

Pediatricians' Involvement in Community Child Health From 1989 to 2004

Cynthia S. Minkovitz, MD, MPP; Karen G. O'Connor, BS; Holly Grason, MA; Anita Chandra, DrPH; C. Andrew Aligne, MD, MPH; Michael D. Kogan, PhD; David Tayloe, MD

Objectives: To explore pediatricians' current involvement in community child health activities, to examine trends in community involvement from 1989 to 2004, and to compare perspectives and skills related to community involvement among those participating and not participating in community activities.

Design: Cross-sectional analysis of 3 American Academy of Pediatrics Periodic Surveys of Fellows.

Participants: In the 1989, 1993, and 2004 surveys, 1024, 1627, and 1829 pediatricians participated, respectively (response rates: 70.3%, 65.2%, and 57.6%).

Main Outcome Measures: Involvement, skills, and perspectives related to community child health activities.

Results: The percentage of pediatricians involved in community child health activities in the preceding year rose from 56.6% in 1989 to 59.4% in 1993 but declined to 45.1% in

2004. Pediatricians increasingly reported that these activities were volunteer rather than paid (48.6% in 1989, 57.8% in 1993, and 79.6% in 2004). More participants in community child health activities vs nonparticipants viewed their current level of involvement as "just right" (52.5% vs 24.9%), reported themselves to be very responsible for children's health (42.2% vs 24.9%), expected their community work to increase during the next 5 years (63.5% vs 54.1%), and reported higher skills in 6 areas (all $P < .001$).

Conclusions: Although there has been decreased participation in community child health, most pediatricians expect their community efforts to increase. Because most community activities are volunteer, challenges to address include incorporating community involvement into employment and identifying strategies to facilitate voluntary civic engagement.

Arch Pediatr Adolesc Med. 2008;162(7):658-664

IN THE PAST DECADE, THERE HAVE been frequent calls for civic engagement and professionalism among physicians generally¹⁻³ and pediatricians in particular.⁴⁻⁷ According to the American Academy of Pediatrics (AAP), community pediatrics incorporates clinical practice and public health principles for "promoting the health of all children within the context of the

*For editorial comment
see page 695*

family, school, and community."^{4(p1092)} To promote children's well-being, pediatricians increasingly are encouraged to engage in community partnerships to address social and environmental factors that contribute to children's health.^{6,8} As such, residency training places a growing emphasis on acquiring necessary skills in community pediatrics, regardless of specialization.^{9,10} Despite this emphasis, little is known about the ongoing involvement of pediatricians in community activities.

Multiple factors influence pediatricians' involvement in community activities. Prior community experiences, education and training, and sociodemographic characteristics have been associated with community involvement.¹¹⁻¹⁵ However, among practicing pediatricians, community activities may conflict with demands for generating revenue. Moreover, it is unclear how involvement is influenced by the changing demographic characteristics of the pediatric workforce, with more female trainees, more part-time employment, and greater debt among recent graduates.¹⁶ Involvement also may be influenced through postgraduate opportunities. For example, the AAP's Community Access to Child Health Program^{12,17} and the Healthy Tomorrows Partnership for Children Program, a collaboration between the Federal Maternal and Child Health Bureau and the AAP, are among the initiatives that encourage acquisition and application of new skills among practicing pediatricians.

The objectives of this study are to describe pediatricians' current involvement in community child health activities, to ex-

Author Affiliations are listed at the end of this article.

amine trends in community involvement from 1989 to 2004, and to compare perspectives and skills related to community involvement among those who currently do and do not participate in community activities.

METHODS

PERIODIC SURVEYS

The AAP conducts Periodic Surveys of Fellows on topics of importance to pediatricians 3 or 4 times per year. Each survey uses a unique random sample of members of the AAP. Periodic Surveys in 1989 (number 9), 1993 (number 23), and 2004 (number 60) included questions on involvement with community child health. The 1989 survey asked respondents to indicate current participation "in a professional capacity in any community-based settings or activities" and included a follow-up question to identify involvement during the past 12 months from a list of individual activities. The 1993 and 2004 surveys included a global question asking participants to indicate whether they participated in a professional capacity in any community-based activities in the past 12 months. These surveys also included a separate question about involvement in listed individual activities. All surveys asked whether participation was voluntary or paid and about personal and practice characteristics.

The 2004 survey additionally asked respondents about their perspectives regarding their current level of involvement in community child health activities, their view of their own responsibility for child health, their willingness to spend time in child health activities, and their expectations about whether their community work in the next 5 years would increase, decrease, or stay the same. The 2004 respondents described their involvement during the past 12 months and skill level in 6 additional strategies to influence children's health. Involvement responses were dichotomous (yes or no) and skills were self-rated as "not at all skilled," "minimally skilled," "moderately skilled," or "very skilled."

The 1989 Periodic Survey was a 6-page self-administered questionnaire sent to 1024 active (nonretired) AAP members from August 23 through November 16, 1989. After 5 contacts, 720 questionnaires were received (response rate, 70.3%). In addition to questions on participation in community health services, the survey included questions on participation in international health and practice of or training in sports medicine.

The 1993 Periodic Survey was an 8-page self-administered questionnaire sent to 1627 active members from September 15 through December 30, 1993. After 5 contacts, 1060 questionnaires were received (response rate, 65.2%). In addition to questions on participation in community health services, the survey included questions on involvement in the Healthy Tomorrows Partnership for Children Program, as well as questions about various public education topics.

The 2004 Periodic Survey was an 8-page self-administered questionnaire sent to 1829 active members. The original mailing and 5 follow-up mailings to nonrespondents were conducted from April 19 through September 14, 2004. After the first and fifth mailings, an e-mail reminder was sent to nonrespondents with e-mail addresses, and a postcard reminder was sent to those without (67.9% and 32.1% of nonrespondents, respectively). A total of 1053 completed questionnaires were received (response rate, 57.6%). Involvement in community child health was the only topic of this survey. Survey content was informed by a national advisory group with expertise in community pediatrics and was reviewed by the AAP Community Pediatrics Action Group and members of the Council on Community Pediatrics.

DATA ANALYSIS

Data analysis was conducted for questions pertaining to involvement in community child health activities. Analysis on all 3 surveys included postresidency pediatricians, excluding residents and pediatricians with a Specialty Fellow designation in the AAP membership database. The final sample included 637 pediatricians in 1989 (88.5% of respondents), 865 pediatricians in 1993 (81.6% of respondents), and 881 pediatricians in 2004 (83.7% of respondents).

We used χ^2 analysis and *t* tests to assess differences in responses between survey years. Additional χ^2 and median test analyses of the 2004 respondents included a comparison of demographic and practice characteristics, community child health perspectives, and skill level by participation in community child health activities in the past year.

Analyses were conducted using SPSS statistical software, version 11.5 (SPSS Inc, Chicago, Illinois). Human subjects approval was obtained from the AAP Institutional Review Board and the Committee on Human Research at Johns Hopkins Bloomberg School of Public Health.

RESULTS

RESPONDENT CHARACTERISTICS

Demographic and practice characteristics of respondents were compared during the 15-year study period. The percentage of female pediatricians increased from 29.6% in 1989 to 52.5% in 2004 ($P < .001$), but mean age did not vary (45.8 vs 45.3 years; $P = .33$). From 1993 to 2004, there was no difference in practice location (urban vs suburban vs rural), although over time fewer pediatricians were in solo or 2-physician practices and more worked in group practices. From 1993 to 2004, a growing percentage of respondents reported spending more than 50% of their time in general pediatrics (64.8% vs 71.6%; $P = .003$), and there was an increase in the mean percentage of time spent in direct patient care (71.9% to 76.9%; $P = .005$).

In addition, in 2004, 6.7% of respondents identified themselves as Hispanic, 74.2% as white, 17.9% as Asian, and 3.4% as African American (respondents were asked to "circle all that apply"). Among the 771 respondents who provided information regarding race and ethnicity, 85 (11.0%) were underrepresented minorities (ie, African American, Native American, or Hispanic). Respondents had greater representation from suburban (36.4%) and non-inner city urban (29.3%) practices compared with inner city urban (21.8%) or rural (12.5%) areas. Most respondents (78.3%) reported full-time employment.

For assessing potential response bias in 2004, comparisons between respondents and nonrespondents were conducted for several demographic variables. No significant differences were found between respondents and nonrespondents for mean age (43.7 years) and region of the country (Northeast, 24.5%; Midwest, 21.5%; South, 33.4%; and West, 20.7%). More respondents were women (53.9% vs 46.6%; $P < .05$). We similarly assessed potential response bias in 1993; no significant differences were found between respondents and nonrespondents for region of country or sex. Demographic data were no longer available for 1989 or for age in 1993.

Table 1. Pediatrician Participation in Community Child Health Activities

Participation	1989 (n=637)	1993 (n=865)	2004 (n=881)	P Value, 1989/1993 ^a
Any community activity, No. (%) ^b	353 (56.6)	498 (59.4)	387 (45.1)	<.001/<.001
Volunteer only, No. (%) ^c	171 (48.6)	284 (57.8)	297 (79.6)	<.001/<.001
Paid only, No. (%) ^c	58 (16.5)	79 (16.1)	31 (8.3)	.001/.001
Volunteer and paid, No. (%) ^c	123 (34.9)	128 (26.1)	45 (12.1)	<.001/<.001
Volunteer community activities, mean (SD) ^c	2.3 (2.0)	2.0 (1.7)	1.9 (1.3)	.005/.27
Paid community activities, mean (SD) ^c	1.2 (2.0)	0.8 (1.3)	0.3 (1.1)	<.001/<.001
Volunteer and paid community activities, mean (SD) ^c	3.4 (2.7)	2.8 (2.0)	2.2 (1.6)	<.001/<.001

^aP values are calculated for 1989 or 1993 survey results vs 2004 survey results.

^bIn 2004 and 1993, pediatricians were asked about their participation in community activities during the past 12 months; in 1989, they were asked about current participation.

^cBased on actual number of respondents who indicated participation in specific activities.

Table 2. Pediatrician Participation by Community Child Health Activity

Activity	No. (%) of Respondents			P Value, 1989/1993 ^a
	1989 (n=353)	1993 (n=498)	2004 (n=387)	
Health and fitness				
Health fairs	80 (22.7)	149 (29.9)	108 (27.9)	.10/.51
Camps	71 (20.1)	101 (20.3)	54 (14.0)	.03/.01
Neighborhood health centers/public health clinics ^b	64 (18.1)	122 (24.5)	54 (14.0)	.12/<.001
Sports team physician ^c	47 (13.3)	52 (10.4)	31 (8.0)	.02/<.001
School/education				
School consultant ^d	74 (21.0)	161 (32.3)	60 (15.5)	.054/<.001
Special education program consultant	32 (9.1)	NA	30 (7.8)	.52/...
Child care center	50 (14.2)	76 (15.3)	29 (7.5)	.003/<.001
School health clinic provider	15 (4.2)	41 (8.2)	28 (7.2)	.08/.58
School board member	NA	NA	17 (4.4)	.../...
Other government/public health programs				
Child protection services/agencies	77 (21.8)	117 (23.5)	32 (8.3)	<.001/<.001
Child with special health care needs/Title V	96 (27.2)	99 (19.9)	28 (7.2)	<.001/<.001
Courts	64 (18.1)	88 (17.7)	23 (5.9)	<.001/<.001
Child-specific advisory committee (eg, IDEA, newborn screening, Head Start, MCH, immunization)	68 (19.3)	82 (16.5)	56 (14.7)	<.001/.46
Board of health	NA	NA	13 (3.4)	.../...
Nonprofit organization				
Volunteer organizations (eg, AAP chapter or national activities, March of Dimes, Rotary, Kiwanis) ^e	100 (28.4)	NA	89 (23.0)	.10/...
Child advocacy (eg, Voices for Children, Children's Defense Fund) ^f	71 (20.1)	117 (23.5)	38 (9.8)	<.001/<.001
Homeless shelters	13 (3.7)	30 (6.0)	14 (3.6)	.96/.10
Mobile health services	3 (0.8)	9 (1.8)	5 (1.3)	.56/.54
Other	78 (22.1)	93 (18.7)	82 (21.2)	.77/.36

Abbreviations: AAP, American Academy of Pediatrics; ellipses, not applicable; IDEA, Individuals with Disabilities Education Act; MCH, Maternal and Child Health; NA, not asked.

^aP values are calculated for 1989 or 1993 survey results vs 2004 survey results.

^b2004 wording; in 1989 and 1993 the categories were "neighborhood health center" and "indigent care/public health clinic."

^c1989 and 1993 wording; in 2004 the categories were "school sports team physician" and "recreational sports team physician (other than school)."

^d1993 and 2004 wording; in 1989 the categories were "public school consultant" and "private school consultant."

^e2004 wording; in 1989 the question was asked as "volunteer organizations (eg, local chapter/national AAP activities)."

^f2004 wording; in 1989 the category was "child advocacy setting, non-AAP (eg, Healthy Mothers/Healthy Babies)" and in 1993 it was "child advocacy settings, non-AAP."

PARTICIPATION IN COMMUNITY CHILD HEALTH OVER TIME

During the past 15 years, the percentage of pediatricians involved in community child health activities in the preceding year rose from 56.6% in 1989 to 59.4% in 1993 but declined to 45.1% in 2004 (**Table 1**). There

also has been a decrease in the average number of activities in which pediatricians are involved, either on a volunteer or paid basis. Among those who participate in community activities, more pediatricians in 2004 compared with preceding years reported that their community participation was voluntary (79.6% in 2004 vs 57.8% in 1993 vs 48.6% in 1989); however, the per-

centage of all pediatricians engaged in volunteer activities from 1993 to 2004 was consistent (34.3% in 1993 vs 35.9% in 2004).

Although participation in many activities was stable from 1989 to 1993, there was a decline in multiple settings in 2004 across the 4 categories related to health and fitness, school/education, other government and public health programs, and nonprofit organizations (**Table 2**). Specifically, declines in participation were noted for camps, neighborhood health centers, school consultancy, child care centers, child protection agencies, courts, and child advocacy organizations. Participation in health fairs continues to be a frequently cited activity. There were no significant changes in participation in health fairs, volunteer organizations, and child-specific advisory committees (Table 2).

PARTICIPANTS AND NONPARTICIPANTS IN 2004

Sex, marital status, having a child aged 5 years or younger, spending half-time or more in general pediatrics, practice type, and full-time employment were not associated with involvement in community child health activities in the preceding year (**Table 3**). The mean age of participants was slightly higher. A greater percentage of rural physicians reported participation in community child health activities than pediatricians located in suburban or urban areas (61.0% vs 38.0% vs 48.0%; $P < .001$). Finally, pediatricians who participated reported a higher mean percentage of patients with public health insurance than did nonparticipants (42.6% vs 38.1%; $P = .003$).

Perspectives on involvement varied with participation. More participants than nonparticipants reported that their level of involvement was "just right" (52.5% vs 24.9%; $P < .001$) (**Table 4**). Relative to results of the 1993 survey, a greater percentage of pediatricians in 2004 believed that their current level of activity was inadequate (62.1% vs 35.5%; $P < .001$).¹⁸ More participants than nonparticipants in 2004 anticipated an increase in their involvement during the next 5 years (63.5% vs 54.1%; $P < .001$) and were willing to spend 4 or more hours monthly on child health activities (33.6% vs 10.0%; $P < .001$), whereas more nonparticipants than participants reported no willingness to spend time (17.1% vs 2.9%; $P < .001$). More pediatricians who were currently involved in community child health compared with those who were not felt moderately or very responsible for improving child health in their community at a population level (84.2% vs 69.4%; $P < .001$).

Among participants, receipt of payment for community activities was not associated with perceived child health responsibility. However, more who received pay vs no pay thought their activity level was "just right" (67.9% vs 48.6%; $P = .008$). In addition, those who received pay were less likely to believe their level of activity would increase during the next 5 years (51.3% vs 66.1%; $P = .002$). Yet, those who were paid were more willing to spend 4 or more hours per month (54.6% vs 27.7%; $P < .001$).

Table 3. Demographic and Practice Characteristics for Community Child Health Activity Participants and Nonparticipants in 2004

Characteristic	Participation in Community Child Health Activity in Past Year ^a		P Value
	Yes (n=387)	No (n=481)	
Demographic			
Age, mean (SD), y	46.0 (10.2)	44.6 (10.0)	.04
Sex			.06
Male	200 (48.4)	213 (51.6)	
Female	187 (42.1)	257 (57.9)	
Marital status			.22
Married	344 (46.3)	399 (53.7)	
Single	25 (36.6)	45 (63.4)	
Widowed/separated/divorced	14 (38.9)	22 (61.1)	
Youngest child ≤ 5 y	112 (45.7)	133 (54.3)	.50
Underrepresented minority ^b	35 (43.8)	45 (56.3)	.93
Practice			
Community setting			<.001
Urban, inner city	79 (43.4)	103 (56.6)	
Urban, non-urban city	124 (51.5)	117 (48.5)	
Suburban	115 (38.0)	188 (62.0)	
Rural	61 (61.0)	39 (39.0)	
Percentage of time spent in general pediatrics			.93
< 50%	107 (45.3)	129 (54.7)	
≥ 50%	280 (45.0)	342 (55.0)	
Type of practice			.71
Solo or 2-physician	60 (50.0)	60 (50.0)	
Pediatric group/multispecialty/HMO staff	177 (43.3)	232 (56.7)	
Medical school	43 (43.9)	55 (56.1)	
Nongovernment/government hospital or clinic	61 (47.3)	68 (52.7)	
Other ^c	39 (47.0)	44 (53.0)	
Employment status			.48
Full-time	304 (45.8)	360 (54.2)	
Part-time	71 (44.4)	89 (55.6)	
Other ^d	12 (35.3)	22 (64.7)	

Abbreviation: HMO, health maintenance organization.

^aData are given as number (percentage) of respondents.

^bIncludes African American, Native American, and Hispanic ethnicities.

^cIncludes nonprofit community health center and other.

^dIncludes retired, semiretired, not in practice, and not active.

SELECTED SKILLS IN COMMUNITY CHILD HEALTH IN 2004

More pediatricians reported a moderate or high skill level in using computers and the Internet to find information about child health policy (60.8%) and locating community resources for individual children (56.8%) than in other areas, such as identifying community needs (30.0%) or using population-level data to understand the determinants of child health (28.1%) (**Table 5**). More respondents who participated in each activity compared with individuals who did not reported moderate or high skills. For example, a greater percentage of pediatricians who spoke publicly on behalf of children's health, compared with pediatricians who did not, reported feeling moderately or highly skilled in this area (83.2% vs 31.3%; $P < .001$).

Table 4. Perspectives on Involvement and Responsibility for Child Health in 2004

Characteristic	Community Child Health Activities During the Past Year ^a			P Value
	Total (n=881)	Participants (n=387)	Nonparticipants (n=471)	
Current level of involvement				
Too little	527 (62.1)	181 (46.8)	346 (75.1)	< .001
Just right	318 (37.5)	203 (52.5)	115 (24.9)	
Too much	3 (0.4)	3 (0.8)	0	
Responsibility for child health				
Very responsible	278 (32.8)	163 (42.2)	115 (24.9)	< .001
Moderately	367 (43.3)	162 (42.0)	205 (44.5)	
A little	189 (22.3)	59 (15.3)	130 (28.2)	
Not at all	13 (1.5)	2 (0.5)	11 (2.4)	
Time willing to spend in child health activities, h/mo				
>5	92 (10.9)	75 (19.5)	17 (3.7)	< .001
4-5	83 (9.8)	54 (14.1)	29 (6.3)	
1-3	427 (50.5)	193 (50.3)	234 (50.6)	
<1	154 (18.2)	51 (13.3)	103 (22.3)	
None	90 (10.6)	11 (2.9)	79 (17.1)	
Expectation of community work in next 5 y				
Increase	493 (58.3)	242 (63.5)	251 (54.1)	< .001
Stay the same	330 (39.1)	124 (32.5)	206 (44.4)	
Decrease	22 (2.6)	15 (3.9)	7 (1.5)	

^aData are given as number (percentage) of respondents.

Table 5. Participation in Activity in the Past Year by Moderate or High Skill in Activity in 2004

Activity	Any Participation ^a	Moderate or High Skill			P Value
		All Respondents ^b	Nonparticipants ^c	Participants ^c	
Locate resources for individual children	568/830 (68.4)	398/701 (56.8)	24/141 (17.0)	374/560 (66.8)	< .001
Use computers and Internet to find information about child health policy and related activities	553/825 (67.0)	421/692 (60.8)	35/151 (23.2)	386/541 (71.3)	< .001
Identify community needs	249/810 (30.7)	167/557 (30.0)	38/316 (12.0)	129/241 (53.5)	< .001
Member of a team to promote child health	248/814 (30.5)	252/572 (44.1)	77/332 (23.2)	175/240 (72.9)	< .001
Speak publicly on behalf of children's health	228/820 (27.8)	293/571 (51.3)	110/351 (31.3)	183/220 (83.2)	< .001
Use population-level data to understand the determinants of child health	202/802 (25.2)	154/548 (28.1)	33/352 (9.4)	121/196 (61.7)	< .001

^aData are given as number/total number of respondents (percentage) who answered the question about participation.

^bData are given as number/total number of respondents (percentage) who participated in an activity and reported a skill level.

^cData are given as number (percentage) of respondents.

COMMENT

The results of this study reveal an overall decrease in pediatrician involvement in community child health activities from 1989 to 2004. Although this decline is consistent with overall declines in civic engagement among the general public,¹⁹ it is particularly concerning because partnerships with community organizations are viewed as integral to addressing the social and community factors that influence children's health and inequalities.⁵ The AAP recognizes community pediatrics as "an integral part of the professional role and duty of the pediatrician."^{9,4(p1092)}

Our findings, therefore, suggest implementation challenges. Of note, the decline in involvement is largely driven by a decline in paid participation. For some publicly funded programs serving children, declines in federal investments may contribute to a decline in paid opportu-

nities for pediatricians.^{20,21} Efforts are needed to understand whether paid positions in government and philanthropic organizations are less available or whether reimbursement for such activities is so low as to preclude paid participation by individuals or support from their employers. It is possible that for some activities, pediatricians perceive that other systems, such as insurance expansions for children with special health care needs, have diminished the need for involvement of individual physicians. It is also possible that barriers related to insufficient time, competing family and work demands, and limited knowledge and training contribute to declining involvement.²²

In 2004, Solomon et al reported that 72% of pediatric residency programs required involvement of trainees in 4 or more community settings.¹⁰ As residency training programs adopt curricula to meet training require-

ments for structured experiences in community and child advocacy, it is possible that the workforce increasingly will be equipped with related skills and capacity. Such skills and capacity have the potential to benefit children if the more than 70% of pediatricians willing to spend at least an hour per month on community activities engage in these activities and advocate effectively.²³ Interestingly, in this study, more recent respondents report growing expectations for involvement and a willingness to spend time in community activities.

We found that those with recent involvement also reported higher skill levels. Similarly, Nader et al¹¹ reported that involvement in school health activities during residency was associated with involvement later in practice. In these analyses, participation was associated with higher self-reported skill levels.

Several study limitations should be noted. We asked respondents about involvement in selected activities in 4 domains. However, comparable declines in overall involvement also were reported using a global measure. Second, this global measure (any participation without specifying activities) asked about current involvement in 1989 and involvement in the past 12 months in the later 2 surveys. However, this would tend to underestimate levels of involvement in 1989 and the subsequent decline. Moreover, questions regarding involvement in specific activities related to the past 12 months in all surveys. Third, it is possible that respondents who chose to complete the survey were influenced by social desirability and overreported involvement. However, this same phenomenon likely would have influenced earlier surveys, suggesting that the trend is comparable. Fourth, respondents did not comment on the quality of experience. Although pediatricians reported fewer activities over time, it is possible that the quality of community experiences among those involved was constant or enhanced. Fifth, response rates to Periodic Surveys have declined over time. However, Cull et al²⁴ show minimal response bias with AAP survey response rates.

These data largely precede recent initiatives such as the Anne E. Dyson Community Pediatrics Training Initiative, which aims to provide residents with the skills and knowledge related to improving the health of children in their communities.²⁵ However, many residency programs, in addition to those funded through the Dyson Initiative, have had long-standing interests in equipping residents with community pediatrics skills.²⁵⁻²⁸ Since 2002, the Accreditation Council for Graduate Medical Education Residency Review Committee for Pediatrics has required "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."²⁹ In addition, medical school curricula increasingly are exposing students to community engagement through structured curricular activities.³⁰⁻³² In 2007, the Association of American Medical Colleges adopted a new standard to support service learning activities among medical students.³³

In conclusion, although pediatricians have a strong sense of responsibility for promoting children's health, they report declining current involvement in community activities, particularly with regard to paid opportunities. The declining involvement reported among practicing pediatricians

in conjunction with heightened exposures to community health training during residency may contribute to the growing percentage who perceive their current level of involvement to be inadequate. However, these same pediatricians also expect greater involvement in the next 5 years. Whether acquisition of new skills during residency translates to increased participation in community activities may depend on whether activities are structured to meet the realities of the busy lives of pediatricians and whether opportunities are sufficiently valued by employers to encourage involvement as part of professional responsibilities.

Accepted for Publication: December 19, 2007.

Author Affiliations: Department of Population, Family and Reproductive Health, Johns Hopkins Bloomberg School of Public Health, Baltimore, Maryland (Drs Minkovitz and Chandra and Ms Grason); Division of Health Services Research, American Academy of Pediatrics, Elk Grove Village, Illinois (Ms O'Connor); RAND Corporation, Arlington, Virginia (Dr Chandra); Department of Pediatrics, University of Rochester School of Medicine and Dentistry, Rochester, New York (Dr Aligne); Maternal and Child Health Bureau, Health Resources and Services Administration, Rockville, Maryland (Dr Kogan); and Goldsboro Pediatrics, Goldsboro, North Carolina (Dr Tayloe).

Correspondence: Cynthia S. Minkovitz, MD, MPP, Department of Population, Family and Reproductive Health, Johns Hopkins Bloomberg School of Public Health, 615 N Wolfe St, Room E4636, Baltimore, MD 21205 (cminkovi@jhsph.edu).

Author Contributions: Dr Minkovitz had full access to all the data in the study and takes responsibility for the integrity of the data and the accuracy of the data analysis. *Study concept and design:* Minkovitz, O'Connor, Grason, and Aligne. *Acquisition of data:* O'Connor. *Analysis and interpretation of data:* Minkovitz, Grason, Chandra, Aligne, Kogan, and Tayloe. *Drafting of the manuscript:* Minkovitz and Chandra. *Critical revision of the manuscript for important intellectual content:* Minkovitz, O'Connor, Grason, Chandra, Aligne, Kogan, and Tayloe. *Statistical analysis:* Minkovitz, Chandra, and Kogan. *Obtained funding:* Minkovitz and Grason. *Administrative, technical, or material support:* Minkovitz, O'Connor, Grason, Aligne, and Tayloe. *Study supervision:* Minkovitz.

Financial Disclosure: None reported.

Funding/Support: This study was funded by the Maternal and Child Health Bureau, Health Resources and Services Administration.

Disclaimer: The views expressed in this article are those of the authors and do not represent policies of the AAP.

Additional Information: These analyses were conducted as part of the Dyson Initiative National Evaluation and informed by the AAP Periodic Survey No. 60 Workgroup: Dr Aligne, Ms Grason, David E. Heppel, MD (Maternal and Child Health Bureau, Health Resources and Services Administration); Dr Kogan; Dr Minkovitz; Ms O'Connor; Judith S. Palfrey, MD (Children's Hospital Boston, Boston, Massachusetts); Dr Tayloe; and Thomas F. Tonniges, MD (Boys Town National Research Hospital, Omaha, Nebraska).

Additional Contributions: Lynn Olson, PhD, performed a thoughtful review of the manuscript.

REFERENCES

1. Gruen RL, Pearson SD, Brennan TA. Physician-citizens: public roles and professional obligations. *JAMA*. 2004;291(1):94-98.
2. Whitcomb ME. Fostering civic professionalism in tomorrow's doctors. *Acad Med*. 2005;80(5):413-414.
3. Stevens RA. Public roles for the medical profession in the United States: beyond theories of decline and fall. *Milbank Q*. 2001;79(3):327-353.
4. Rushton FE Jr; American Academy of Pediatrics Committee on Community Health Services. The pediatrician's role in community pediatrics. *Pediatrics*. 2005;115(4):1092-1094.
5. Satcher D, Kaczorowski J, Topa D. The expanding role in improving child health in the 21st century. *Pediatrics*. 2005;115(4)(suppl):1124-1128.
6. Haggerty RJ. Child health 2000: new pediatrics in the changing environment of children's needs in the 21st century. *Pediatrics*. 1995;96(4, pt 2):804-812.
7. Haggerty RJ. Community pediatrics: can it be taught? can it be practiced? *Pediatrics*. 1999;104(1, pt 2):137-142.
8. Palfrey JS, Tonniges TF, Green M, Richmond J. Introduction: addressing the millennial morbidity—the context of community pediatrics. *Pediatrics*. 2005;115(4)(suppl):1121-1128.
9. Rezet B, Risko W, Blaschke GS; Anne E. Dyson Community Pediatric Training Initiative Curriculum Committee. Competency in community pediatrics: consensus statement of the Dyson Initiative Curriculum Committee. *Pediatrics*. 2005;115(4)(suppl):1172-1183.
10. Solomon BS, Minkovitz CS, Mettrick JE, Carraccio C. Training in community pediatrics: a national survey of program directors. *Ambul Pediatr*. 2004;4(6):476-481.
11. Nader PR, Broyles SL, Brennan J, Taras H. Two national surveys on pediatric training and activities in school health: 1991 and 2001. *Pediatrics*. 2003;111(4, pt 1):730-734.
12. Minkovitz C, Grason H, Aliza B, Hutchins V, Rojas-Smith L, Guyer B. Evaluation of the Community Access to Child Health Program. *Pediatrics*. 1999;103(6, pt 3):1384-1393.
13. Minkovitz CS, Chandra A, Solomon BS, McDonnell KA, Silver GB, Tonniges TF. Community pediatrics: gender differences in perspectives of residents. *Ambul Pediatr*. 2006;6(6):326-331.
14. Pan RJ, Clark-Chiarelli N, Peters AS, Block SD. Intention to practice primary care by pediatric residents: nature or nurture? *Clin Pediatr (Phila)*. 1999;38:473-479.
15. Gruen RL, Campbell EG, Blumenthal D. Public roles of US physicians: community participation, political involvement, and collective advocacy. *JAMA*. 2006;296(20):2467-2475.
16. Cull WL, Mulvey HJ, O'Connor KG, Sowell DR, Berkowitz CD, Britton CV. Pediatricians working part-time: past, present, and future. *Pediatrics*. 2002;109(6):1015-1020.
17. Guyer B; Community Access to Child Health Evaluation Team. Promoting community pediatrics: recommendations from the Community Access to Child Health Evaluation. *Pediatrics*. 1999;103(6, pt 3):1370-1372.
18. O'Connor KG; AAP Division of Health Service Research. Findings from Periodic Survey of Fellows #60: Pediatricians' Involvement in Community Child Health Services and Activities: 2004. Elk Grove Village, IL: Division of Health Services Research, American Academy of Pediatrics; 2005.
19. Putnam R. *Bowling Alone: The Collapse and Revival of American Community*. New York, NY: Simon and Schuster; 2000.
20. Steuerle CE, Reynolds G, Carasso A. Investing in children. Available at: http://www.partnershipforsuccess.org/docs/urban2007_losingground_report.pdf. Accessed December 15, 2007.
21. Carasso A, Steuerle CE, Reynolds G. Kids Share 2007: how children fare in the federal budget. http://www.urban.org/UploadedPDF/411432_Kids_Share_2007.pdf. Accessed December 15, 2007.
22. Aigne CA, Kaczorowski JM, Allan M, Aten M, Shipley LJ. Barriers to pediatrician participation in community health activities [abstract]. *Pediatr Res*. 2003;53(4)(pt 2, suppl):475.
23. Aigne CA, Kaczorowski J. Afterword. *Pediatrics*. 2003;115(4):1212.
24. Cull WL, O'Connor KG, Sharp S, Tang SS. Response rates and response bias for 50 surveys of pediatricians. *Health Serv Res*. 2005;40(1):213-226.
25. Palfrey JS, Hametz P, Grason H, McGaskill QE, Scott G, Chi GW. Educating the next generation of pediatricians in urban health care: the Anne E. Dyson Community Pediatrics Training Initiative. *Acad Med*. 2004;79(12):1184-1191.
26. Lozano P, Biggs VM, Sibley BJ, Smith TM, Marcuse EK, Bergman AB. Advocacy training during pediatric residency. *Pediatrics*. 1994;94(4, pt 1):532-536.
27. Roth EJ, Barreto P, Sherritt L, Palfrey JS, Risko W, Knight JR. A new, experiential curriculum in child advocacy for pediatric residents. *Ambul Pediatr*. 2004;4(5):418-423.
28. Chamberlain LJ, Sanders LM, Takayama JI. Child advocacy training: curriculum outcomes and resident satisfaction. *Arch Pediatr Adolesc Med*. 2005;159(9):842-847.
29. Accreditation Council for Graduate Medical Education. Program requirements for residency education in pediatrics. Available at: http://www.acgme.org/acWebsite/downloads/RRC_progReq/320pr106.pdf. Accessed December 14, 2007.
30. Sharp MC, Lorch SC. A community outreach training program for pediatric residents and medical students. *J Med Educ*. 1988;63(4):316-322.
31. Bland CJ, Starnaman S, Harris D, Henry R, Hembroff L. "No fear" curricular change: monitoring curricular change in the W. K. Kellogg Foundation's National Initiative on Community Partnerships and Health Professions Education. *Acad Med*. 2000;75(6):623-633.
32. Hunt CE, Kallenberg GA, Whitcomb ME. Trends in clinical education of medical students: implications for pediatrics. *Arch Pediatr Adolesc Med*. 1999;153(3):297-302.
33. Liaison Committee on Medical Education. Functions and structure of a medical school: standards for accreditation of medical education programs leading to the M.D. degree. Available at: <http://www.lcme.org/functions2007jun.pdf>. Accessed December 14, 2007.

Announcement

Trial Registration Required. In concert with the International Committee of Medical Journal Editors (ICMJE), *Archives of Pediatrics and Adolescent Medicine* will require, as a condition of consideration for publication, registration of all trials in a public trials registry (such as <http://ClinicalTrials.gov>). Trials must be registered at or before the onset of patient enrollment. This policy applies to any clinical trial starting enrollment after July 1, 2005. For trials that began enrollment before this date, registration will be required by September 13, 2005, before considering the trial for publication. The trial registration number should be supplied at the time of submission.

For details about this new policy, and for information on how the ICMJE defines a clinical trial, see the editorials by DeAngelis et al in the September 8, 2004 (2004;292:1363-1364) and June 15, 2005 (2005;293:2927-2929) issues of *JAMA*. Also see the Instructions to Authors on our Web site: www.archpediatrics.com.