From Physician-Centered to Community-Oriented Perspectives on Health Care: Assessing the Efficacy of Community-Based Training

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Abstract

Purpose

To understand the influence of a community-based child advocacy block rotation on the perspectives of first-year pediatric residents and whether this influence persists.

Method

The authors conducted semistructured interviews to assess the impact of the training program on pediatrics residents' perspectives regarding child advocacy and their understanding of the role of the community members and community-based assets in child advocacy. Three cohorts of first-year residents at the University of California, Davis, participated in the two-week community collaborative rotation from 2000–03. Two cohorts of 23 first-year

residents were interviewed. In 2003, the first cohort of nine third-year residents was reinterviewed to assess long-term impact. Interviews were conducted before and after residents' experiences with community collaboratives. Transcripts of interviews were reviewed using an iterative process, and a coding system was applied using a qualitative software program.

Results

Comparison of pre- and postrotation interview data showed that residents' conceptions of advocacy shifted from ideas about being a pediatrician for the community to being a pediatrician in the community. This change in definition reflected a view of the pediatrician as facilitator, a community asset, rather

than as a central administrator of child health affairs. This shift persisted through the completion of residency.

Conclusions

These findings suggest that substantive interaction in a community collaborative can provide a starting point for residents to reconceptualize their role as pediatrician, for understanding the diverse contexts characteristic of children's circumstances, and for identifying and using community-based assets for improving child health. Definition changes persisted through residency and may influence residents' future behavior in clinical practice.

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Among the greatest challenges to the health of children in the United States today is the complex influence of community and social environment. Increasingly, pediatricians are recognizing that these issues are changing the character of pediatric care and research.1 In 1999, the American Academy of Pediatrics issued a policy statement on the pediatrician's role in community pediatrics, providing a specific set of recommendations that define "community pediatrics" as an indispensable component of pediatric medicine.2 This policy stresses that translating community pediatrics into practice requires pediatricians to collaborate with parents, schools,

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professional agencies, and community organizations.3-5 Critical to these recommendations is a call for pediatric resident training that reinforces the "long-standing role of pediatricians: promoting the health and well-being of all children in the communities they serve."2 p. 1304 In order to train community pediatricians, residency programs must teach residents to think and practice differently.6 In community pediatrics, a pediatrician's concepts of "community" are central to pediatric practice; therefore, residency curricula must focus on a wide range of social, economic, cultural, and political factors that influence the health of children.

The key steps in training pediatricians to practice effective community pediatrics are development of an adequate perspective on and recognition of "community" as central to child health, an ability to synthesize clinical practice and public health models, and development of a firm commitment to identify and use local community

resources to address child health problems.² To develop a curriculum in community pediatrics, the Pediatric Residency Program at the University of California, Davis (UCD), implemented a community-based child advocacy training program in 1999 called Community and Physicians Together (CPT). The experience includes a twoweek community-based child advocacy block rotation during the first year of training, followed by protected time to complete a long-term project in collaboration with a specific community to address the health care needs of the children in that community. Pediatric residents are assigned to specific volunteer community associations, called collaboratives, that are composed of people who live in the community, as well as those who work in schools, community associations, local businesses, and government and private agencies.7

To understand the influence of the twoweek block rotation on residents' perspectives, values, and understandings of their role in the community and of child advocacy, we conducted a series of semistructured interviews before and after the rotation. We also scheduled exit interviews with the first cohort of residents to complete the program to assess the potential long-term impact of the program. Based on our analysis of data from residents' interviews, we provide a conceptual model for learning community pediatrics and child advocacy and for how residents might come to conceive of their practice when equipped with knowledge specific to social contexts that influence child health in the communities where children live.

Method

Community experience

The CPT partners pediatric residents and communities, applying the principles of asset-based community development to improve child health. Asset-based community development represents a shift from the traditional focus of assessing needs and deficits within communities to identifying and mobilizing local strengths and assets with the goal of increasing individual and community access to social support and information as well as shared resources and material goods within the community.8 Pediatric residents receive the equivalent of two weeks of protected time without call for the community advocacy program each year of their residency. The associate director (RJP) meets with each resident at the beginning of his or her rotation for orientation and discussion about how the resident might apply the principles of asset-based community development during the rotation. An additional meeting takes place at the end of the first-year rotation to discuss what residents have learned about their community.

The full details of the CPT program have been described elsewhere.8 In summary, first-year residents are assigned to one of four community collaboratives based on the "fit" between the community's and the residents' interests. During their two-week block, residents tour the community under the guidance of the collaborative coordinator to identify community assets such as community leaders, voluntary associations, agencies, and businesses. The pediatric residents participate in collaborative activities and meetings, interact with community

members, and learn about local social service agencies and organizations from the perspective of a community member.

Study sample

Three cohorts of first-year pediatric residents at UCD participated in the twoweek CPT block rotation from 2000 to 2003. We interviewed two cohorts of first-year residents (n = 23) and one cohort of third-year residents (n = 9). To assess the impact of this experience on pediatric residents, we conducted semistructured interviews with all residents both before and after the block rotation. To assess implications for longterm effect on the views of pediatric residents' eventual practice, we also interviewed the first group of residents to complete the program at the end of their third year of residency. Because this study involved the evaluation of an educational intervention, it received an exemption from full committee review by the UCD institutional review board. During 2000-01, interview questions were piloted on the first cohort of pediatric residents and these data are reported separately.9 The interview questions were significantly modified, and we report data from the subsequent two cohorts of first-year residents (2001-02 and 2002-03) in this article as well as the end-of-residency interview data from the original 2000-01 first-year residents.

Semistructured interviews

Residents were interviewed by one of two trained interviewers (LFS and NMH) using a set of guiding questions and probes to ensure consistency between interviewers and across the residents' interviews. The five guiding questions were open-ended to elicit residents' definitions and understandings of advocacy, pediatricians' roles in communities, necessary resources, and overall expectations for the rotation (see List 1). Each question was followed by a series of prompts to generate more detailed discussion, including specific examples, where necessary. The interviews averaged 30 minutes (range: 25–45 minutes) in length; they were audiotape recorded and then transcribed for analysis. The lead qualitative researcher (DAP) piloted the guiding questions and reviewed 25% of the audiotaped interviews to ensure consistency between interviewers and across interviews.

Qualitative data analysis

Coding categories and related themes emerged through an iterative process of transcript review. Individually, a subset of team members (DAP, LFS, and NMH) reviewed all of the interview transcripts and noted the predominant and recurrent themes in residents' definitions of and perspectives on child advocacy, community assets and their use, and the role of pediatricians in matters of child health. All members of the project team met on several occasions to discuss these emergent themes and patterns and how they might be categorized, resolving disagreement about categorization by discussing and noting differences in opinion among team members, and by review of positive and negative examples in the data. Members developed consensus regarding salient categories for coding based on data and its relevance to resident training in community pediatrics.

All transcripts were put into a standard format and entered into a software package to facilitate qualitative data analysis.10 Coding categories, developed during the iterative process of inductive review and consensus, were applied to all transcripts. Data segments based on definitions of coding categories were abstracted from transcripts and organized into relevant thematic groups. The software program was then used to search across categories for recurring patterns in the coded data. Residents' prerotation responses were compared with postrotation responses as well as with exit interviews from the first cohort of residents through constant comparison between categories to assess consistency and change in perspectives (i.e., definitions), values, and understandings before and after the CPT experience.11

Results

The average age of the residents who participated in the CPT from 2000 to 2003 was 30 years. Nineteen of the residents (59%) were women. Nineteen (59%) were white, seven (22%) were Asian, three (9%) were Latino, two (6%) were African American, and one reported an "other" ethnic status.

List 1

Interview Guide Used with Pediatric Residents Who Participated in the Community-Based Child Advocacy Training Program, "Community and Physicians Together," University of California, Davis, 2000–03

Prerotation interview

How do you define advocacy?

How do you conceive of your role in the community as a pediatrician?

What factors might enhance your ability to advocate effectively in matters of child health? What barriers do you envision?

How do you conceive of your role in the community as a pediatrician?

What role does the community play in helping to support (advocacy in) matters of child health? Can you give me some specific examples from your collaborative experience?

What kinds of assets/resources do you feel are necessary for effective advocacy in matters of child health as a pediatric resident?

What assets do you bring to bear as a pediatric resident?

What assets can the community bring to bear?

Postrotation interview (also included all the questions in the prerotation interview)

Describe for me your pediatric collaborative experience.

How did you think about advocacy before your collaborative experience?

How do you now think about advocacy?

How did this rotation change your original expectations and/or notions of advocacy?

What factors might enhance your ability to advocate effectively in matters of child health? What barriers do you envision?

How do you conceive of your role in the community as a pediatrician?

What role did the community play in helping to support (advocacy in) matters of child health? (specific examples from collaborative experience)

What kinds of assets/resources do you feel are necessary for effective advocacy in matters of child health as a pediatric resident?

What assets did you bring to bear as a pediatric resident?

What assets did the community bring to bear?

Describe the role of networking/partnership building in child health advocacy within a community. How did this work in your recent experience?

Exit interview (also included all the questions in the pre- and postrotation interviews)

What did you enjoy least/most about your collaborative experience? Why was this aspect the least/most enjoyable part of your experience?

How do you see this experience as impacting your future practice as a pediatrician? Do you have any suggestions for how to improve the collaborative experience?

Prerotation interviews: general perspectives on advocacy and community

Table 1 shows selected themes that emerged from inductive analysis of interview data. During their prerotation interviews, most residents could not articulate specific issues that might be addressed by community pediatricians. Residents' perspectives of advocacy stressed that the pediatrician should be someone who would identify problems and provide solutions. All residents characterized advocacy from the standpoint of empathy and protection, including "being a voice" and "addressing concerns" for a specific population.

Nineteen of the residents who discussed specific kinds of advocacy placed

emphasis on medically related issues (83%), such as immunizations, well-baby checks, and health care education for parents. Only two residents (9%) mentioned economic, social, or neighborhood issues, such as health care access, living conditions, or safety, as matters important to pediatric advocacy. When prompted to define "community" and to identify potential resources, 12 residents (52%) emphasized traditional institutions, such as schools, churches, and hospitals, as both community identifiers and important communitybased resources. Residents described communities in terms of institutions, where "different groups come together," that might serve as a central place for pediatricians to establish connections and implement change. Five residents (25%) named federally funded or locally

sponsored social welfare programs as important community-based resources. In general, residents envisioned community assets as inherent in established institutions and social programs, rather than as specific factors or people within the local community. During the prerotation interviews, the most frequently identified barrier to community involvement and child advocacy was time (no. = 13, 56%), followed by cultural or communication-related barriers (no. = 7, 30%).

Postrotation interviews: advocacy as engaging and educating

Postrotation interviews revealed a different conceptualization of advocacy and the pediatrician—community relationship (see Table 1). After the two-week block rotation, residents began to recognize advocacy in terms of resource awareness and education. Eighteen of the 23 residents (78%) articulated a shift from a focus on clinical needs to more holistic understandings beyond physical health. A comment from one resident typified this shift in perspective:

You can take care of the whole family... the environment that the kids live in and the schools that they go to; the places they play and the stores they shop in and all those kind of things. (PRI0202)

Many residents described the community as a place with an identity and assets (no. = 17,74%), rather than solely in terms of its institutionalized structures and programs. Residents also referenced the importance of specific community members in positions of leadership (no. = 17,74%). They recognized that these community leaders might offer more accurate perspectives on what a neighborhood needs and how individuals experience life in their community than would a single pediatrician working in a traditional clinical practice. This new concept meant defining barriers that might jeopardize connections and understandings, barriers such as transportation, language, culture, education, economics, and time.

Further evidence of the conceptual impact of the two-week block rotation came from residents' descriptions of specific situations, illustrating the importance of social experience to understanding communities and resources. In one particularly noteworthy example, pediatric residents were asked to "take the

Table 1
Selected Comments by Theme From Interviews of Residents Who Participated in the Community-Based Child Advocacy Training Program, "Community and Physicians Together," University of California, Davis, 2000–03

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|---|--|---|
| Theme | Comments before rotation | Comments after rotation |
| Advocacy definition | because our patients are kids, [pediatricians] would be standing up for the children, probably mostly in the areas of health care not only just in emergencies but well baby checks, regular physical exams, immunizations, even education in health care. (BRI1202) | [My perspective] was really sort of a skeleton, and now that I've come through the program, I've colored it all in trying to make children's lives healthier through interventions, education, safety. (PRI3901) |
| | you have to care about who[m]ever it is you're advocating for in this case, children. (BRI3101) speaking up for people who [cannot] speak for themselves, and using your abilities and skills to have their concerns be addressed. (BRI3801) | to make sure that the kids and the families are appropriately using the resources that they have available for them that they know what resources are available for them in the community. (PRI3201) [Advocacy] is not a small thing. It's very broad, but I think that in the end, it's all for the benefit of the [children] and their families. There are many ways other than just taking care of kids' physical health. You can take care of the whole family the environment that the kids live in and the schools that they go to; the places they play and the stores they shop in and all those kind of things. If you can have any impact in any of those little areas that can really affect their physical health and their mental health. (PRI0202) |
| | | |
| | Community | |
| Any time we do get involved with the community, they're going to teach us something about resources (PRI3701) | | |
| Assets | just having different programs already established and in place provides contact people that can help you. (BRI1302) | human resources, just people willing to volunteer time, energy willing to donate capital of their own people who are in the community, willing to give up things without the thought of monetary profit, but with the ideas that there would be some social profit (PRI3901) |
| | | I was really impressed with the, with the dental program getting some dentists to volunteer and to provide services once the screening was done. [Collaboratives] also had relationships with the public the recreational department to get camps going for the kids at a low cost, so the kids would have something to do during their free time (PRI0101) |
| Barriers to effective advocacy | Bureaucracy paperwork may be an issue. (BRI0102) | a lot of social issues in terms of transportation, money, and also education level of the parents and [parents'] understanding the importance of certain issues for their child's health. (PRI0102) |
| | [T]ime is an issue for a lot of people, especially residents. We don't have a lot of time to be advocates. We don't even know what needs to be done or where to get started. (BRI0202) | |
| | Time and availability it's hard to be just one person and make any kind of real difference. (BRI0702) | If interest is there, a true interest, time is going to be one of the only barriers that gets in the way. Language would be [a barrier] and transportation is a big one (PRI0802) |
| | Communication especially if you don't speak the same language. (BRI0502) | Language is always a barrier there are patients in the underserved areas that speak many different languages I speak Spanish but there are cultural issues as well. (PRI0902) |
| | | |

role" of a community member to identify available resources to solve common problems that community members experience. As one resident said:

We were given scenarios...putting us in the place of a single mom with no car with a sick child [in that community] without insurance and without a doctor. (PRI0802)

After their block rotations, residents' perspectives on community began to emphasize the specific contexts within a

community where a pediatrician might work. Pediatric residents acknowledged communities' self-conceptions and the relevance of community-based issues.

The CPT experiences provided residents the opportunity to see that a pediatrician "can't do it all" and, therefore, must rely on community members to identify issues and provide appropriate resources. By direct experience, residents also learned about some of the areas where community involvement matters a great

deal to the overall well being of children and families, beyond traditional clinical settings. For example, one resident described the following experience:

The Hmong women [in the community] would get letters from [their children's] school to bring cupcakes or whatever and they didn't know what those were. So the Collaborative volunteers had a little "project cupcake" where they brought the Hmong women in and taught them how to make cupcakes.... [I]t was apparently causing the Hmong women a lot of

distress [because] when their kids go to school and don't have the cupcakes, they feel bad. (PRI0402)

This more complex understanding of communities prompted 16 of the 23 residents (69%) to envision the relevance of community members in identifying and providing specific resources. Understanding differences in community coupled with a shift in perspective emphasizes a clearer view of effective advocacy based on difficulties encountered in engaging and educating diverse groups.

Residents' experiences also led them to develop more specific perspectives about what (or who) might serve as a resource. Sixteen residents (69%) noted that having a better understanding of how to conceptualize community resources would assist them in appropriately referring future patients. Many also remarked that the most important assets are "human resources" (no. = 14,61%). Collaborative experiences engendered an understanding of the kinds of questions they might ask patients and family about community needs and available assets as well as limitations to garnering particular kinds of resources. Importantly, all residents noted that in future practice they could seek information about local needs and resources from community leaders, local public health officials, fellow physicians, and neighborhood directories. Although some residents maintained the importance of healthrelated concerns and a traditional clinical focus even after their collaborative experience (no. = 9, 39%), they still began to comment on the potential contributions and impact of involving local community members in a dialogue about community concerns regarding child health.

Exit interviews: the potential staying power of a community-based program

Third-year residents completing their training showed an even greater understanding of community pediatrics than did first-year residents. In their exit interviews, third-year residents explained that their conceptions of being a pediatrician were defined by "hands-on" experience with a collaborative in various types of projects designed to benefit the community. As a result, conceptions of advocacy transcended postrotation ideas about advocates as facilitator of health

within the community, to advocates as participating community members aimed at improving communities as a whole. As one participant noted:

... now I see myself not so much as the leader but as a part of the community willing to help cross that boundary as a member of the medical community and as a part of the community. I would like to link those two together. (EI01)

Over half of the third-year residents (no. = 6) talked about what advocacy means in terms of getting involved in the community, translating this activity into an understanding of how a community works, as the following comments demonstrate:

Well, I think my definition was broad before but has been filled in. There is more than lobbying for something; there is more than working in a clinic. There is all the parts in between. If anything, I've learned more about the grassroots level, which begins in the community. (EI01)

A lot of what I've learned in terms of advocacy was on in our training. Just having the opportunity to work with a collaborative and see how that organization functions and how the different people work, and also just the day-to-day obstacles and things that you have to contend with that you can't learn in a textbook or any other way except for just being thrown in there and have to go through it.... the social interactions that you build in doing gardening with community members [for example] are absolutely crucial to being an effective community advocate. (EI03)

After three years, all nine of the thirdyear residents (100%) could articulate what specific resources might work in a community and how ideas and resources could be introduced. They also pointed out that the types of assets introduced by outsiders to the community may not be the types of assets that the community needs, as the following comments demonstrate:

You can't just walk into some neighborhoods and say "I want to do something." You really need to have a group of people in the community that have an idea of what makes up the community and what the community's needs are if you want to come in and be able to work there. (EI04)

And I would say the willingness of the community [members] to become their own advocate and show interest in their own health related matters. (EI02)

The third-year residents displayed a sense of confidence after their "hands-on" experience in the community. Being able to know what programs existed and what type of population they served eliminated the overwhelming barriers most pediatricians often face of not knowing the resources or specific community assets well enough to refer patients. All residents stressed the importance of establishing good lines of communication between health services programs and community members, or in the words of one resident, emphasizing the significance of "community members becoming their own advocates, show[ing] interest in their own health-related matters" (EI02). Another resident summed up the impact of the program on her future practice, "I feel more comfortable with becoming more informed about the [community] resources . . . it reinforces [that] as a pediatrician, I affect children's lives" (EI06).

Discussion

In this study, we sought to determine whether and how a two-week community pediatrics block rotation might change pediatric residents' perceptions of child advocacy and whether these perceptions have the potential to persist throughout residency training and into practice. We found that residents' prerotation definitions of "advocacy" were nonspecific, medically based, and pediatrician-centered. For example, most residents characterized a pediatric advocate as "standing up for the children," providing a "voice," or serving as an educator for people who "cannot speak" or who do not have suitable information or resources. Furthermore, residents described the role of pediatric advocate as an extension of their clinicbased work—identifying problems and implementing solutions. Residents understood the pediatrician as child advocate based on a linear process, where the pediatrician is the central figure who assesses problems, identifies solutions, and implements plans for change, rather than a more interactive view of pediatrician-community relations that requires collaboration between pediatricians and diverse members of communities. Residents most frequently identified "time" as the most important resource for effective child advocacy. This perspective of pediatrician as the "implementer" and "manager" of community action, rather than a

collaborator, reinforced residents' views that lack of time meant lack of effective action.

Figure 1 shows a model of the conceptual shift in residents' understanding after they completed the two-week block rotation. Importantly, the rotation experience expanded residents' considerations of the pediatrician's role from an overseer of health affairs to a facilitator of child health. Our interview data suggested a shift in residents' conceptions of advocacy from ideas about being a pediatrician for the community to perspectives on being a pediatrician in the community. With the assistance of the facilitator, pediatric residents considered the value of engaging members of the community including themselves as community members—in a dialogue to meet the community's needs. In addition, firstyear residents moved from meeting the standard temporal and language-related challenges of daily practice to understanding the need to educate diverse communities.

Possibilities for educating and mobilizing emerged from the dialogue between pediatricians and community members, further connecting and even empowering community members to identify their own strengths and resources.

Community members might also be empowered to learn how to use their own assets. In the following excerpt, one resident articulated how his new vision might affect future practice:

We want to have community changes that are based on the assets of a particular community and make changes based on that or improvements based on that ... not based on what it is others outside perceive the community to need or want, but to make best use of the resources that are available to all in the community. (PRI3101)

Our program is germane to disciplines beyond pediatrics. The Institute of Medicine's 2001 report *Crossing the Quality Chasm: A New Health System for the 21st Century* states that "health professionals are not adequately prepared to address shifts in the nation's patient population," 12, p. 2 including greater diversity, affliction by more than one chronic illness, and increased desire for health information. 12 The report explains that innovative training programs are rare exceptions to conceptions and

delivery of primary or chronic care. 12,13 Importantly, studies conducted in medical arenas where physicians and nonphysicians have worked effectively together have demonstrated improved patient outcomes 14,15 and reduced health care costs for chronic conditions. 15 Yet Bodenheimer et al. 14 note that a principal roadblock to this type of teamwork has been relationship building and communication across diverse groups.

Our qualitative program evaluation highlights a feasible starting point for patient-centered care with a communitycentered focus: training residents to draw together the resources of different groups of professionals and to emphasize the assets of individuals and communities in addressing health care needs. Previous studies have demonstrated benefits from incorporating an understanding of children's social environments into pediatric residency training.16-18 For example, several residency programs have reported on the impact of communitybased experiences on their residents. In San Diego, California, a one-month block rotation that included structured visits to schools and community agencies increased pediatric residents' selfperceived competence in community pediatrics.¹⁸ In Rochester, New York, residents increased their knowledge of life in poverty and were more likely to value a community rotation after a two-week community-based rotation.¹⁹ In family medicine, many residency programs provide community experiences as part of training in community-oriented primary care. Home visits, meetings with community leaders, and participation in a longitudinal project were associated with perceived competence in

community medicine.²⁰ However, there are few data on the impact of these experiences on residents' perceptions of their role as community physicians and child advocates; therefore, we cannot directly compare these findings with those reported in our study.

Our study had several limitations. The fact that we conducted our study at a single institution with a relatively small number of residents may limit the generalizability of our findings. In addition, our data emphasize residents' conceptions of community, conceptions which may not reflect community leaders' characterizations of their own communities. Finally, we have not vet determined whether changes in thinking will actually result in behavioral changes or increased participation of these pediatric residents in community pediatrics or efforts of child advocacy once they enter clinical practice. Attitudes appear to persist throughout the residency program in large part because residents maintain involvement with their collaboratives during their three-year training by carrying out community-based projects with the support of the Collaborative leaders as well as their chief resident, the associate director for community programs (RJP), and the director of the Pediatric Residency Program (DCW). Support comes in the form of discussing project ideas and implementation as well as discussion with and assessment of the residents' perspectives on their collaborative involvement before and after the first year of their rotation. More extensive evidence from systematic comparison with those who have not participated in our training program and

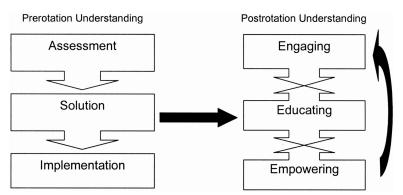


Figure 1 A model showing the changes in residents' understanding of the pediatrician's role in community pediatrics before and after the residents participated in the community-based child advocacy training program, "Community and Physicians Together," University of California, Davis, 2000–03

through multifaceted and longitudinal studies, including feedback from program directors, collaborative leaders, and individual community members, could address some of the weaknesses in our study design.

To promote "the health and well-being of all children in the communities they serve,"2, p. 1304 pediatric residents must understand the impact of communities on their members and on their own roles as potential community advocates for child health. Focus on matters of negotiation and context within a community collaborative may offer firstyear residents a perspective on the role of pediatrician as a community asset, engaging, educating, and empowering local members in matters of child health vital to their communities. Our findings suggest that substantive interaction with community members and associations can provide a starting point for residents to reconceptualize their role as pediatrician, for understanding the diverse social and environmental contexts characteristic of children's circumstances and how these may affect the health of children, and for identifying and using resources in the community to improve child health. Community-based experiences such as those provided in the UCD CPT program hold promise for teaching residents to become more effective community pediatricians.

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Did You Know?

The founders of the Mayo Clinic pioneered the concept, in 1892, of the fully salaried, integrated group practice of medicine.

For other important milestones in medical knowledge and practice credited to academic medical centers, visit the "Discoveries and Innovations in Patient Care and Research Database" at (www.aamc.org/innovations).