

Community Pediatrics: A Consistent Focus in Residency Training From 2002 to 2005

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Objective.—To assess changes in community pediatrics training from 2002 to 2005.

Methods.—Pediatric residency program directors were surveyed in 2002 and 2005 to assess resident training experiences in community pediatrics. Program directors reported on the following: provision of training in community settings; inclusion of didactic and practical teaching on community health topics; resident involvement in legislative, advocacy, and community-based research activities; and emphasis placed on specific resources and training during resident recruitment. Cross-sectional and matched-pair analyses were conducted.

Results.—A total of 168 program directors participated in 2002 (81% response rate), and 161 participated in 2005 (79% response rate). In both years, more than 50% of programs required resident involvement with schools, child care centers, and child protection teams. Compared with 2002, in 2005, more programs in-

cluded didactic training on legislative advocacy (69% vs 53%, $P < .01$) and offered a practical experience in this area (53% vs 40%, $P < .05$). In 2005, program directors reported greater resident involvement in providing legislative testimony ($P < .05$), and greater emphasis was placed on child advocacy training during resident recruitment ($P < .01$).

Conclusions.—In the last several years, there has been a consistent focus on legislative activities and child advocacy in pediatric residency programs. These findings suggest a strong perceived value of these activities and should inform efforts to rethink the content of general pediatric residency training in the future.

KEY WORDS: child advocacy; community pediatrics; residency training

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Over the past decade, the Ambulatory Pediatric Association,¹ the American Academy of Pediatrics (AAP),² and the Accreditation Council for Graduate Medical Education Residency Review Committee (RRC) for Pediatrics have emphasized the importance of community pediatrics training. Residency programs are required to provide “structured educational experiences with planned didactic and experiential opportunities for learning. . . that prepare residents for the role of advocate for the health of children within the community.”³

Despite affirmation of the importance of community pediatrics training, new regulations challenge program directors with competing priorities. In 1999, the Accreditation Council for Graduate Medical Education (ACGME) began shifting its accreditation process from structure-based requirements to a focus on educational outcomes of trainees related to 6 core competencies. In 2002, programs first became responsible for requirements related to the

core competencies. Since that time, program directors have worked to identify competency-based learning objectives, develop valid and reliable measurement tools, and assess resident attainment of specific objectives. Concurrently, program directors faced an additional challenge of restructuring training curricula to comply with new mandated resident duty hours restrictions. Effective July 1, 2004, the ACGME required work hours to be limited to 80 hours per week, including clinical, administrative, and structured educational activities.⁴

In 2002, we conducted a survey of pediatric residency program directors to describe the national spectrum of community pediatrics training.⁵ The intent of the survey was to understand the broad set of experiential and didactic residency training experiences that support the development of pediatricians oriented to the community pediatrics objectives espoused by the AAP.² The most frequently cited community settings incorporated in resident curricula included schools, child protection teams, community health centers, day care centers, and home visiting. In 2002, more than two-thirds of programs included training on substance abuse treatment, the mental health system, managed care, health care financing, and social services. Amid the many educational changes over the last several years, it is unclear whether pediatric residency programs have maintained the same scope of training in community pediatrics. We conducted the 2005 survey to answer the following research question: “How has community pediatrics training changed from 2002 to 2005?” In light of the changes in resident work hours and

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shift to competency-based curricula, we hypothesized that over the 3-year time period, fewer pediatric residency programs would provide trainees with the same breadth of community experiences.

METHODS

Two surveys were conducted of pediatric residency program directors. From May to September 2002, program directors completed a 10-item written questionnaire, initially fielded at the Association of Pediatric Program Directors meeting.⁵ Between May and July 2005, program directors participated in an 11-item Web-based survey. Program directors were contacted by e-mail and telephone. Participants reported whether they offered a primary care track, the extent of resident involvement in 15 selected community settings (as required, elective, or not available), and whether their programs provided didactic education and/or practical instruction regarding 14 community health topics. Settings included in the 2005 survey included all settings covered in the 2002 questionnaire with one addition (homeless health clinic). The list of health topics in 2005 included all topics covered in the 2002 questionnaire with one addition (children with special health care needs). In both years, program directors reported on the extent to which residents were involved in 4 community activities (communicated with elected officials to advocate on behalf of children's concerns; provided legislative testimony; participated on a longitudinal project providing services in the community; and conducted research in the community). Survey content was based on a literature review, AAP periodic surveys, instruments developed for the cross-site evaluation of the Dyson Community Pediatrics Training Initiative, and input from the Dyson Initiative National Evaluation Advisory Committee. The study was approved by the Committee on Human Research at Johns Hopkins University.

Cross-sectional analyses were conducted to assess differences in responses between 2002 and 2005. The χ^2 statistic was used to assess differences between the 2 years; all data were used from all respondents. SPSS 11.0 software was used for statistical analysis (SPSS, Chicago, Ill). Inclusion of community pediatrics settings as required or elective rotations, and inclusion of community health topics as didactic or practical instruction were analyzed as dichotomous variables (yes/no). Response categories for the extent of resident involvement in the 4 selected community activities comprised a Likert scale from 1 to 4 (not at all, somewhat, moderately, and heavily). For our analyses, we collapsed this scale into a dichotomous variable (not at all—somewhat vs moderately—heavily). The same Likert scale was used for the degree to which programs emphasize specific training and resources during resident recruitment, and we again collapsed the scale into the same dichotomous variable. In addition to the cross-sectional comparisons, we conducted a sensitivity analysis by the McNemar χ^2 statistic for paired comparisons for respondents who participated in both surveys.

Table 1. Training in Community-Based Settings in 2005 (N = 161)

Settings	Required, n (%)	Elective, n (%)
School	115 (71)	34 (21)
Child protection teams	95 (60)	55 (35)
Day care/child care center	88 (55)	30 (19)
Community health center	87 (54)	54 (34)
Juvenile justice detention program	80 (51)	31 (20)
Head Start program	65 (41)	42 (26)
Local or state health department	64 (40)	60 (38)
Home visiting	54 (35)	23 (15)
Shelter	49 (31)	48 (30)
Homeless health clinic	24 (18)	48 (35)
Mobile health van	26 (17)	34 (22)
Migrant health clinic	11 (7)	35 (22)
Camp for children with special needs	9 (6)	129 (81)
International health experience	4 (3)	126 (79)
Indian health service	3 (2)	46 (29)

RESULTS

In 2005, of the 203 accredited programs, 161 participated (79% response rate), which was comparable to the response rate for the 2002 survey (n = 168, 81%). One hundred thirty-seven program directors participated in both surveys. When we used data from all respondents, no statistically significant differences were found between the 2 years with respect to program size. In 2005, 37% were small (≤ 30 residents), 37% medium (31–50 residents), and 26% were large (≥ 51 residents). In both years, 15% of programs reported they had a primary-care track.

As shown in Table 1, in 2005, the majority of programs required resident involvement with schools (71%), child protection teams (60%), and child care centers (55%). Although few programs required resident involvement with camps for children with special needs and international health experiences, a large percentage offered electives in these settings (81% and 79%, respectively). Comparing resident involvement in 2002 and 2005, we found only one community setting with a significant difference. In 2005 a smaller proportion of programs involved residents with home visiting experiences (50% vs 35% as a required setting and 26% vs 15% offering an elective; $P < .05$).

Few differences were found in community health topics taught between 2002 and 2005. As shown in Table 2, in 2005, more than 80% of programs provided didactic training and a practical experience regarding children with special health needs, the mental health system, and cultural competency. Compared with 2002, in 2005, a greater percentage of programs included didactic training in legislative advocacy (53% in 2002 vs 69% in 2005, $P < .01$) and offered a practical experience in this area (40% vs 53%, $P < .01$).

As shown in the Figure, compared with 2002, in 2005, program directors reported a greater degree of resident involvement in all 4 community-based activities. This change was significant only for the percentage of programs reporting residents having moderate to heavy involvement in providing legislative testimony (2% in 2002

Table 2. Community Health System Topics Taught in 2005 (N = 161)

Community Health System Topics	Didactic Training, n (%)	Practical Experience, n (%)
Children with special health needs	148 (93)	145 (91)
Mental health system	140 (88)	131 (82)
Cultural competency	137 (86)	131 (82)
Substance abuse treatment	133 (83)	94 (59)
Health care financing	127 (80)	86 (54)
Managed care	126 (79)	103 (65)
Social service system	122 (77)	125 (78)
Legislative advocacy	109 (69)	84 (53)
Foster care system	87 (55)	91 (57)
Welfare system	82 (52)	90 (57)
Public education system	80 (50)	106 (67)
Juvenile justice system	69 (43)	84 (53)
Migrant health care	20 (13)	18 (11)
Indian health service	14 (9)	9 (6)

vs 7% in 2005, $P < .05$). In both years, a high percentage of program directors reported moderate to heavy emphasis on community pediatrics training during resident recruitment (85% in 2002 and 82% in 2005). However, compared with 2002, in 2005, more programs reported moderate to heavy emphasis on the following resources: deliveries and newborn care (66% vs 78%, $P < .05$), international electives (34% vs 48%, $P < .05$), intensive care (67% vs 81%, $P < .01$), and child advocacy training (58% vs 73%, $P < .01$).

In both years, programs with moderate to heavy emphasis on community pediatrics and child advocacy training reported greater resident involvement in community activities. In 2005, compared with those with lower emphasis on community pediatrics training, programs with heavier emphasis reported greater resident involvement with advocating to elected officials (4% vs 23%, $P < .05$), participating in community-based longitudinal projects (22% vs 47%, $P < .05$), and participating in research projects in the community (4% vs 33%, $P < .01$). Comparable results for analyses were found when we performed cross-sectional and matched-pair analyses for respondents who participated in both surveys.

DISCUSSION

Our survey findings demonstrate a consistent focus on community pediatrics and child advocacy training during pediatric residency between 2002 and 2005. This consistency is particularly impressive given that modifying the structure and content of residency training is a tremendously time-intensive effort. The framework of Shipley et al⁶ of successful community pediatrics training experiences include 2 key strategies: engaging residents and building strong community partnerships. Program directors similarly report that having a strong community orientation in residency training is associated with factors that require sustained commitment and nurturance: faculty expertise and interest, departmental priorities, resident interest, institutional initiatives, and resources and money.⁷

In recent years, there have been several published mod-

els of community pediatrics training experiences. In 2005, Wright et al⁸ conducted a qualitative study of leaders and educators in the field of child advocacy to reach consensus on an operational definition and develop core objectives for advocacy curricula. Some qualitative studies⁹⁻¹¹ have demonstrated positive changes in resident knowledge and attitudes related to specific community block rotations, and one study demonstrated improvement in child advocacy knowledge, skills, and self-efficacy after participating in a longitudinal child advocacy curriculum.¹² Because programs vary considerably with respect to faculty and institutional resources, implementation of community experiences should be based on individual program's and community's strengths and shared interests.

In a 2004 policy statement, the AAP emphasized the value of using experiential approaches to educate pediatricians about culturally effective health care.¹³ In 2005, Sidelinger et al¹⁴ described the positive impact of a cultural training program where pediatric residents join paraprofessionals on home visits. Unfortunately, between 2002 and 2005, we found a marked decrease in the percentage of programs requiring, or offering an elective, in home visitation. This change may be due to the implementation of work-hour restrictions with greater accountability of resident time.⁴ Many educators place great value on home visitation as an experiential learning strategy. Although research in this area is lacking, these experiences may be extremely powerful in helping residents to understand the social and cultural context of their patients' lives.

Several limitations to our study should be considered. Although social desirability bias may have occurred, we would not expect a differential impact in survey responses between 2002 and 2005. Similarly, with increased attention to a greater level of detail required by the RRC, educator compliance bias may have influenced respondents to report more positive training experiences. Again, however, we would not have expected a differential impact in the 2 years. Our survey assessed the spectrum of experiences, but we did not obtain information related to specific curricula. As such, we do not know whether the

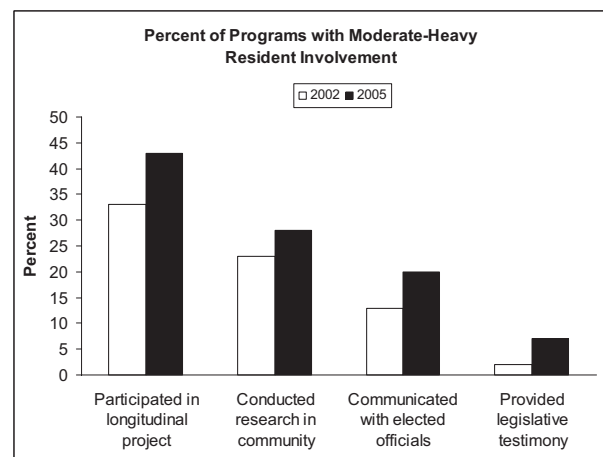


Figure. Percentage of programs with moderate to heavy resident involvement.

observed changes represent an increase in a 1- or 2-day advocacy exposure, additional structured block rotations, or longitudinal experiences. Although program requirements include community pediatrics training, these requirements are not specific to the 4 activities we assessed in the survey. As such, programs may involve residents in other beneficial community learning experiences not assessed in this study. Finally, these data do not identify changes in resident knowledge, attitudes or skills. Further research is currently underway to assess the impact of the scope and intensity of community pediatrics training on future career activities of pediatricians beyond training.

Given the many competing demands on pediatric residency programs and medical educators, it remains critically important to evaluate the effectiveness of community pediatrics initiatives. Such evaluations should inform residency training requirements as well as the Residency Review and Redesign Project (R3P), an initiative of the American Board of Pediatrics (ABP) to assess and reform general pediatric residency training.¹⁵ Through this project, over the next several years, the ABP hopes to develop consensus regarding the competencies needed to practice pediatrics and to identify needed changes within residency training. What will drive this complex educational reform is consideration of the future role of pediatricians in providing health care services for children in the context of their families and communities.

Pediatric residency programs and the RRC have remained steadfast in requiring structured didactic and experiential learning that addresses the role of pediatricians as advocates for children within their communities. Despite competing priorities of implementing duty hours and the 6 ACGME competencies, community experiences have not been diluted, and in fact, exposure to legislative advocacy has been enhanced. This sends a strong message about the perceived value of these experiences in training the pediatricians of the 21st century.

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