Child Care Health Consultants in Pennsylvania

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ABSTRACT

Background. The Early Childhood Education Linkage System (ECELS) recruits health professionals for a registry and provides training to those who seek such preparation to perform and child care health consultants and trainers. The registry is maintained by the Pennsylvania AAP (PA AAP) to link these professionals with early education and child care programs. ECELS supports registry members with education and materials to for their work as Child Care Health Consultants (CCHCs) so they, in turn can improve health and safety practices in early education and child care programs.

Objectives of the Survey. 1) To describe members of the ECELS CCHC Registry, 2) to assess services and materials used by CCHCs and 3) to evaluate the satisfaction of CCHCs with services provided by ECELS to support their health consultation role.

Methods. Surveys were mailed to the 1200 members of the ECELS Registry in Spring 2001.

Results. The survey response rate was 48%. Respondents were mostly nurses (55%), nurse practitioners (14%) and pediatricians (11%) who provided health consultation in center-based, home-based and Head Start facilities. The resources they report using most commonly were ECELS fact sheets, the AAP Red Book, PA AAP publications and the CDC website. CCHCs were most often asked to provide advice on asthma, allergies, behavior and development. They characterized the most frequently provided tasks as health and safety training for child care providers, and health education for parents and children. The most frequently identified barrier or challenge to their work as CCHCs was that they needed more time to do the work (49%.) Overall satisfaction with ECELS services was high.

Conclusion*.* CCHC in the ECELS registry have diverse health related backgrounds, provide a wide variety of services to small and large facilities, and use many of the available materials with overall high satisfaction. .

INTRODUCTION

In the United States in 1995, 60% of children under 6 years of age were cared for in a non-parental care arrangement.(1) This percentage has been increasing since 1976 and is expected to continue to do so.(2) While non-parental care can have a beneficial effect on child development, education and health, child care attendance can present children with some health and safety risks.(3-11) In 1989, the Pennsylvania Chapter of the American Academy of Pediatrics (PA AAP) established a program, the Early Childhood Education Linkage System (ECELS), to reduce health and safety risks in early education and child care programs in the state. ECELS promotes health and safety by linking health professionals with early education and child care programs and by providing teachers and caregivers in such settings with training, technical assistance and consultation on health and safety issues. In 1995, the Maternal and Child Health Bureau drew on ECELS as a model in creating the national *Healthy Child Care America Campaign*, a federal initiative supporting projects aimed at developing health and safety training and consultation services for child care in every state.(12)

ECELS provides early education and child care providers with print, audiovisual, and electronically accessible material, as well as direct expert consultation on a wide range of health topics. The topics addressed by these materials and consultations include prevention of infectious disease, injury control, and health promotion by ensuring up-to-date preventive health services (immunization and screening), healthful daily routines and environments, nutrition, mental health and oral health. These efforts have been shown to improve health and safety in the child care setting.(13-16) ECELS offers education and consultation services to approximately 12,000 regulated early education and child care facilities throughout Pennsylvania as well as to child care providers in unregulated homes.(17) About 418,000 children throughout the state are enrolled in programs that can directly or indirectly benefit from the education and consultation services provided by ECELS. For many years, ECELS has convened stakeholders representing government, voluntary agencies, health professionals, early educators and parents to inform and engage them in sharing resources as well as to foster progress through strategic planning.

During 1998, the PA AAP conducted a telephone survey of a 10% random sample of licensed child care centers and registered family child care homes to assess perceived needs for health and safety advice and market penetration of ECELS statewide.(18) The survey characterized the demographics of children in child care facilities, their health care needs and child care providers' knowledge, use of and satisfaction with ECELS materials and perceived training needs. ECELS used the knowledge gained from the survey on perceived needs and reported performance, combined with objective findings on performance to organize training and consultation services for the early education and child care providers. Overall the survey of early education and child care providers confirmed a high level of penetration and satisfaction among those who use the services of ECELS, thereby providing evidence for the utility and success of the program.

From its inception, ECELS has recruited health professionals from the public and private sector to serve as local consultants for early education and child care programs. A pool of 1200 health professionals has been sustained of individuals willing to be included in a registry maintained by ECELS. The understanding provided to these individuals is that the staff of ECELS would offer opportunities to build child care health consultation skills, provide materials relevant to health consultation for early education programs, and that ECELS staff might contact them for child care health consultation service in their local communities. This paper describes the second stage of ECELS evaluation, a survey of the members of the ECELS registry of child care health consultants (CCHCs). The aims of this survey were to describe the CCHCs, their level of training and involvement with ECELS, time spent in consultation, compensation and years of experience, materials used in education, satisfaction with the services of ECELS and perceived barriers to consultation. The overall goal of the survey was to inform ECELS about the activities and needs of current and potential CCHC.

METHODS

Survey Development & Distribution

In Spring 2001, the PA AAP mailed a 22 item survey to 1200 members of the ECELS Child Care Health Consultant Registry. The staff of ECELS developed the survey with professional consultation from researchers, pediatricians, pediatric nurses and health educators, and then pilot-tested the survey for answerability six times before it was mailed. To increase the response rate, the staff mailed the survey again about two months after the first mailing.

Topics Addressed in Survey

The survey addressed types of education given, materials used, and facilities worked in, years of participation in child care health consultation, compensation for consultation work, training received in the field, satisfaction with ECELS services and perceived barriers to providing child care health consultation.

Survey Definitions

Child care facilities were defined as home-based and center-based facilities that care for children in lieu of parental care for some part of the day. These included facilities with a variety of names including child day care, child care centers, family child care homes, Head Start and nursery schools. In this case, 'child care facilities' did not include residential care, foster care, group or juvenile justice homes.

Child Care Health Consultants (CCHCs) referred to those who provided professional advice or service to a child care provider either as a clinician, community member or academician; whether formal or informal, and volunteer or paid. *Pre-ECELS CCHCs* began their consulting before or during 1989. *Post-ECELS CCHC* began their work after 1989. *Active* CCHCs were respondents who provided consultation during the 12 months preceding the survey. *Not-active CCHCs* were those who did not provide consultation in the preceding 12-month period.

In defining resources used by survey participants, *national resources* included widely available and known publications of national pediatric and early education professional organizations, while *local resources* consisted of PA AAP publications.

Data Analysis

Those who had provided consultation were compared to those who never did. For those who had ever provided consultation, individual survey item responses were compared for those who were active and not-active using descriptive statistics (chi square for dichotomous, chi square for trend for categorical variables and Student's t-test for continuous variables). Responses to some survey items were compared by those who were trained or not, and those who provided CCHC pre- and post-ECELS. Data were analyzed using SPSS 10.02 (Chicago, IL). Exempt IRB approval was obtained from Children's Hospital of Pittsburgh to analyze the survey data collected by the PA AAP.

RESULTS

Demographics of Survey Respondents

Of the 1200 surveys mailed, 580 (48%) surveys were completed and returned. Of those, 370 (64%) reported that they had served as CCHCs and 269 (73%) of them were active CCHCs, defined as having provided consultation in the last 12 months. Figure 1 summarizes study participation. Of respondents, 82% were female and nearly half reported that they were nurses. In addition to those who said they were RN or LPN-qualified nurses, 13% identified themselves as nurse practitioners and 17% said they were physicians (84 pediatricians and 8 family medicine physicians). Oral and mental health professionals, health educators, nutritionists, environmental health professionals, infection control and EMS personnel made up the remainder. Most respondents worked in medical offices, clinics or health departments. Those who said they were RN or LPN-qualified nurses were more likely to have received formal training in CCHC than physicians and respondents who said they were nurse practitioners ($p<0.001$). Survey respondents were compared by those who ever had (n=370) and those who had never (n=216) served as CCHCs. Those who provided consultation were more likely to be female (87% vs. 72%, $p<0.001$), less likely to have a doctoral degree (20% vs. 41%, $p<0.001$) and less likely to be a physician (12% vs. 31%, $p<0.001$) but were not different in age distribution.

Child Care Health Consultants

The 370 CCHCs worked predominantly in suburban areas, but some worked in rural and urban areas. Most (74%) began their work as CCHCs after the introduction of ECELS. When asked how they became a CCHC (with more than one allowable response) most reported that a child care provider (39%) or ECELS (35%) had contacted them, or that the health department or their employer had asked them to become involved (28%). Others responded that they approached ECELS (13%) or a child care provider (15%) to offer their services. The majority of respondents were paid for their work as CCHC either through their employment or by receiving a consulting fee, while 40% reported providing consultation as volunteers. A higher proportion of males (60% vs.37%, $p=0.003$) reported serving as a CCHC on a volunteer basis.

CCHCs come from diverse backgrounds and perform most of their work in a wide variety of settings. The majority of nurses were health department employees while physicians worked in medical offices, clinics or hospitals. Other places of work included early childhood education facilities, schools (elementary, secondary, college or university), home health agencies and emergency services departments of agencies.

Table 1 describes the demographic characteristics of active and not active CCHCs. Active CCHCs were more likely to have received training as a CCHC, to have provided consultation for any of the types of facilities, to have provided consultation in rural areas, and to have done CCHC work as part of their jobs.

Type of Center and Training

The 370 respondents who provided CCHC were asked to characterize the type(s) of centers where they had worked as a consultant, given choices of Head Start, center-based or home-based, and to identify the ages of children in the centers. Multiple responses were allowed. Children of all ages were well represented, from infants to school age. The majority of CCHC worked at center-based facilities (82%); many (46%) worked at Head Start and home-based programs (31%). There was no association between degrees held by CCHCs and location of consultation work. Of CCHCs, 71% of those working for Head Start had received formal training as a consultant compared to 69% of those working in home-based facilities, and 58% working in center based facilities.

Type of Work Done and Consultation Provided

All respondents, whether or not they provided formal CCHC, were asked if they ever provided health care advice about children with special health care needs who might require special accommodation for participation in an early education and child care program. Multiple answers were permitted. Among the 534 responses, the most frequently reported requests were for advice about asthma (60%), behavior problems (55%), allergies (52%), and developmental delay (48%). There were no differences in types of advice given between those who had and had not provided CCHC.

CCHCs (n=370) were also asked how they spent their consultation time, from a list of provided tasks. They prepared for and taught caregivers about child care issues (51%), provided telephone consultation or referrals (50%), made on site visits to child care facilities (37%), and prepared for and taught parents or children about child care issues (36%). Less commonly reported activities were providing health services requested by the child care provider, administrative tasks related to child care, such as filling out forms, and developing or writing policies and procedures for child care operations.

Resources Used by CCHC

National: Nationally available print resources were widely accessed with 52% of CCHCs reporting that they used the AAP *Red Book,* and 38% using *Healthy Young Children*, a manual of the National Association for the Education of Young Children.

Internet: The Centers for Disease Control and Prevention and the AAP websites were most commonly accessed of the choices offered.

Local: ECELS Fact Sheets were the most commonly used resource distributed by the ECELS program.

Resource preferences were examined for differences based on age, gender, profession, and training of CCHC. Only use of Internet resources was found to approach statistically significant difference by age. Younger CCHCs were more likely to use the Internet. There were no differences in types or number of resources used by gender, profession, age or CCHC training.

Satisfaction with ECELS Services

Survey respondents reported being very or somewhat satisfied with ECELS services. When asked about each ECELS service individually, less than 1% of respondents reported that they were not satisfied with any ECELS service. They reported that the ECELS newsletter, *Health Link,* was the service they were most satisfied with and the one most likely to be used. Other services that were highly ranked as satisfying were ECELSTRAK, the free video lending library, the telephone help line and linkage with other health professionals for specialized expertise. ECELSTRAK is a computerized audit of routine child health data in child care facility records which has since migrated to an Internet Application called WellCareTracker™ found at www.WellCareTracker.org. Overall, there was no difference with reported satisfaction with ECELS services between CCHC who were trained and those not trained or active and not active. However, those who were not trained were less likely to report using ECELS services ($p<0.05$ for all services).

Barriers to CCHC

Survey respondents were asked to choose from a list of barriers or challenges they encountered in working as a CCHC. There was a 19% non-response rate to this item. Nearly half of the responders (49%) reported needing more time to do the work while 21% reported needing more funding to help child care providers make recommended changes. Other responses were: need more training to feel comfortable with the work (19%), need to be paid for doing this (15%), lack of perceived desire for assistance on the part of child care providers (15%), and concern regarding professional liability (14%). Few reported difficulty traveling to child care sites (5%), low priority among the public agencies for this work, lack of awareness of the project on the part of child care providers, lack of supplies, equipment and health professionals, the sporadic nature of the work and language barriers (all <3%).

DISCUSSION

Findings from this survey of the members of the ECELS Health Consultant Registry defines CCHCs by their profession, level of training, location of employment and type of center in which they

work. The survey results characterize the resources that CCHCs use, the type of information and education they provide and how they allocate their time. The findings allow programs like ECELS to focus resource development and training methods appropriately. Also, health professionals who would like to do this work can learn from the experiences of others. Respondents identified ECELS services with which they were most satisfied, providing a framework from which improvements in these services can be made. Barriers to CCHC that were cited by respondents have allowed ECELS to tailor the program to be more supportive of the perceived needs of the CCHC as well as provide an impetus to push for public policy changes in areas of funding and liability.

This survey had some limitations. The written survey offered multiple choice answers with a few options for open-ended responses. Responses to the few open-ended items varied too widely to categorize and interpret without further comment from respondents. The anonymity of a written survey allowed for frank responses that were less likely to be biased by interviewer interaction. However, limited response choices created an inherent bias. The database used to select survey recipients was created by ECELS and therefore does not include Child Care Health Consultants who are not aware of and collaborating with ECELS. There may be a population of Child Care Health Consultants who operate independently and therefore are not recognized or reached by ECELS services. The survey was answered anonymously, but forms were coded to allow identification of the pool of non-responders for the second mailing. Since limited demographic information is kept in the ECELS registry, comparison of responders and non-responders is not possible. Also, survey respondents who were not providing CCHC were directed away from answering the question addressing obstacles to performing CCHC. Data from the question on hours per week spent working as a CCHC were not useable due to wide variation in responses. Despite the instructions, some respondents reported numbers that would be consistent with hours worked per week, while others reported much larger numbers that could be defined as either hours worked per month or year.

Despite the survey limitations, the information gained from this survey identifies characteristics of a population of CCHC. Obstacles to implementing changes deemed necessary by active CCHC suggest targets for action by ECELS and programs like ECELS in the other states. In addition to providing education and consultation to early education and child care facilities, ECELS receives funding from the state agency that regulates child care (PA Department of Public Welfare) and also from the state department of health (PA Department of Health). ECELS augments this sustained funding with federal and private grants to design and implement training, technical assistance and consultation activities to improve health and safety in early education and child care programs. The survey provides information that ECELS can use to identify for policy makers and organizations that might fund CCHC services the desirability of systemic policy change related to involving health professionals as CCHC.

Next steps include identifying and contacting child care providers who are not aware and who are aware but are not current users of the CCHC services. Working to further tailor CCHC services to meet the needs of the population of providers must be ongoing.

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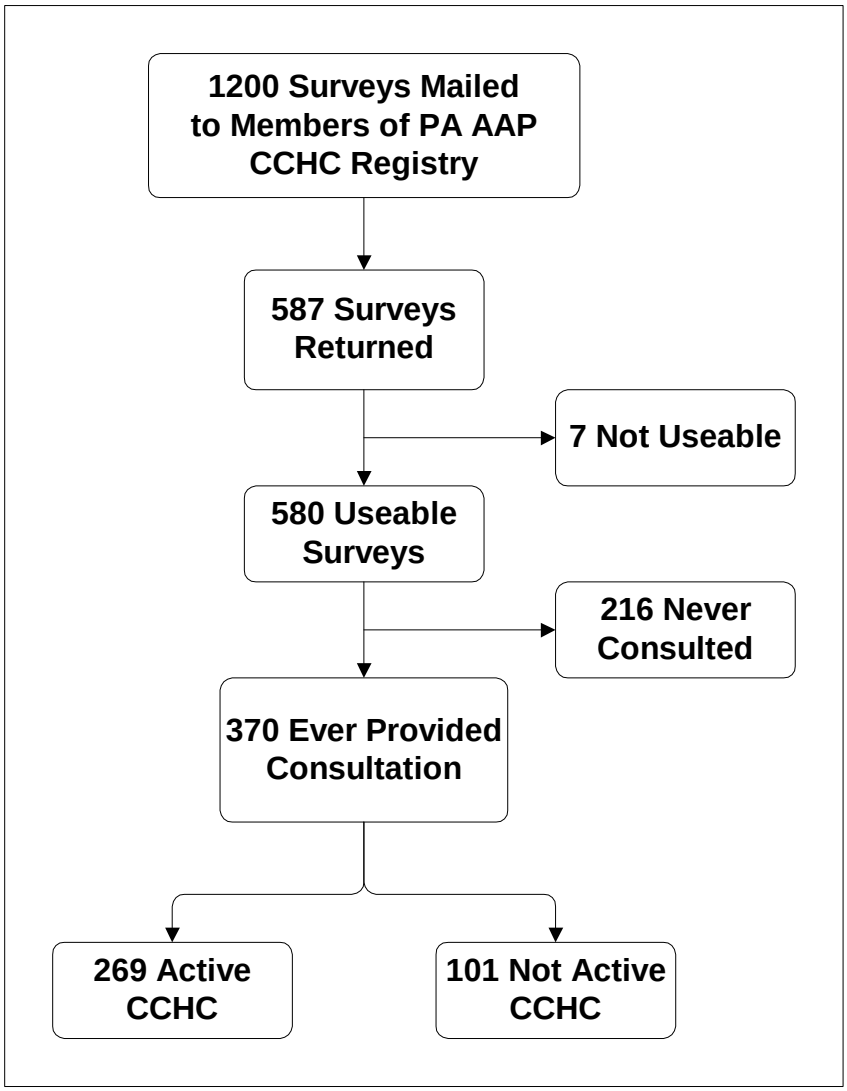
Figure 1: Survey Response Summary



PA AAP Pennsylvania Chapter of the American Academy of Pediatrics

CCHC: Child Care Health Consultant

ECELS: Early Childhood Education Linkage System

Active CCHCs: provided consultation during the 12 months preceding the survey

Not-active CCHCs: did not provide consultation during the 12-month preceding the survey

Table 1: Demographic Characteristics of Active and Not Active CCHC

Variable	% Active CCHC n=269	% Not Active CCHC n=101	p value
Female	88	84	ns
Age groups			ns
<40	15	16	
40-49	39	38	
50-59	36	31	
>=60	10	15	
Highest Degree			<0.001[$]
MD/DO	15	33	
Masters	30	41	
Bachelors	31	20	
< Bachelors	23	7	
Profession			0.007[$]
Physician	9	18	
Nurse Practitioner	11	21	
Nurse (RN or LPN)	61	41	
Other health professional	19	21	
Own children ever in child care (% Yes)	49	43	ns
Ever Trained as CCHC (% Yes)	63	40	<0.001
Consulted before ECELS (% Yes)	25	29	ns
Ever Consulted for			
Center-based	85	75	0.02
Home-based	36	19	0.002
Head Start	52	33	0.001
Other	5	8	ns
Area Where Consulted			
Urban/Inner City	38	31	ns
Urban/Not Inner City	29	25	ns

Suburban	47	44	ns
Rural	50	32	0.004
Compensation*			
Part of job	71	59	0.04
Volunteer	38	46	ns
Paid a fee	16	16	ns

ns: not statistically significant
* some variables had missing data so n<269 (<5% data missing from any variable)
$ chi square for trend