
Marketing and Communication	82.0
Cultural Competency	80.0
Coalition Building	80.0
Systems Development	79.5
Quality Assessment and Assurance	79.5
Program Planning, Development	79.5
Needs Assessment	77.5
Community Development; Empowerment	75.0
Data Analysis and Interpretation	74.4
Cost-effectiveness Analysis	71.1
Public and Consumer Involvement	69.3
Families as Partners in Policy Making	68.3
Program Implementation, Management	67.5
Surveillance, Health Status Monitoring	62.5
MCH Epidemiology	62.5
Family-Centered Care	56.1
Information Systems	55.0
Social Marketing, Health Education	53.8
Qualitative Methods	51.3
Geographic Data Analysis	48.7
Survey Design and Administration	35.0
Data-base Linkage	32.5
Environmental Health	27.5
Data-base Development	27.5
Clinical Skills	15.0

**Note:** Percentages indicate combined ratings of “4” and “5” on a scale of 1 (“least”) to 5 (“most important”)  
[Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

**Table 16**  
**Perceived Importance of Continuing Education Topics**  
**State MCH Program Manager**

<b>CE Topics for State MCH (Ranked from Greatest to least)</b>	<b>Manager</b>
Data Analysis and Interpretation	100
Program Evaluation	97.6
Program Planning, Development	95.4
Needs Assessment	95.4
Marketing and Communication	95.4
Policy Development and Analysis	95.3
Managing Change	95.3
Program Implementation, Management	95.2
Performance Measurement	93
Cultural Competency	93
Interagency Collaboration	90.9
Cost-effectiveness Analysis	90.7
Systems Development	90.2
Quality Assessment and Assurance	88.4
Coalition Building	88.1
Negotiation and Team building	86.1
Personnel Management	85.7
Funding Formula, Resource Allocations	85.7
Resource Development	85.4
Community Development; Empowerment	83.8
Information Systems	83.7
Surveillance, Health Status Monitoring	83.3
Health Care Financing and Delivery	81
Social Marketing, Health Education	79.1
MCH Epidemiology	78.6
Families as Partners in Policy Making	76.7
Geographic Data Analysis	73.8
Public and Consumer Involvement	72.1
Family-Centered Care	70.8
Survey Design and Administration	64.3
Media Relations	62.8
Qualitative Methods	61.4
Legislative Advocacy	60.4
Data-base Linkage	57.2
Data-base Development	52.4
Environmental Health	21.4
Clinical Skills	7.3

**Note:** Percentages indicate combined ratings of “4” and “5” on a scale of 1 (“least”) to 5 (“most important”)  
 [Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

**Table 17**  
**Perceived Importance of Continuing Education Topics**  
**State MCH Program Staff**

<b>CE Topics for State MCH (Ranked from Greatest to Least)</b>	<b>Staff</b>
Cultural Competency	95.2
Social Marketing, Health Education	76.2
Family-Centered Care	73.8
Families as Partners in Policy Making	73.1
Community Development; Empowerment	72.5
Quality Assessment and Assurance	70.7
Surveillance, Health Status Monitoring	68.3
Managing Change	67.5
Public and Consumer Involvement	65.9
Program Planning, Development	63.4
Needs Assessment	63.4
MCH Epidemiology	62.5
Data Analysis and Interpretation	61
Coalition Building	61
Clinical Skills	59.6
Performance Measurement	58.5
Interagency Collaboration	57.5
Negotiation and Team building	56.1
Information Systems	56.1
Data-base Linkage	56.1
Data-base Development	55
Marketing and Communication	53.7
Survey Design and Administration	52.5
Program Implementation, Management	52.5
Program Evaluation	50
Geographic Data Analysis	48.8
Systems Development	48.7
Qualitative Methods	46.3
Resource Development	46.2
Cost-effectiveness Analysis	41.5
Policy Development and Analysis	30
Media Relations	26.9
Environmental Health	26.8
Funding Formula, Resource Allocations	26.2
Legislative Advocacy	25
Health Care Financing and Delivery	24.4
Personnel Management	12.9

**Note:** Percentages indicate combined ratings of “4” and “5” on a scale of 1 (“least”) to 5 (“most important”)  
[Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

Tables 18-21 provide similar information for State CSHCN agencies. Table 18 presents information regarding the perceived importance of specific CE topics by staff level. The percentage of responses with either a value of 4 or 5 (those indicating the highest two levels of importance for the topic) is provided for each topic. As was found for MCH agencies, the need for CE in a specific topic varied considerably by staff level.

In Table 19, which ranks CE topics by importance for state CSHCN directors, the highest ranked topics are 'systems development,' 'personnel management,' and 'performance measurement.' MCH epidemiology, data, analytical, and clinical topics ranked toward the bottom of the list. For CSHCN program managers, clinical skills were also ranked as least important, while 'program implementation/management,' 'performance measurement,' 'program evaluation,' and 'families as partners in policy making' were ranked highest (Table 20). The highest ranked CE topics for CSHCN program staff were 'family centered care,' 'families as partners in policy making,' and 'cultural competency' (Table 21).

The importance of specific CE topics for Local health departments is provided in Tables 22-25. Using the same format as Tables 14 and 18, Table 22 presents the perceived importance of specific CE topics by staff level, while Tables 23-25 present the same information ranked for each staff level. In Table 23, which ranks CE topics by importance for Local health department directors, the highest ranked topics are 'policy development and analysis,' 'cost-effectiveness analysis,' and 'personnel management.' For Local health department program managers, 'program evaluation,' 'program implementation/management,' 'program planning/development,' 'negotiation & team building,' and 'personnel management' were ranked as the most important CE topics (Table 24). The highest ranked CE topics for Local health department program staff were 'clinical skills,' 'cultural competency,' and 'family centered care' (Table 25).

Tables 26-29 provide the results of the responses regarding the importance of specific CE topics for Medicaid agencies. Using the same format as Tables 14, 18 and 22, Table 26 presents the perceived importance of specific CE topics by staff level, while Tables 27-29 present this information ranked for each staff level. In Table 27, which ranks CE topics by importance for Medicaid directors, the highest ranked topics are 'health care financing and delivery,' 'interagency collaboration,' 'negotiation and team building,' and 'legislative advocacy.' For Medicaid program managers, 'performance measurement,' 'program evaluation,' 'program planning/development,' 'health care financing and delivery,' and 'data analysis and interpretation' were ranked as the most important CE topics (Table 28). The highest ranked CE topics for Medicaid program staff were 'cultural competency,' 'family centered care,' and 'program implementation/management' (Table 29).

**Table 18**  
**Perceived Importance of Continuing Education Topics**  
**State CSHCN**

<b>CE Topics for State CSHCN</b>	<b>Director</b>	<b>Manager</b>	<b>Staff</b>
Coalition Building	79	84.2	52.7
Community Development; Empowerment	73.8	63.1	70
Interagency Collaboration	89	88.9	73.7
Marketing and Communication	82.4	88.3	47.4
Media Relations	82.3	76.4	27.8
Public and Consumer Involvement	83.4	88.9	47.4
Resource Development	68.8	58.8	35.2
Systems Development	100	88.3	41.1
Families as Partners in Policy Making	94.5	94.5	94.7
Legislative Advocacy	76.4	55.5	27.8
Needs Assessment	88.3	94.4	50
Performance Measurement	100	100	42.1
Program Evaluation	88.9	94.5	47.4
Program Implementation, Management	83.4	100	30
Program Planning, Development	94.5	94.4	26.4
Cultural Competency	72.3	84.2	94.7
Managing Change	94.5	94.1	75
MCH Epidemiology	41.1	58.8	26.3
Negotiation and Team building	94.1	94.4	73.6
Personnel Management	100	94.4	11.1
Data Analysis and Interpretation	76.5	83.3	33.4
Data-base Development	41.1	68.4	41.2
Data-base Linkage	47	72.2	35.3
Information Systems	58.8	78.9	47.4
Qualitative Methods	70.6	83.3	22.3
Quality Assessment and Assurance	82.3	89.4	79
Environmental Health	29.4	27.8	23.5
Geographic Data Analysis	55.6	70.6	17.6
Social Marketing, Health Education	47	55.5	27.8
Surveillance, Health Status Monitoring	52.9	66.7	22.2
Survey Design and Administration	55.6	83.3	31.6
Cost-effectiveness Analysis	78.9	70	25
Funding Formula, Resource Allocations	89	77.8	11.1
Health Care Financing and Delivery	88.9	77.7	26.4
Policy Development and Analysis	94.1	94.4	16.7
Clinical Skills	11.1	26.4	84.2
Family-Centered Care	88.9	94.4	100

**Note:** Percentages indicate combined ratings of “4” and “5” on a scale of 1 (“least”) to 5 (“most important”)  
 [Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

**Table 19**  
**Perceived Importance of Continuing Education Topics**  
**State CSHCN Director**

<b>CE Topics for State CSHCN (Ranked from Greatest to Least)</b>	<b>Director</b>
Systems Development	100
Personnel Management	100
Performance Measurement	100
Program Planning, Development	94.5
Managing Change	94.5
Families as Partners in Policy Making	94.5
Policy Development and Analysis	94.1
Negotiation and Team building	94.1
Interagency Collaboration	89
Funding Formula, Resource Allocations	89
Program Evaluation	88.9
Health Care Financing and Delivery	88.9
Family-Centered Care	88.9
Needs Assessment	88.3
Public and Consumer Involvement	83.4
Program Implementation, Management	83.4
Marketing and Communication	82.4
Quality Assessment and Assurance	82.3
Media Relations	82.3
Coalition Building	79
Cost-effectiveness Analysis	78.9
Data Analysis and Interpretation	76.5
Legislative Advocacy	76.4
Community Development; Empowerment	73.8
Cultural Competency	72.3
Qualitative Methods	70.6
Resource Development	68.8
Information Systems	58.8
Survey Design and Administration	55.6
Geographic Data Analysis	55.6
Surveillance, Health Status Monitoring	52.9
Social Marketing, Health Education	47
Data-base Linkage	47
MCH Epidemiology	41.1
Data-base Development	41.1
Environmental Health	29.4
Clinical Skills	11.1

**Note:** Percentages indicate combined ratings of “4” and “5” on a scale of 1 (“least”) to 5 (“most important”)  
[Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

**Table 20**  
**Perceived Importance of Continuing Education Topics**  
**State CSHCN Program Manager**

<b>CE Topics for State CSHCN (Ranked from Greatest to Least)</b>	<b>Manager</b>
Program Implementation, Management	100
Performance Measurement	100
Program Evaluation	94.5
Families as Partners in Policy Making	94.5
Program Planning, Development	94.4
Policy Development and Analysis	94.4
Personnel Management	94.4
Negotiation and Team building	94.4
Needs Assessment	94.4
Family-Centered Care	94.4
Managing Change	94.1
Quality Assessment and Assurance	89.4
Public and Consumer Involvement	88.9
Interagency Collaboration	88.9
Systems Development	88.3
Marketing and Communication	88.3
Cultural Competency	84.2
Coalition Building	84.2
Survey Design and Administration	83.3
Qualitative Methods	83.3
Data Analysis and Interpretation	83.3
Information Systems	78.9
Funding Formula, Resource Allocations	77.8
Health Care Financing and Delivery	77.7
Media Relations	76.4
Data-base Linkage	72.2
Geographic Data Analysis	70.6
Cost-effectiveness Analysis	70
Data-base Development	68.4
Surveillance, Health Status Monitoring	66.7
Community Development; Empowerment	63.1
Resource Development	58.8
MCH Epidemiology	58.8
Social Marketing, Health Education	55.5
Legislative Advocacy	55.5
Environmental Health	27.8
Clinical Skills	26.4

**Note:** Percentages indicate combined ratings of “4” and “5” on a scale of 1 (“least”) to 5 (“most important”)  
[Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

**Table 21**  
**Perceived Importance of Continuing Education Topics**  
**State CSHCN Program Staff**

<b>CE Topics for State CSHCN (Ranked from Greatest to Least)</b>	<b>Staff</b>
Family-Centered Care	100
Families as Partners in Policy Making	94.7
Cultural Competency	94.7
Clinical Skills	84.2
Quality Assessment and Assurance	79
Managing Change	75
Interagency Collaboration	73.7
Negotiation and Team building	73.6
Community Development; Empowerment	70
Coalition Building	52.7
Needs Assessment	50
Public and Consumer Involvement	47.4
Program Evaluation	47.4
Marketing and Communication	47.4
Information Systems	47.4
Performance Measurement	42.1
Data-base Development	41.2
Systems Development	41.1
Data-base Linkage	35.3
Resource Development	35.2
Data Analysis and Interpretation	33.4
Survey Design and Administration	31.6
Program Implementation, Management	30
Social Marketing, Health Education	27.8
Media Relations	27.8
Legislative Advocacy	27.8
Program Planning, Development	26.4
Health Care Financing and Delivery	26.4
MCH Epidemiology	26.3
Cost-effectiveness Analysis	25
Environmental Health	23.5
Qualitative Methods	22.3
Surveillance, Health Status Monitoring	22.2
Geographic Data Analysis	17.6
Policy Development and Analysis	16.7
Personnel Management	11.1
Funding Formula, Resource Allocations	11.1

**Note:** Percentages indicate combined ratings of “4” and “5” on a scale of 1 (“least”) to 5 (“most important”)  
[Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

**Table 22**  
**Perceived Importance of Continuing Education Topics**  
**Local Health Departments**

<b>CE Topics for Local</b>	<b>Director</b>	<b>Manager</b>	<b>Staff</b>
Coalition Building	82.2	80.3	36.5
Community Development; Empowerment	84.3	75	34.1
Interagency Collaboration	79.2	79	51.2
Marketing and Communication	79.2	75.8	40.7
Media Relations	81.5	66.1	24.6
Public and Consumer Involvement	69.4	74.1	42.3
Resource Development	72.3	70.6	29.7
Systems Development	73.4	63.2	15.8
Families as Partners in Policy Making	55.2	61.2	54
Legislative Advocacy	73.8	58.7	20.5
Needs Assessment	77.8	81.8	51.6
Performance Measurement	82.5	84.7	34.6
Program Evaluation	77.6	90.1	33.8
Program Implementation, Management	70.4	89.2	31.4
Program Planning, Development	80	88.4	26.4
Cultural Competency	58.4	76.7	79
Managing Change	82.5	84.2	60
MCH Epidemiology	56	69.7	41.2
Negotiation and Team building	84.3	87.5	52.4
Personnel Management	86.4	87.3	14.6
Data Analysis and Interpretation	79	78.5	18.6
Data-base Development	51.3	57.2	22
Data-base Linkage	53.4	53.9	24.6
Information Systems	71.4	70.4	37.1
Qualitative Methods	64.3	64.2	28.2
Quality Assessment and Assurance	76.5	80.5	50
Environmental Health	52	46.2	40.5
Geographic Data Analysis	67.5	62.4	17.9
Social Marketing, Health Education	57.9	70.2	50
Surveillance, Health Status Monitoring	64.8	67.7	40.7
Survey Design and Administration	67.7	56.2	21.1
Cost-effectiveness Analysis	87.3	75.9	19.5
Funding Formula, Resource Allocations	83.8	68.9	12
Health Care Financing and Delivery	80.9	57.3	10.5
Policy Development and Analysis	88.4	78.2	12.9
Clinical Skills	20.7	55.2	88.7
Family-Centered Care	48.4	69.2	72.3

**Note:** Percentages indicate combined ratings of "4" and "5" on a scale of 1 ("least") to 5 ("most important")  
[Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

**Table 23**  
**Perceived Importance of Continuing Education Topics**  
**Local Director**

<b>CE Topics for Local (Ranked from Greatest to Least)</b>	<b>Director</b>
Policy Development and Analysis	88.4
Cost-effectiveness Analysis	87.3
Personnel Management	86.4
Negotiation and Team building	84.3
Community Development; Empowerment	84.3
Funding Formula, Resource Allocations	83.8
Performance Measurement	82.5
Managing Change	82.5
Coalition Building	82.2
Media Relations	81.5
Health Care Financing and Delivery	80.9
Program Planning, Development	80
Marketing and Communication	79.2
Interagency Collaboration	79.2
Data Analysis and Interpretation	79
Needs Assessment	77.8
Program Evaluation	77.6
Quality Assessment and Assurance	76.5
Legislative Advocacy	73.8
Systems Development	73.4
Resource Development	72.3
Information Systems	71.4
Program Implementation, Management	70.4
Public and Consumer Involvement	69.4
Survey Design and Administration	67.7
Geographic Data Analysis	67.5
Surveillance, Health Status Monitoring	64.8
Qualitative Methods	64.3
Cultural Competency	58.4
Social Marketing, Health Education	57.9
MCH Epidemiology	56
Families as Partners in Policy Making	55.2
Data-base Linkage	53.4
Environmental Health	52
Data-base Development	51.3
Family-Centered Care	48.4
Clinical Skills	20.7

**Note:** Percentages indicate combined ratings of "4" and "5" on a scale of 1 ("least") to 5 ("most important")

[Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

**Table 24**  
**Perceived Importance of Continuing Education Topics**  
**Local Program Manager**

<b>CE Topics for Local (Ranked from Greatest to Least)</b>	<b>Manager</b>
Program Evaluation	90.1
Program Implementation, Management	89.2
Program Planning, Development	88.4
Negotiation and Team building	87.5
Personnel Management	87.3
Performance Measurement	84.7
Managing Change	84.2
Needs Assessment	81.8
Quality Assessment and Assurance	80.5
Coalition Building	80.3
Interagency Collaboration	79
Data Analysis and Interpretation	78.5
Policy Development and Analysis	78.2
Cultural Competency	76.7
Cost-effectiveness Analysis	75.9
Marketing and Communication	75.8
Community Development; Empowerment	75
Public and Consumer Involvement	74.1
Resource Development	70.6
Information Systems	70.4
Social Marketing, Health Education	70.2
MCH Epidemiology	69.7
Family-Centered Care	69.2
Funding Formula, Resource Allocations	68.9
Surveillance, Health Status Monitoring	67.7
Media Relations	66.1
Qualitative Methods	64.2
Systems Development	63.2
Geographic Data Analysis	62.4
Families as Partners in Policy Making	61.2
Legislative Advocacy	58.7
Health Care Financing and Delivery	57.3
Data-base Development	57.2
Survey Design and Administration	56.2
Clinical Skills	55.2
Data-base Linkage	53.9
Environmental Health	46.2

**Note:** Percentages indicate combined ratings of “4” and “5” on a scale of 1 (“least”) to 5 (“most important”)  
 [Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

**Table 25**  
**Perceived Importance of Continuing Education Topics**  
**Local Program Staff**

CE Topics for Local	Staff
Clinical Skills	88.7
Cultural Competency	79
Family-Centered Care	72.3
Managing Change	60
Families as Partners in Policy Making	54
Negotiation and Team building	52.4
Needs Assessment	51.6
Interagency Collaboration	51.2
Social Marketing, Health Education	50
Quality Assessment and Assurance	50
Public and Consumer Involvement	42.3
MCH Epidemiology	41.2
Surveillance, Health Status Monitoring	40.7
Marketing and Communication	40.7
Environmental Health	40.5
Information Systems	37.1
Coalition Building	36.5
Performance Measurement	34.6
Community Development; Empowerment	34.1
Program Evaluation	33.8
Program Implementation, Management	31.4
Resource Development	29.7
Qualitative Methods	28.2
Program Planning, Development	26.4
Media Relations	24.6
Data-base Linkage	24.6
Data-base Development	22
Survey Design and Administration	21.1
Legislative Advocacy	20.5
Cost-effectiveness Analysis	19.5
Data Analysis and Interpretation	18.6
Geographic Data Analysis	17.9
Systems Development	15.8
Personnel Management	14.6
Policy Development and Analysis	12.9
Funding Formula, Resource Allocations	12
Health Care Financing and Delivery	10.5

**Note:** Percentages indicate combined ratings of “4” and “5” on a scale of 1 (“least”) to 5 (“most important”)  
[Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

**Table 26**  
**Perceived Importance of Continuing Education Topics**  
**Medicaid**

<b>CE Topics for Medicaid</b>	<b>Director</b>	<b>Manager</b>	<b>Staff</b>
Coalition Building	72.8	72	45.9
Community Development; Empowerment	52.4	64	33.3
Interagency Collaboration	95.5	84	45.9
Marketing and Communication	61.9	60	39.1
Media Relations	72.7	38.4	0
Public and Consumer Involvement	81	72	41.7
Resource Development	57.2	56	37.5
Systems Development	42.8	56.4	34.8
Families as Partners in Policy Making	42.9	58.3	32
Legislative Advocacy	81.8	56	9
Needs Assessment	40.9	72	54.2
Performance Measurement	77.3	96.1	58.3
Program Evaluation	70	92	57.6
Program Implementation, Management	50	84.6	64
Program Planning, Development	65	88.4	50
Cultural Competency	47.6	70.8	72
Managing Change	73.9	76	54.2
MCH Epidemiology	23.8	50.1	24
Negotiation and Team building	82.6	76	52.1
Personnel Management	72.7	73.1	4.3
Data Analysis and Interpretation	68.2	88	41.7
Data-base Development	23.8	62.5	52
Data-base Linkage	23.8	50	40
Information Systems	57.1	64	52
Qualitative Methods	65	75	43.4
Quality Assessment and Assurance	81	76	50
Environmental Health	14.3	16.7	16.7
Geographic Data Analysis	55	62.5	41.7
Social Marketing, Health Education	23.8	56	44
Surveillance, Health Status Monitoring	42.8	62.5	47.7
Survey Design and Administration	19	54.2	48
Cost-effectiveness Analysis	61.9	60	25
Funding Formula, Resource Allocations	80.9	68	17.4
Health Care Financing and Delivery	100	88.4	34.7
Policy Development and Analysis	80.9	84.6	46.2
Clinical Skills	14.3	26	45.8
Family-Centered Care	40	60.8	68

**Note:** Percentages indicate combined ratings of "4" and "5" on a scale of 1 ("least") to 5 ("most important")  
[Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

**Table 27**  
**Perceived Importance of Continuing Education Topics**  
**Medicaid Director**

<b>CE Topics for Medicaid (Ranked from Greatest to Least)</b>	<b>Director</b>
Health Care Financing and Delivery	100
Interagency Collaboration	95.5
Negotiation and Team building	82.6
Legislative Advocacy	81.8
Quality Assessment and Assurance	81
Public and Consumer Involvement	81
Policy Development and Analysis	80.9
Funding Formula, Resource Allocations	80.9
Performance Measurement	77.3
Managing Change	73.9
Coalition Building	72.8
Personnel Management	72.7
Media Relations	72.7
Program Evaluation	70
Data Analysis and Interpretation	68.2
Qualitative Methods	65
Program Planning, Development	65
Marketing and Communication	61.9
Cost-effectiveness Analysis	61.9
Resource Development	57.2
Information Systems	57.1
Geographic Data Analysis	55
Community Development; Empowerment	52.4
Program Implementation, Management	50
Cultural Competency	47.6
Families as Partners in Policy Making	42.9
Systems Development	42.8
Surveillance, Health Status Monitoring	42.8
Needs Assessment	40.9
Family-Centered Care	40
Social Marketing, Health Education	23.8
MCH Epidemiology	23.8
Data-base Linkage	23.8
Data-base Development	23.8
Survey Design and Administration	19
Environmental Health	14.3
Clinical Skills	14.3

**Note:** Percentages indicate combined ratings of “4” and “5” on a scale of 1 (“least”) to 5 (“most important”)  
 [Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

**Table 28**  
**Perceived Importance of Continuing Education Topics**  
**Medicaid Program Manager**

<b>CE Topics for Medicaid (Ranked from Greatest to Least)</b>	<b>Manager</b>
Performance Measurement	96.1
Program Evaluation	92
Program Planning, Development	88.4
Health Care Financing and Delivery	88.4
Data Analysis and Interpretation	88
Program Implementation, Management	84.6
Policy Development and Analysis	84.6
Interagency Collaboration	84
Quality Assessment and Assurance	76
Negotiation and Team building	76
Managing Change	76
Qualitative Methods	75
Personnel Management	73.1
Public and Consumer Involvement	72
Needs Assessment	72
Coalition Building	72
Cultural Competency	70.8
Funding Formula, Resource Allocations	68
Information Systems	64
Community Development; Empowerment	64
Surveillance, Health Status Monitoring	62.5
Geographic Data Analysis	62.5
Data-base Development	62.5
Family-Centered Care	60.8
Marketing and Communication	60
Cost-effectiveness Analysis	60
Families as Partners in Policy Making	58.3
Systems Development	56.4
Social Marketing, Health Education	56
Resource Development	56
Legislative Advocacy	56
Survey Design and Administration	54.2
MCH Epidemiology	50.1
Data-base Linkage	50
Media Relations	38.4
Clinical Skills	26
Environmental Health	16.7

**Note:** Percentages indicate combined ratings of “4” and “5” on a scale of 1 (“least”) to 5 (“most important”)  
 [Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

**Table 29**  
**Perceived Importance of Continuing Education Topics**  
**Medicaid Program Staff**

<b>CE Topics for Medicaid (Ranked from Greatest to Least)</b>	<b>Staff</b>
Cultural Competency	72
Family-Centered Care	68
Program Implementation, Management	64
Performance Measurement	58.3
Program Evaluation	57.6
Needs Assessment	54.2
Managing Change	54.2
Negotiation and Team building	52.1
Information Systems	52
Data-base Development	52
Quality Assessment and Assurance	50
Program Planning, Development	50
Survey Design and Administration	48
Surveillance, Health Status Monitoring	47.7
Policy Development and Analysis	46.2
Interagency Collaboration	45.9
Coalition Building	45.9
Clinical Skills	45.8
Social Marketing, Health Education	44
Qualitative Methods	43.4
Public and Consumer Involvement	41.7
Geographic Data Analysis	41.7
Data Analysis and Interpretation	41.7
Data-base Linkage	40
Marketing and Communication	39.1
Resource Development	37.5
Systems Development	34.8
Health Care Financing and Delivery	34.7
Community Development; Empowerment	33.3
Families as Partners in Policy Making	32
Cost-effectiveness Analysis	25
MCH Epidemiology	24
Funding Formula, Resource Allocations	17.4
Environmental Health	16.7
Legislative Advocacy	9
Personnel Management	4.3
Media Relations	0

**Note:** Percentages indicate combined ratings of “4” and “5” on a scale of 1 (“least”) to 5 (“most important”)  
 [Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

Contrasting by agency type the CE topics perceived to be of highest importance, Tables 30-32 summarize the findings presented in Tables 14-29. The CE topics of highest importance for agency directors are presented in Table 30. For agency directors, similar leadership, systems development and administrative CE themes emerge across all agencies, including health care financing, policy development, interagency and systems-level collaboration, managing change and performance, team building, negotiations, personnel management, and working with families, communities, the public, and legislative bodies. Program management and administrative themes are the most important CE topics for program managers and include program planning, development, implementation, management and evaluation, needs assessment, performance management, data analysis and interpretation, personnel management, team building and policy development (Table 31). For program staff, the most important themes for CE topics tend to be more direct service and program performance oriented and include cultural competency, family centered care, families as partners, clinical skills, and program evaluation, performance and management (Table 32).

**Table 30**  
**Perceived Importance of Continuing Education Topics**  
**Directors**

<b>State MCH</b>	<b>State CSHCN</b>	<b>Local</b>	<b>Medicaid</b>
Managing Change	Systems Development	Policy Development and Analysis	Health Care Financing and Delivery
Health Care Financing and Delivery	Personnel Management	Cost-effectiveness Analysis	Interagency Collaboration
Policy Development and Analysis	Performance Measurement	Personnel Management	Negotiation and Team building
Interagency Collaboration	Program Planning, Development	Negotiation and Team building	Legislative Advocacy
Negotiation and Team building	Managing Change	Community Development; Empowerment	Quality Assessment and Assurance
	Families as Partners in Policy Making		Public and Consumer Involvement

[Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

**Table 31**  
**Perceived Importance of Continuing Education Topics**

**Program Managers**

<b>State MCH</b>	<b>State CSHCN</b>	<b>Local</b>	<b>Medicaid</b>
Data Analysis and Interpretation	Program Implementation, Management	Program Evaluation	Performance Measurement
Program Evaluation	Performance Measurement	Program Implementation, Management	Program Evaluation
Program Planning, Development	Program Evaluation	Program Planning, Development	Program Planning, Development
Needs Assessment	Families as Partners in Policy Making	Negotiation and Team building	Health Care Financing and Delivery
Marketing and Communication	Program Planning, Development	Personnel Management	Data Analysis and Interpretation
Policy Development and Analysis	Policy Development and Analysis		
Managing Change	Personnel Management		
	Negotiation and Team building		
	Needs Assessment		
	Family-Centered Care		

[Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

**Table 32**  
**Perceived Importance of Continuing Education Topics**

**Program Staff**

<b>State MCH</b>	<b>State CSHCN</b>	<b>Local</b>	<b>Medicaid</b>
Cultural Competency	Family-Centered Care	Clinical Skills	Cultural Competency
Social Marketing, Health Education	Families as Partners in Policy Making	Cultural Competency	Family-Centered Care
Family-Centered Care	Cultural Competency	Family-Centered Care	Program Implementation, Management
Families as Partners in Policy Making	Clinical Skills	Managing Change	Performance Measurement
Community Development; Empowerment	Quality Assessment and Assurance	Families as Partners in Policy Making	Program Evaluation

[Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

As collaboration with other agencies and organizations is an essential component of the work of MCH, CSHCN and Local health agencies, it was deemed of value to request information from respondents regarding: 1) what MCH-related agencies and their personnel need to know about other agencies with which they collaborate, and 2) what those collaborating agencies need to know about MCH. Tables 33-36 provide information regarding the first question: what do MCH-related agencies need to know about other agencies? For specific continuing education topics related to the operations of other agencies, Table 33 provides the responses to the question of how useful would be this specific information about other agencies to MCH professionals by type of MCH agencies, i.e., state MCH, state CSHCN and Local health department. The responses were recorded on a scale of 1 (“least useful”) to 5 (“most useful”). The percentage of responses with either a value of 4 or 5 (those indicating the highest two levels of usefulness for the topic) is provided in Table 33 for each topic by MCH-related agency type. Tables 34-36 present this information ranked for agency type.

**Table 33**  
**% Perceived Usefulness to MCH-Related Agencies**  
**of Specific CE Topics about Other Agencies**

Topics	State MCH	State CSHCN	Local
Current program and policy priorities	95.7	85.7	85.3
Data systems, client or target population information gathered, needs assessments	87	85.8	73.3
Funding streams and allowable expenditures	66.7	70	50
Mission, goals and objectives	82.2	70	70.3
Organizational structures, staffing patterns	33.3	45	32.9
Relationship to other related programs or agencies	69.5	70	61.9
Service delivery capacity; size of client population; geographic service areas	75.6	70	77
Statutory basis and regulations, federal	43.5	55	38.5
Statutory basis and regulations, state	48.9	50	39.8
Underlying philosophy, theory or history	47.8	45	35.8
How to access and utilize the services they offer	78.2	90.5	92.7
How to refer clients or families to them	77.2	90	93.3

**Note:** Percentages indicate combined ratings of “4” and “5” on a scale of 1 (“least”) to 5 (“most useful”)

[Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

As shown in Table 34, the respondents indicated that it would be useful for state MCH agencies to have more continuing education on the programs and policies of other agencies, as well as, on their data systems, needs assessments and their mission, goals and objectives.

**Table 34**  
**% Perceived Usefulness to State MCH Agencies**  
**of Specific CE Topics about Other Agencies**

Topics	State MCH
Current program and policy priorities	95.7
Data systems, client or target population information gathered, needs assessments	87
Mission, goals and objectives	82.2
How to access and utilize the services they offer	78.2
How to refer clients or families to them	77.2
Service delivery capacity; size of client population; geographic service areas	75.6
Relationship to other related programs or agencies	69.5
Funding streams and allowable expenditures	66.7
Statutory basis and regulations, state	48.9
Underlying philosophy, theory or history	47.8
Statutory basis and regulations, federal	43.5
Organizational structures, staffing patterns	33.3

**Note:** Percentages indicate combined ratings of "4" and "5" on a scale of 1 ("least") to 5 ("most useful")  
 [Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

State CSHCN and Local agencies perceived it would be useful to have more continuing education on how to access, utilize and refer patients to the services of other agencies, as well as, on their programs, policies, data systems and, needs assessments (Tables 35-36).

**Table 35**  
**% Perceived Usefulness to CSHCN Agencies**  
**of Specific CE Topics about Other Agencies**

Topics	State CSHCN
How to access and utilize the services they offer	90.5
How to refer clients or families to them	90
Data systems, client or target population information gathered, needs assessments	85.8
Current program and policy priorities	85.7
Service delivery capacity; size of client population; geographic service areas	70
Relationship to other related programs or agencies	70
Mission, goals and objectives	70
Funding streams and allowable expenditures	70
Statutory basis and regulations, federal	55
Statutory basis and regulations, state	50
Underlying philosophy, theory or history	45
Organizational structures, staffing patterns	45

**Note:** Percentages indicate combined ratings of “4” and “5” on a scale of 1 (“least”) to 5 (“most useful”)  
 [Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

**Table 36**  
**% Perceived Usefulness to Local Agencies**  
**of Specific CE Topics about Other Agencies**

Topics	Local
How to refer clients or families to them	93.3
How to access and utilize the services they offer	92.7
Current program and policy priorities	85.3
Service delivery capacity; size of client population; geographic service areas	77
Data systems, client or target population information gathered, needs assessments	73.3
Mission, goals and objectives	70.3
Relationship to other related programs or agencies	61.9
Funding streams and allowable expenditures	50
Statutory basis and regulations, state	39.8
Statutory basis and regulations, federal	38.5
Underlying philosophy, theory or history	35.8
Organizational structures, staffing patterns	32.9

**Note:** Percentages indicate combined ratings of “4” and “5” on a scale of 1 (“least”) to 5 (“most useful”)  
 [Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

Tables 37-40 provide information regarding the next question: what do other agencies need to know about MCH-related agencies? Table 37 indicates what the respondents of each MCH-related agency type perceive as the usefulness of specific topic information for other agencies. The responses were also recorded on a scale of 1 (“least useful”) to 5 (“most useful”). The percentage of responses with either a value of 4 or 5 (those indicating the highest two levels of usefulness for the topic) is provided in Tables 37-40. Tables 38-40 present this information ranked for each agency type. State MCH, CSHCN and Local agencies all perceive it would be useful for other agencies to be aware of their current programs, policy priorities, data systems, needs assessments, and service access and utilization procedures (Tables 38-40).

**Table 37**  
**% Perceived Usefulness to Other Agencies and Organizations**  
**of CE about MCH-Related Agencies**

Topics	State MCH	State CSHCN	Local
Current program and policy priorities	97.8	90	85.6
Data systems, client or target population information gathered, needs assessments	88.9	90	66
Funding streams and allowable expenditures	63.6	73.7	39.8
Mission, goals and objectives	79.5	78.9	70.7
Organizational structures, staffing patterns	36.3	57.9	25.5
Relationship to other related programs or agencies	68.1	73.7	64.2
Service delivery capacity; size of client population; geographic service areas	73.4	78.9	76.4
Statutory basis and regulations, federal	44.4	63.1	38.7
Statutory basis and regulations, state	38.6	57.9	40.8
Underlying philosophy, theory or history	46.5	63.1	39
How to access and utilize the services they offer	82.2	100	96.5
How to refer clients or families to them	77.3	94.4	95.6

**Note:** Percentages indicate combined ratings of “4” and “5” on a scale of 1 (“least”) to 5 (“most useful”) [Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

**Table 38**  
**% Perceived Usefulness to Other Agencies and Organizations**  
**of CE about MCH-Related Agencies**

Topics	State MCH
Current program and policy priorities	97.8
Data systems, client or target population information gathered, needs assessments	88.9
How to access and utilize the services they offer	82.2
Mission, goals and objectives	79.5
How to refer clients or families to them	77.3
Service delivery capacity; size of client population; geographic service areas	73.4
Relationship to other related programs or agencies	68.1
Funding streams and allowable expenditures	63.6
Underlying philosophy, theory or history	46.5
Statutory basis and regulations, federal	44.4
Statutory basis and regulations, state	38.6
Organizational structures, staffing patterns	36.3

**Note:** Percentages indicate combined ratings of “4” and “5” on a scale of 1 (“least”) to 5 (“most useful”)  
 [Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

**Table 39**  
**% Perceived Usefulness to Other Agencies and Organizations**  
**of CE about MCH-Related Agencies**

Topics	State CSHCN
How to access and utilize the services they offer	100
How to refer clients or families to them	94.4
Data systems, client or target population information gathered, needs assessments	90
Current program and policy priorities	90
Service delivery capacity; size of client population; geographic service areas	78.9
Mission, goals and objectives	78.9
Relationship to other related programs or agencies	73.7
Funding streams and allowable expenditures	73.7
Underlying philosophy, theory or history	63.1
Statutory basis and regulations, federal	63.1
Statutory basis and regulations, state	57.9
Organizational structures, staffing patterns	57.9

**Note:** Percentages indicate combined ratings of “4” and “5” on a scale of 1 (“least”) to 5 (“most useful”)  
 [Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

**Table 40**  
**% Perceived Usefulness to Other Agencies and Organizations**  
**of CE about MCH-Related Agencies**

Topics	Local
How to access and utilize the services they offer	96.5
How to refer clients or families to them	95.6
Current program and policy priorities	85.6
Service delivery capacity; size of client population; geographic service areas	76.4
Mission, goals and objectives	70.7
Data systems, client or target population information gathered, needs assessments	66
Relationship to other related programs or agencies	64.2
Statutory basis and regulations, state	40.8
Funding streams and allowable expenditures	39.8
Underlying philosophy, theory or history	39
Statutory basis and regulations, federal	38.7
Organizational structures, staffing patterns	25.5

**Note:** Percentages indicate combined ratings of “4” and “5” on a scale of 1 (“least”) to 5 (“most useful”)  
 [Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

The respondents from Medicaid agencies were also asked the above two questions regarding the usefulness to know about other agencies and for other agencies to know about them. Table 41, using the same format as the previous tables on this topic, reveals that the Medicaid respondents felt it was useful to learn more about the programs and policy priorities of MCH-related agencies and to learn more about how to access and utilize their services.

**Table 41**  
**% Perceived Usefulness to Medicaid Agencies of CE about MCH-Related Agencies**

Topics	Medicaid
Current program and policy priorities	84.7
How to access and utilize the services they offer	80.8
How to refer clients or families to them	76.9
Data systems, client or target population information gathered, needs assessments	74
Relationship to other related programs or agencies	65.4
Mission, goals and objectives	65.4
Funding streams and allowable expenditures	61.6
Service delivery capacity; size of client population; geographic service areas	57.7
Statutory basis and regulations, federal	48.1
Statutory basis and regulations, state	44.4
Underlying philosophy, theory or history	42.3
Organizational structures, staffing patterns	23

**Note:** Percentages indicate combined ratings of “4” and “5” on a scale of 1 (“least”) to 5 (“most useful”)  
 [Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

These respondents also indicated the usefulness of MCH-related agencies learning more about their programs and policies and how to refer clients to them (Table 42).

**Table 42**  
**% Perceived Usefulness to MCH-Related Agencies of CE about Medicaid Agencies**

<b>Topics</b>	<b>Medicaid</b>
Current program and policy priorities	96.1
How to refer clients or families to them	79.2
How to access and utilize the services they offer	76
Funding streams and allowable expenditures	72
Service delivery capacity; size of client population; geographic service areas	64
Mission, goals and objectives	60
Relationship to other related programs or agencies	56
Data systems, client or target population information gathered, needs assessments	53.8
Underlying philosophy, theory or history	40
Statutory basis and regulations, federal	37.5
Statutory basis and regulations, state	33.4
Organizational structures, staffing patterns	20

**Note:** Percentages indicate combined ratings of "4" and "5" on a scale of 1 ("least") to 5 ("most useful")

[Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

## **Modalities for Continuing Education**

In the current environment, there are many methods through which MCH professionals can receive continuing education. The respondents were asked to consider a variety of continuing education modalities and were asked to rank those modalities according to their interest, their agency's capacity to use, and their preference. Their responses were recorded on a scale ranging from 1 ("least") to 5 ("most"). The percentage of responses with either a value of 4 or 5 (those indicating the highest two levels of interest, capacity and preference for the modality) is provided in Tables 43-45 by agency type.

By agency type, Table 43 presents the respondents' perceptions in terms of interest in the various proposed modalities of continuing education. Overall, the most interest was reported for providing on-site CE at the workplace, followed closely by in-state conferences, small (<100 participant) conferences, distance satellite/interactive TV, and Internet or Web-based distance learning. State MCH agencies reported considerably more interest in Internet distance learning modalities than the other agencies. None of the agencies reported much interest in the use of audio or videocassettes. Very modest interest was reported for audio teleconferencing, and large and out-of-state conferences.

**Table 43**  
**% Perceived Interest of Continuing Education Modality**

<b>Modality of Interest</b>	<b>State MCH</b>	<b>State CSHCN</b>	<b>Local</b>	<b>Medicaid</b>	<b>Total</b>
On-site at the workplace	90.4	71.4	77.5	62.9	75.6
In-state conference	82.9	71.4	61.4	66.7	70.6
Small conference (<100)	80.5	70.0	66.9	62.5	70.0
Out-of-state conference	42.9	47.6	21.7	29.2	35.4
Large conference (>100)	31.7	35.0	23.6	21.7	28.0
Distance: internet, Web-based	81.0	57.1	66.5	64.0	67.2
Distance: satellite/interactive TV	77.3	70.0	72.9	64.0	71.1
Self-study/Independent study	50.0	35.3	34.8	25.0	36.3
Reading journals/research papers	38.1	28.5	25.7	29.2	30.4
Coursework for credit at college	53.5	38.1	51.0	37.4	45.0
Audio cassettes	24.4	9.5	13.7	0.0	37.2
Video cassettes	19.1	23.8	42.7	25.1	37.5
Audio, teleconferencing	47.6	38.1	28.9	33.4	39.9

**Note:** Percentages indicate combined ratings of "4" and "5" on a scale of 1 ("least") to 5 ("most interest")  
[Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

The agency capacity for different CE modalities is reported in Table 44. The majority of respondents, including Local agencies, report having the capacity for on-site, in-state, small conferences, as well as, having the capacity for distance Internet learning. In particular, more than three-quarters of the respondents report having Web access and more than two-thirds report having agency approval to use the Web for CE instruction during working hours. There is also a relative high capacity for using audio conferencing and cassettes.

**Table 44**  
**% Perceived Capacity of Continuing Education Modality**

<b>Capacity for Modality</b>	<b>State MCH</b>	<b>State CSHCN</b>	<b>Local</b>	<b>Medicaid</b>	<b>Total</b>
On-site at the workplace	80.0	65.0	75.5	73.9	73.6
In-state conference	75.5	63.1	54.4	66.7	64.9
Small conference (<100)	69.1	50.1	59.4	70.0	62.2
Large conference (>100)	44.2	43.8	29.0	45.0	40.5
Out-of-state conference	22.2	23.6	5.4	20.0	17.8
Distance: internet, Web-based	84.0	70.0	59.1	71.5	71.2
Distance: satellite/interactive TV	76.1	52.7	57.6	28.6	53.8
Web Access	95.5	90.5	81.0	77.8	86.2
Web Instruction	92.5	94.4	70.3	68.4	81.4
Audio, teleconferencing	93.4	95.0	63.0	80.0	82.9
Video cassettes	91.1	95.0	83.9	61.9	83.0
Audio cassettes	86.4	84.2	48.9	55.0	68.6
Reading journals or research papers	67.4	73.7	45.4	70.0	64.1
Self-study/Independent study	66.0	73.7	55.7	70.0	66.4
Coursework for credit at college	28.0	52.7	33.1	35.0	37.2

**Note:** Percentages indicate combined ratings of "4" and "5" on a scale of 1 ("least") to 5 ("most capacity")

[Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

Perceived preference of continuing education modalities is presented in Table 45. In-state conferences, on-site conferences at the workplace and small conferences (<100 participants) were the most preferred methods of CE overall. Local agencies also indicated a preference for distance satellite/interactive TV. Internet and Web-based CE followed next in order of preference. None of the other modalities received a high ranking of preference. While respondents report the greatest capacity for video/audio cassettes, teleconferencing, and Web-based education, many prefer small conferences, on-site or in-state.

**Table 45**  
**% Perceived Preference of Continuing Education Modality**

<b>Preferred Modality</b>	<b>State MCH</b>	<b>State CSHCN</b>	<b>Local</b>	<b>Medicaid</b>	<b>Total</b>
In-state conference	83.0	70.0	50.7	69.6	68.3
On-site at the workplace	71.5	55.0	71.5	68.0	66.5
Small conference (<100)	70.7	66.6	60.3	65.2	65.7
Large conference (>100)	29.3	38.9	17.7	18.1	26.0
Out-of-state conference	26.2	31.6	8.7	22.7	22.3
Distance: internet, Web-based	67.5	50.0	52.3	52.2	55.5
Distance: satellite/interactive TV	61.4	57.9	69.5	30.4	54.8
Video cassettes	16.7	25.0	37.1	34.7	28.4
Audio, teleconferencing	34.9	40.0	24.2	39.1	34.6
Audio cassettes	19.0	15.0	12.2	0.0	15.4
Self-study/Independent study	33.3	25.0	33.6	26.0	29.5
Reading journals/research papers	28.5	20.0	18.5	30.4	24.4
Coursework for credit at college	19.0	15.0	12.2	29.2	15.4

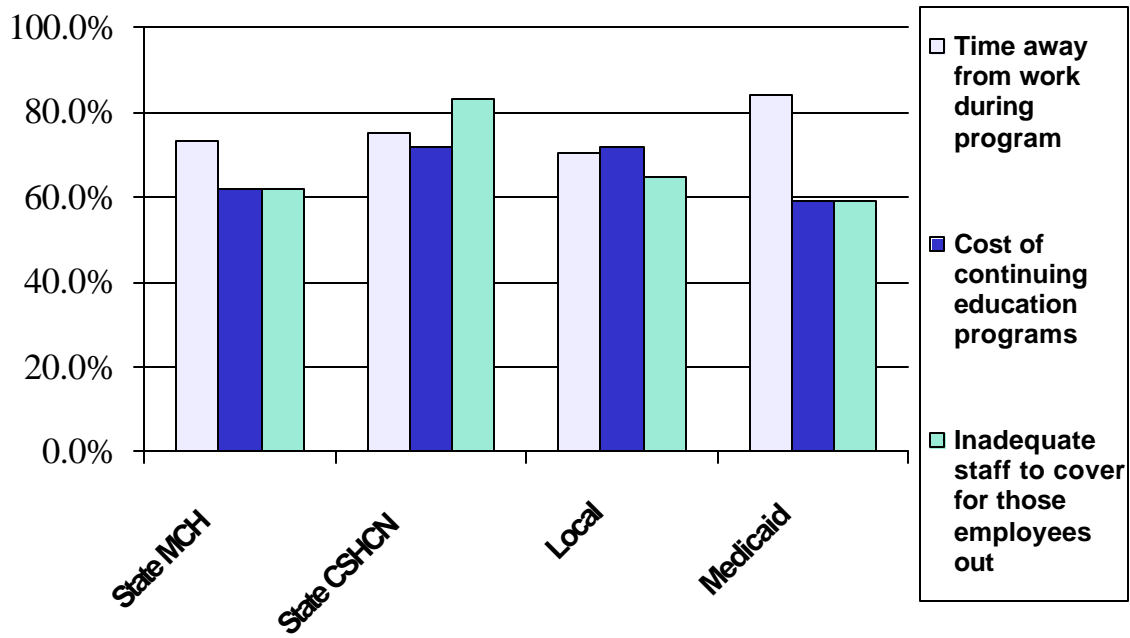
**Note:** Percentages indicate combined ratings of "4" and "5" on a scale of 1 ("least") to 5 ("most preference")

[Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

### **Barriers to and Capacity for Continuing Education**

Table 46 provides a list of various barriers that prevent MCH professionals from seeking and obtaining continuing education. Respondents were asked to rate the factors on a scale of 1 (most important) to 5 (least important) and the table provides the percentage of responses with either a value of 1 or 2 (those indicating the highest two levels of importance). As shown in Table 43 and Figure 3, time away from work, lack of adequate staff to cover when other employees are at training, and the cost of CE are ranked as the top barriers to seeking continuing education.

### Figure 3 Perceived Barriers to Seeking Continuing Education



MCH Leadership Skills Training Institute: Year 2000 Assessment of Training Needs

**Table 46**

#### Barriers for Continuing Education

	State MCH	State CSHCN	Local	Medicaid
Time away from work	73.2%	75.0%	70.7%	84.0%
Lack of adequate staffing	62.1%	83.3%	64.7%	59.1%
Cost of continuing education programs	62.1%	72.2%	72.1%	59.0%
Agency/organization travel restrictions	60.0%	61.1%	39.8%	36.9%
Limited geographic access	48.5%	68.8%	55.7%	56.3%
Insufficient capacity of available training programs	37.5%	38.5%	42.8%	30.8%
Lack of CEU availability	17.9%	16.7%	28.0%	30.8%

**Note:** Percentages indicate combined ratings of "1" and "2" on a scale of 1 (most) to 5 (least important)  
[Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

As some CE is provided by other organizations or agencies, respondents were asked the extent of the agency's capacity to provide training to its own staff and to other constituencies, agencies and organizations with whom the responding agency works. A scale of 1 (little capacity) to 5 (extensive capacity) was used to record responses. In Table 47, responses of 4 and 5 are combined to describe the capacity of agencies to provide training to their own personnel and to others. A third or less of the reporting agencies indicate an appreciable capacity to provide training to either their own staff or others. With the exception of State MCH agencies, most respondents have a greater capacity to train their own staff as opposed to training others. However, the percentage of respondents who have an extensive capacity to train is low across all agencies, the highest being Local agencies.

**Table 47  
Capacity of Training Own Staff**

	<b>State MCH</b>	<b>State CSHCN</b>	<b>Local</b>	<b>Medicaid</b>
Capacity for training own staff	29.5%	28.5%	33.5%	21.6%
Capacity for training others*	45.5%	19.1%	22.4%	10.3%

**Note:** Percentages indicate combined ratings of "4" and "5" on a scale of 1 ("little") to 5 ("extensive capacity")  
[Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

Respondents were asked the extent to which the agencies routinely assessed not only the agency's training needs, but also the needs of other organizations or agencies with which the MCH agency works. A scale of 1 (do not assess) to 5 (routinely assess) was used to record responses. Response of 4 and 5 were used to calculate percentages provided in Table 48, indicating the extent of routine assessment of training needs by agency type. While many of the responding agencies routinely assess the training needs of their own staff, Medicaid more often assesses the needs of other agencies with whom Medicaid works. With the exception of Local agencies, less than one-third of the responding agencies routinely assess the needs of staff within the agency and a smaller percentage assess training needs of other agencies with whom the MCH agencies work.

**Table 48  
Routine Assessment of Training Needs of Staff**

	<b>State MCH</b>	<b>State CSHCN</b>	<b>Local</b>	<b>Medicaid</b>
Assessment of training needs of own staff	31.8%	23.8%	46.1%	25.0%
Assessment of training needs of others*	20.5%	14.3%	11.9%	41.4%

**Note:** Percentages indicate combined ratings of "4" and "5" on a scale of 1 ("do not assess") to 5 ("routinely assess")  
[Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

Along with understanding the degree to which MCH-related agencies assessed training needs, it was deemed important to know how many CE programs were offered by agencies to their own staff and to others. Table 49 provides information on the number of CE programs provided by agency type. Of the respondents, State MCH agencies, on average, provide the most CE programs, roughly 10 each year. Medicaid and State MCH agencies provide slightly more programs to other agencies than State CSHCN and Local agencies. However, Medicaid provides the least number of CE programs.

**Table 49**  
**Number of Continuing Education Programs**  
**Provided by Responding Agency**

		<b>State MCH</b>	<b>State CSHCN</b>	<b>Local</b>	<b>Medicaid</b>
# of CE Programs Provided to Own Staff	Mean	9.05	4.40	4.91	0.70
	Range	0-40	0-24	0-25	0-4
	Q1-Q3	4	4	4	1
# of CE Programs Provided to Others	Mean	11.47	4.00	4.55	1.75
	Range	0-50	0-12	0-50	0-10
	Q1-Q3	13	3	4	2

[Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

Because of limited funding available for CE, respondents were queried about how continuing education dollars should be targeted. When asked which type of staff should receive the first training dollars, respondents across agencies replied fairly consistently (Table 50). Agencies reported that they would give the training dollars to program managers first, followed by program staff or others. “Others” refers largely to clinical staff.

**Table 50**  
**Preference for Level of Staff Receiving First Training Dollars**

	<b>State MCH</b>	<b>State CSHCN</b>	<b>Local</b>	<b>Medicaid</b>
1	Program Manager	Program Manager	Others	Program Managers
2	Program Staff	Others	Program Manager	Program Staff
3	Others	Director	Directors	Others

[Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

While many graduate and continuing education programs are available, the question of how successfully these programs are marketed continues to be an area of concern. The respondents were asked the extent of the agency's awareness of graduate or continuing education opportunities in MCH. Table 51 reveals that most respondents reported being aware of "most" or "some" of the continuing or graduate education opportunities in MCH with somewhat more awareness of CE programs. As all agencies may not have the capacity to inform their employees of available graduate and continuing education opportunities, respondents were asked if having an information clearinghouse on MCHB-funded training programs would be helpful.

**Table 51  
Awareness of Graduate or Continuing Education Programs**

	State MCH	State CSHCN	Local	Medicaid
Percent respondents aware of graduate training programs	77.8	73.7	52.0	40.7
Percent respondents aware of continuing training programs	88.9	80.0	78.1	51.8

[Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

Respondents were asked if they felt there was a potential benefit from establishing a CE clearinghouse. Table 52 presents the responses by agency type and indicates that the majority would find such a service useful.

**Table 52  
Benefits of MCHB-funded Clearinghouse**

	State MCH	State CSHCN	Local	Medicaid
% Respondents Seeing Benefits of Clearinghouse	84.5	60.0	66.9	71.4

[Data Source: MCH Leadership Skills Training Institute Year 2000-1 Assessment of MCH Training Needs]

### **Priorities for Continuing Education**

At the end of the needs assessment form, respondents were further asked to indicate which CE topics should received the first training dollars. The core public health skills of assessment, assurance and policy/advocacy were frequently indicated. Additionally, leadership was among the most often raised items, along with program administration skills, including planning, management, evaluation and performance monitoring. Personnel management and communication skills were among the next frequently mentioned items. Among the future emerging needs for continuing education reported in written, open-ended responses were skills in technical writing skills (including grant writing), systems development, advanced leadership, cost analysis, and organizational change.

# DISCUSSION

## Graduate Education Conclusions

Regardless of agency type, i.e., state MCH, CSHCN, Medicaid or local health department, having employees with graduate education in MCH was perceived to be of value. The percentage of agencies perceiving a benefit from having graduate level trained employees ranged from a low of 73.3% among Medicaid directors to a high of 95.5% of State MCH Directors (Figure 1). For all agencies, more than one-third of current staff members were viewed as being able to use or benefit from graduate education (Table 11). More than one-half of the MCH, CSHCN and Local agencies reported that they either had a hard time or were unable to find qualified applicants who possessed the critical skills they needed (Table 6).

Respondents were asked to rate the importance of graduate-level skills and competencies. Leadership, systems development, management, administration, analytic, policy and advocacy skills were all overwhelmingly perceived to be important. Over 80 percent of respondents in State MCH, State CSHCN, and Local agencies perceived public health leadership and systems development as among the most important graduate education topics and over 75 percent of all agencies perceived graduate education in program management, administration and core public health skills as important (Table 5). Compared to Local health agencies, the three state-level agencies perceived graduate-level clinical skills to be less important (Table 5). Agency respondents indicated MCH epidemiology, health care administration and management as among their top rated critical unmet need areas for MCH professionals with graduate education (Tables 8 and 9). Among the specific core public health skills areas, a MCH professional with graduate education in MCH epidemiology was indicated to be the most critical unmet need area by state MCH (96%), State CSHCN (67%), Local (55%), and Medicaid (57%) agencies (Table 8).

There also remains a large unmet need for professionals with graduate education in clinical skill areas. For MCH agencies, the highest unmet critical need areas for clinical graduate education were genetics (61.4%), dentistry (47.7%), health education (45.4%) nutrition (44.2%) and nursing (42.3%). For CSHCN agencies, the higher unmet clinical need areas were medicine (64.7%), dentistry (57.1%), nursing (55.5%), physical therapy (50%) and early childhood education (50%). Nursing was the highest clinical area of unmet need for Local agencies, followed by nutrition (46.4%) and health education (45.1%). Dentistry (61.9%), health education (50%) and nursing (45%) were the most prominent unmet clinical need areas for Medicaid agencies (Table 7).

Several factors were reported as preventing staff from pursuing graduate education (Table 12). The cost of graduate education programs, the loss of income while in school, and the time required for completion of the program were reported to be the most prohibitive barriers to graduate education by all responding agencies.

## **Continuing Education Conclusions**

The results of this assessment reveal an appreciable unmet need for more continuing education for MCH personnel. In spite of numerous state, federal and professional organization efforts to meet this need, there continues to be a clearly substantial amount of unmet need in MCH-related programs for continuing education and training throughout the U.S., possibly reflecting the ongoing changes, reorganizations and turnover within state and local agencies. Moreover, state and local agencies report limited capacity to meet the training needs of either their staff or the staff of other agencies (Table 47). The number of reported continuing education programs currently being provided is modest (Table 49). Further, the routine assessment of training needs is very limited, which makes it difficult for agencies to accurately document their needs and plan accordingly to meet them (Table 48).

Program managers and program staff were perceived to be in greatest need for continuing education (Tables 13 and 50). Program management and administration skill areas were the most important CE themes for program managers and include program planning, development, implementation, management and evaluation, needs assessment, performance management, data analysis and interpretation, personnel management, team building and policy development (Table 31). For program staff, the most important CE topics tended to be more direct service and program performance oriented and include cultural competency, family centered care, families as partners, clinical skills, and program evaluation, performance and management (Table 32). For agency directors, leadership, systems development and administrative CE themes emerged across all agencies, including health care financing, policy development, interagency and systems-level collaboration, managing change and performance, team building, negotiations, personnel management, and working with families, communities, the public, and legislative bodies (Table 30). The relatively lower perceived need of program directors for CE may reflect the greater availability of or access to CE offerings through AMCHP and other professional groups.

It was clearly viewed as useful for MCH personnel at nearly all staff levels and agency types to learn more about the programs, policies and access and referral procedures of Medicaid and other agencies and for the personnel of those other agencies to learn more about those same items for MCH-related agencies. Co-knowledge of data bases and needs assessments were also viewed as useful. Finally, the future emerging topics for continuing education for all agencies included skills in technical writing (e.g., grant writing), communications, systems development, organization change, cost analysis, and advanced leadership.

Having in-state, on-site and small CE conferences was the first preference of the respondents and is compatible with the reported barriers to seeking CE, i.e., time away from work, lack of staff to cover functions while away, and cost (Tables 43-46). While there is appreciable interest, capacity and preference for other types of CE modalities, including Internet and Web-based training, the reported preference for small conferences might reflect a desire for interaction among colleagues and educators as part of continuing education activities. Taken together, these responses may reflect a desire for local training opportunities that allow participants to get out of the office (thereby eliminating constant interruptions) for short periods of time to learn together.

## RECOMMENDATIONS

The following recommendations are based on the findings of this needs assessment, a review of the previous 1992 AMCHP assessment of MCH graduate and continuing education needs, and the authors' nearly two decades of experience in providing graduate and continuing education in the MCH field. The recommendations are presented in order of priority, although the top five are all seen as critical.

**Recommendation #1: Continue to support MCH graduate education in public health and clinical skill areas, using multiple funding support mechanisms.**

Substantial demand for employees with graduate education was in evidence among all agency types queried. More than 70 percent of all the agencies perceived having employees with graduate education as a benefit with 96 percent of MCH agencies so responding (Figure 1). For all agencies, more than one-third of current staff members were viewed as able to use or benefit from graduate education (Table 11). Over 80 percent of all respondents in State MCH, State CSHCN, and Local agencies perceived public health leadership and systems development as among the most important graduate education topics and over 75 percent of all agencies perceived graduate education in program management, administration and core public health skills as important (Table 5). Among the specific core public health skills areas, a MCH professional with graduate education in MCH epidemiology was indicated to be the most critical unmet need area by state MCH (96%), State CSHCN (67%), Local (55%), and Medicaid (57%) agencies (Table 8).

Given these findings, it is recommended that MCHB continue to support MCH graduate education in public health and might make additional dollars available for tuition remission and stipends in order to allow more students to pursue the MPH degree in MCH without excessive costs burdens and significant loss of income. Further, MCHB might explore partnerships with state MCH/CSHCN programs to offer graduate fellowships to current MCH professionals interested in pursuing the MPH, with the condition that the graduate return to their home state and program. This would provide security to the employee as well as an incentive to the agency to grant the employee educational leave. The MCH Bureau might also offer graduate fellowships to entry-level students. These might also include a required two or more year placement in a MCH/CSHCN-related agency upon graduation.

There also remains a large unmet need for professionals with graduate education in clinical skill areas. For MCH agencies, the highest unmet critical need areas for clinical graduate education were genetics (61.4%), dentistry (47.7%), health education (45.4%) nutrition (44.2%) and nursing (42.3%). For CSHCN agencies, the higher unmet clinical need areas were medicine (64.7%), dentistry (57.1%), nursing (55.5%), physical therapy (50%) and early childhood education (50%). Nursing was the highest clinical area of unmet need for Local agencies, followed by nutrition (46.4%) and health education (45.1%). Dentistry (61.9%), health education (50%) and nursing (45%) were the most prominent unmet clinical need areas for Medicaid agencies (Table 7). Multiple approaches might be considered by MCHB to address these needs, including tuition

and stipend support for graduate education and graduate fellowships tied to conditions of working a specified period in a state or local MCH, CSHCN or related agency. Joint degree programs, e.g., MPH/MD, MPH/MSN and MPH/MSW, represent another viable approach to increase the availability of clinicians cross-trained to address a broad range of needs of the MCH population.

**Recommendation #2: Expand continuing education in the areas of leadership, administration, management, core public health, and clinical skills and support innovative continuing education approaches targeted at program managers and staff using on-site and small conferences.**

A need for continuing education was reported by more than 90 percent of respondents from all agencies (Figure 2). Program managers were identified by over 58 percent of respondents as having the greatest unmet need. More than 67 percent of program staffs were perceived to have a need for continuing education (Table 13). Leadership, management, administration and core public health skills were among the most important CE topics requested and were among the topics suggested to receive CE training dollars. The importance of specific CE topics differed by staff levels. Leadership and system-based skills (i.e., systems development, interagency collaboration, policy issues, advocacy) were deemed as important for directors. More than 80 percent of those responding viewed program management skills and core public health skills (i.e., program development/implementation/evaluation, personnel management, performance measures, data analysis) as important CE topics for managers. For program staff, over 70 percent of all respondents indicated more direct service and program performance topics (i.e., cultural competency and family-centered care) as an important area for continuing education (Tables 14-32). Finally, well more than a majority indicated that CE on other agency's services, programs, policies, and data would be useful (Tables 33-42).

Many of the emphasized CE topic areas are currently addressed by several MCHB-funded CE efforts, e.g., the MCH Leadership Skills Training Institute, although the demand for training continues to exceed the capacity of this program. The ongoing demand for CE in these leadership and management topics suggests that current successful efforts be continued and even expanded to allow more staff to participate and that additional, alternative CE approaches also be explored. As an example of an alternative approach to address current CE needs in the areas of leadership, administration and management, MCHB might support the further development of regional or state leadership academies and identify groups of experts to provide specific skills training in several states (i.e., a traveling leadership academy). Several states (e.g., Illinois, Arkansas) have already organized successful public health leadership academies and more could be designed as certificate programs with MCHB supporting the skeletal structure in an effort to enhance the skills of MCH professionals in a variety of settings within several states.

The major barriers to current employees pursuing continuing education are time away from work, inadequate staffing to cover absence from work, and the cost of CE programs. Over 70 percent of all respondents indicated time away from work as a barrier for continuing education. The cost of continuing education and lack of adequate

staff to cover for employees out were perceived as barriers by more than 59 percent of all respondents (Table 46). At the same time, the preferred modality for CE was “in-state” and “small conference”. More than 70 percent of the State MCH and State CSHCN respondents indicated “in-state conference” as the preferred mode of continuing education compared to more than half of local and Medicaid respondents. Over 60 percent of all respondents prefer a “small conference”. More than 68 percent of State MCH, Local, and Medicaid respondents indicated a preference for on-site workshops, while only 55 percent of State CSHCN respondents preferred this mode of continuing education (Table 45).

Given these identified barriers and preferred modalities for CE training, MCHB might consider funding several entities or individuals to develop itinerant continuing education programs that could be ‘taken on the road’ and offered locally in multiple states throughout a region. These could be supported along with or in favor of the more traditional CE model of funding one entity to provide one CE conference in one state or one region. Current grantees of CE training funds might be provided incentives to work together on a particular topic, optimizing particular talents that exist across universities rather than setting them up as competitors. For example, given the importance of cultural competence training, it is conceivable that faculties at more than one MCH-funded training program that would be interested in jointly developing a traveling continuing education program. Bringing together faculties from different universities and different specialties, e.g., public health and clinical, could further enrich the perspectives brought to training.

**Recommendation #3: Explore the development of a national MCH training policy analysis and development center to serve as a focus for assessing training needs on a regular basis, to serve as a clearinghouse for training activity information, and to foster the development of a national or regional MCH CE brokerage model.**

Less than one-half of the responding agencies routinely assessed the training needs of their own staffs or others (Table 48). A comparison of the results of this needs assessment with the 1992 AMCHP assessment indicate that some training needs may have declined (e.g., the need for graduate degree trained nurses), some may have stayed the same (e.g., the need for program development and management training), and some have emerged (e.g., the need for systems development training). These apparent changes in training needs over time suggest that regular, systematic assessments of training needs and appraisals of the impact of training support efforts are advisable to assure that current training efforts are appropriately targeted and to assess the degree to which trends may partly reflect the effectiveness or insufficiency of past state and national training initiatives. Moreover, the results of these periodic assessments should be routinely analyzed and compiled in such a manner as to facilitate their use in MCHB’s strategic planning and performance measurement activities. Accordingly, MCHB might consider establishing and supporting a national MCH graduate and continuing education training policy analysis and development center to advise MCHB on training-related efforts and serve as a training resource for state Title V and related agencies. Such an entity could provide several important and needed services, including the regular national assessment of training needs and the

provision of guidance to states and localities on the conduct and analysis of ongoing training needs assessments. Moreover, the proposed center could assist in the evaluation of these efforts and in the promotion of federal/state/ training partnerships.

Another specific function of this proposed center might be the development and maintenance of a continuing education clearinghouse. Benefits of a MCHB-funded clearinghouse for CE were perceived by 85% of MCH, 60% of CSHCN, 67% of Local, and 71% of Medicaid agencies (Table 52). These responses indicate strong support for the creation of a national MCH training clearinghouse that in one place would organize information on existing training programs and offerings funded by MCHB. Such information would include details about graduate and CE programs, including contact information, targeted audience, cost, content, objectives, location, dates, and agenda of each training session. The clearinghouse aspect of the proposed center support the efforts of existing funded grantees in marketing their educational programs.

In order to assist MCHB in targeting CE efforts to meet specific state and local needs for desired CE content and preferred CE modalities, while fostering the development of training teams composed of the best trainers from multiple schools and organizations, the proposed center might also be used to explore the development of a national or regional CE brokerage model, whereby a single entity would bear responsibility for identifying experts on selected topics and then deploying them to several states over the course of a year. The broker would handle logistics, including soliciting topic requests from states (beginning with those identified most frequently through this survey); matching experts to topics; and arranging the schedule of CE sessions, topics and sites. For example, once critical CE topics are selected for a region, the CE broker would be charged with identifying one or more persons to develop a CE program on each topic. The persons selected would be asked to offer the CE program on-site or in-state in several states over the course of a year for a negotiated package fee. The broker would also arrange the scheduling and pay the travel and expenses of the speakers.

**Recommendation #4: Require state Title V agencies to conduct assessments of their needs for graduate education, continuing education, and technical assistance, as part of the 5-year and annual update needs assessments.**

In order to assist MCHB in obtaining ongoing and current information to plan for graduate education, continuing education, and technical assistance efforts, State Title V agencies might be encouraged, as part of their comprehensive five-year and annual update needs assessments, to conduct and report on assessments of the graduate and continuing education needs of their state's MCH/CSHCN professionals both within and outside the agency. This would allow for MCHB to better identify unmet needs, as well as determine when needs have been met, so that resources can be directed at the most pressing problems.

The MCH Bureau invests considerable funds in both continuing education and technical assistance for MCH, CSHCN and related programs, though tends to organize them separately. State assessments of continuing education needs, coupled with the self-assessment of technical assistance needs that states conduct each year, would be

expected to reveal substantial overlap between the two. It is not unusual during a continuing education program for participants to ask questions specific to their work to the point that the education program borders on a technical consultation. Similarly, technical assistance visits may evolve into continuing education sessions as trainees ask for more detailed explanations, historical perspectives or guidance in adapting new skill areas. State assessments might reveal needs for more coordinated approaches to technical assistance and continuing education. Such approaches would also be consistent with the results contained in this report (Table 45) that indicate a greater desire for on-site short courses (a step closer to a technical assistance model) versus large national or regional conferences (the typical continuing education approach).

**Recommendation #5: Explore and promote alternative graduate and continuing education models, e.g., distance learning.**

The major barriers to current employees pursuing graduate education are cost of the program, loss of income while completing the program, ability to take time off work, and time to complete the program (Table 12). Over 60 percent of respondents from State MCH, CSHCN, and Local agencies indicated the barriers above to be of the greatest consequence to graduate education. Distance to the program followed the above barriers in terms of importance across agencies. For Medicaid respondents, the percentages were slightly lower, but the trends in perceived barriers mirrored those of other agencies with over 50 percent of the Medicaid respondents indicating cost of program, loss of income while in school, ability to take time off work, and time required to complete program as barriers to graduate education. In order to address these barriers, the MCH Bureau should continue and might further expand its promotion of alternative graduate educational models (e.g., weekend, work/school, and partial distance-based programs), ideally with regional access for professionals in all states. Support of on-site or on-line certificate graduate-level programs may also be considered.

Barriers to continuing education also include time away from work, cost, lack of adequate staff for coverage, and travel restrictions (Table 46). More than 70 percent of all respondents perceived time away from work as a barrier. Over 60 percent of State MCH and CSHCN agency respondents and more than 35 percent of Local and Medicaid perceived travel restrictions as barriers. While preference for on-site continuing education is evident, there are also appreciable interest, capacity and preference for distance learning at both state and local levels (Tables 43-44). This offers an alternative CE training approach that might be further promoted and supported by MCHB.

**Recommendation #6: Sponsor academic/practice partnerships to develop cross training of MCH-related faculty and expand technical assistance and continuing education opportunities.**

Given the existing need for well-trained MCH professionals with diverse skills, states might benefit from longer-term, on-site consultation and involvement of MCH-related faculty. This might be accomplished in a manner similar to that used by CDC to

assign epidemiologists to states. Graduate training programs (both in the clinical and public health areas) would also benefit from having their faculty gain MCH agency practice experience. The MCH Bureau could consider funding sabbaticals for faculty in MCH programs in Schools of Medicine, Public Health, Dentistry, Nursing, Social Work and other MCH-related fields in order that these experts could spend time with one or more states. These sabbatical, possibly ranging from 6 months to more than one year, would allow faculty to provide more intensive continuing education and technical assistance on a set of relevant topics, while at the same time gaining valuable practice-based experience. Finally, interagency personnel actions (IPAs) might also be used to allow faculty to take sabbaticals or work-leave to work with MCHB or its regional offices.