

Issue Brief

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Survey Compares Adult and Pediatric Chronic Condition Management in Primary Care Practices

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Abstract

Care management is a highly valued aspect of care for patients with chronic conditions, and its absence can create or exacerbate health problems. Though most commonly associated with adults, chronic care management is becoming increasingly important in pediatric practices as the number of children with complex chronic conditions continues to grow.

Pediatric practices traditionally have been designed and staffed to provide acute and preventive care. Adult internal medicine practices see a preponderance of patients with chronic health problems, and presumably have designed their practices to serve this population well. This study compared data from a survey of primary care pediatricians and adult internists who care for patients with multiple chronic conditions. The data cover access to care, care coordination, health information technology, quality improvement, and satisfaction with patient care in their practices.

Compared with pediatric patients, internists' patients had more chronic illnesses and were much more likely to require home and palliative care; more internists than pediatricians reported that their practices were prepared to manage such patients. Pediatric practices reported greater ability to offer same-day appointments, but neither pediatric nor adult practices reported differences in offering after-hours care or using email to communicate with their patients. Both types of practitioners reported frequently coordinating care with social services, but internists had more patients requiring this service and reported being better prepared to provide it. Data from both types of practices indicated substantial room for improvement in their ability to provide high quality, comprehensive chronic care management of medical conditions.

Introduction

The different diseases and disorders that make up pediatric and adult-onset chronic conditions, and the contrast in their prevalence, have been previously noted.¹ Chronic health problems are highly prevalent among older adults² and rates of chronic conditions increase with age.

The proportion of children with chronic physical, developmental, behavioral or emotional conditions ranges between 15-20 percent nationally, depending on various demographic indicators.³ Consequently, caring for children and adolescents with chronic health

problems is an important part of pediatric primary care practice.

The differences between children and adults, especially the central role parents play in the management of children's chronic medical care,

Understanding similarities and differences between these specialties could be useful in identifying ways to improve chronic care and in preparing patients and practices for the transition from pediatric to adult care.

might lead to differences in the capacity and operation of pediatric and internal medicine practices. Understanding the similarities and differences between these two specialties can be useful in identifying ways to

improve care of chronic conditions.

Anticipating differences is important in preparing patients and practices for the transition from pediatric to adult care. The prevalence of adult chronic conditions suggests that internal medicine practices might be better equipped to provide chronic medical care.

Access to data from an international study of management of chronic conditions in primary care practices, including US practices, provided the opportunity to examine whether pediatricians and internists manage their chronically ill patients differently.⁴

Method

The 2015 Commonwealth Fund International Health Policy Survey of Primary Care Physicians was administered online and through mail surveys to a random sample of internists and pediatricians. Samples were drawn from government and private lists of primary care

physicians. Details of the study methods have been previously published.⁴ The US sample included 288 internists and 237 pediatricians. The remainder of the US sample (N=1001) were family medicine physicians and general practitioners who were excluded from the present study because they would be similarly equipped to manage chronically ill patients regardless of age. The response rate in the US was 31 percent. Although non-respondents might differ from respondents, data were weighted to account for differential responses as well as geographic and demographic parameters. The final weighted analytic sample included 367 internists and 214 pediatricians who saw patients with multiple chronic conditions. The survey was based on the views and experiences reported by physicians. The results have not been validated by independently obtained data.

To the extent possible, survey items were aggregated within categories of chronic care activities found in descriptions of chronic care models^{5,6,7,8} and standards for systems of care for children with special health care needs.⁹ The significance of differences between responses by internists and pediatricians was calculated using Pearson Chi Square tests.

Results

In the following comparisons, data from pediatric practices always precede data from internal medicine practices (Pediatric vs Internal Medicine) regardless of the direction of difference. Many practice characteristics and behaviors differ significantly between pediatrics and internal medicine (Table 1). However, some practice behaviors did not differ (Table 2)

Table 1: Practice Characteristics and Behaviors that Differ Between Pediatrics and Internal Medicine

Category	Practice Indicator	Pediatrics (%)	Internal Medicine (%)
Patient Population	Often sees patients with multiple chronic problems	46.0	98.4***
	Patients in need of long-term home care	8.5	48.2***
	Well-prepared to manage patients in need of long-term home care	17.6	55.0***
	Patients in need of palliative care	6.1	32.4***
	Well-prepared to manage care of patients in need of palliative care	8.1	52.6***
	Major problem getting patients medication or treatments because of coverage restrictions	41.0	62.0***
Access to Care	Well-prepared to care for patients with multiple chronic conditions	57.5	87.1***
	Provide same or next-day appointments for almost all patients	71.8	46.8***
	Often long waiting times to see a specialist	40.1	28.6***
	Patients often need to get specialized diagnostic tests	19.8	27.4*
	At least 80% of physician time spent on face-to-face contact	61.3	48.2***
Care Coordination	Often or sometimes having patients in need of social services	58.4	83.0***
	Well prepared to help patients in need of social services	24.6	36.7**
	Coordinating with social services was easy or very easy	31.3	39.9*
	Patients experienced problems because care was not well coordinated	34.1	45.7**
	Frequently contacts patients between visits to monitor conditions	49.3	38.5**
	Frequently coordinated follow-up care for patients discharged from hospital	51.9	66.7**
Quality Improvement	Received, reviewed data on preventive care	51.9	61.3*
	Received, reviewed data on clinical outcomes	43.4	59.2***
Satisfaction with patient time	Amount of medical care too much or much too much	29.3	44.3**

*** < .001; ** < .01; * < .0

Table 2: Practice Behaviors that Do Not Differ Between Pediatrics and Internal Medicine

Category	Practice Indicator	Pediatrics (%)	Internal Medicine (%)
Patient Population	Often see of patients with severe mental illness	24.9	26.7
	Somewhat or well-prepared to care for patients with severe mental illness	56.6	55.7
	Routinely communicate with home care providers	48.1	58.2
Access to Care	Available after-hours care	44.1	40.1
	Communicate with patients via email	52.9	57.8
Care Coordination	Coordinate frequently with social services	40.2	48.5
	Easy or very easy communicating with social services	31.3	39.9
	Well prepared to meet patients' need for language translation	39.2	38.5
	Routinely provide written instructions for self-management support	52.3	49.7
	Routinely record self-management goals	39.3	37.1
Health Information Technology	Use of electronic medical records	84.4	84.1
	Meaningful use of electronic medical records:		
	• Exchange clinical summaries	44.1	45.8
	• Generate registries by diagnosis	80.1	75.1
	• List patients due for care	65.9	67.2
• Comprehensive medication list	70.5	74.9	
Quality Improvement	Receipt of financial incentives tied to patient satisfaction ratings	23.1	29.1

Patient Population

Internal medicine practices were significantly more likely to see patients with multiple chronic problems often (45% vs 98%; $p < .001$). They were much more likely to often have patients in need of long-term home care (9% vs 48%; $p < .001$) and report higher rates of being well-prepared to manage such patients (18% vs 55%; $p < .001$). They also reported significantly higher rates of often and sometimes having patients in need of palliative care (17% vs 84%; $p < .001$) and of being well-prepared to manage the care of patients in need of palliative care (8% vs

53%; $p < .001$). Internal medicine practices experienced greater difficulty getting patients needed medication or treatments because of coverage restrictions (41% vs 62%; $p < .001$). There were no significant differences between the practices routinely communicating with home care providers (48% vs 58%). Both reported similar rates of often seeing patients with severe mental health problems (25% vs 27%), and both reported similar but low rates of being somewhat or well-prepared to care for those patients (57% vs 56%).

Access to Care

Internists reported higher rates of being well-prepared to care for patients with multiple chronic conditions (58% vs 87%; $p < .001$), while pediatricians reported a significantly greater ability to provide same or next-day appointments for almost all their patients (72% vs 47%; $p < .001$). The specialties differed little in terms of having an arrangement for after-hours care (44% vs 40%) or offering email communication with patients about medical concerns (53% vs 58%). There were expected differences in the frequency with which patients required long-term home care and palliative care services, with internists experiencing this need about five times more often than pediatricians. Internists' patients less often experienced long wait times to see a specialist (40% vs 29%; $p < .001$) but had slightly more difficulty getting specialized diagnostic tests (20% vs 27%; $p < .05$). A higher percentage of pediatricians reported spending 80% or more of their time on face-to-face contact with their patients compared with internists (61% vs 48%; $p < .001$).

Care Coordination

Less than half of both types of practices reported frequently coordinating care with social services or other community providers (40% vs 49%), though internal medicine practices reported significantly higher rates of often or sometimes having patients in need of social services (58% vs 83%; $p < .001$) and being well prepared to help patients in need of those services (25% vs 37%; $p < .01$). The specialties differed in reporting that coordinating with social services was easy or very easy (31% vs 40%; $p < .05$). Both types of practices reported

similar rates of providing patients with chronic conditions with written instructions for self-management (52% vs 50%) and for recording self-management goals in patients' medical records (39% vs 37%). Pediatricians' said their patients reported fewer problems due to a lack of care coordination than did internists' patients (34% vs 46%; $p < .01$).

Pediatric and internal medicine practices did not report significant differences in having office personnel monitor and manage patients with chronic conditions who need regular follow up (62% vs 70%), but among both types of practices, those that were part of a larger, integrated provider system, e.g., Kaiser Permanente, Mayo Clinic, etc., were one-and-a-half times more likely to use office personnel to monitor and manage care of patients needing regular follow-up than non-system practices (82% vs 60%; $p < .01$). Pediatric practices more frequently contact patients between visits to monitor their conditions (49% vs 39%; $p < .01$). More internal medicine practices reported frequently coordinating follow-up care for patients being discharged from hospital (52% vs 67%; $p < .01$). Both practices had equal proportions reporting they were well-prepared to meet patients' need for language translation (39% both groups).

Health Information Technology

There were no significant differences reported between pediatric and internal medicine practices regarding the availability of electronic medical records (EMRs) or meaningful use of that technology. About 84% of both practices reported using electronic medical records, but only about half can exchange information with

physicians outside of their practice (44% vs 46%). At least three-quarters can produce a computerized registry of patients by diagnoses (80% vs 75%); two-thirds can identify patients who are due or overdue for preventive care (66% vs 67%). About three-quarters can list all medications taken by an individual patient (71% vs 75%), and 76% provide a clinical summary of each visit to give to patients.

Quality Improvement

Both types of practices were equally likely to receive and review survey data on patient satisfaction (66%), though internal medicine practices were more likely to receive data on provision of recommended preventive care (52% vs 61%; $p < .05$). Internists were more likely than pediatricians to receive and review data on clinical outcomes of their patients (43% vs 59%; $p < .001$). A similar proportion of both types of specialists received extra financial support or incentives for high patient satisfaction ratings (23% vs 29%).

Time for Patient Care

Only 9% of both pediatric and internal medicine practitioners reported being very satisfied and 47% were satisfied with the time available to spend with patients. Forty-four percent of internists and 29% of pediatricians reported that the amount of medical care their patients received from them and other providers was too much or much too much ($p < .01$).

Discussion

The patient populations seen in internal medicine and pediatric practices in the US differ in terms of their requirements for management of chronic conditions. More than half of US adults over 20 years of age have at least one chronic condition, and many have multiple conditions. The majority of conditions are among six to eight diseases that internists are trained to manage.¹⁰ Chronic medical care for adults constitutes 33 to 56 percent of ambulatory care visits, with higher rates at older ages.¹¹ Pediatric chronic medical conditions are much more varied and less prevalent. Broad, multi-dimensional definitions suggest that up to about 20 percent of children and adolescents have a chronic condition, but when chronic intermittent conditions (e.g., allergies) that don't limit daily functioning are excluded, prevalence is about 4 to 7 percent,^{12, 13} and children with multiple chronic conditions comprise less than 1 percent of all children.¹⁴ Consequently, compared to internal medicine practices, pediatric practices contain fewer chronic and complex patients and fewer patients needing home care, palliative care or medications or treatments that are difficult to obtain. However, children with chronic conditions are relatively high utilizers of care, so they constitute a disproportionate amount of pediatric practice visits, reported in two studies as 21 percent¹⁵ and 27 percent.¹⁶ Most of those visits were made by patients with high prevalence and low severity conditions, e.g., asthma, obesity.

Overall, this study found few significant differences between internal medicine and pediatric practices' management of patients with chronic health conditions, and both have

considerable room for improvement in their care of that population. Opportunities for improvements were especially notable in assuring ready access to timely and appropriate care, coordinating care, and organizing resources and practices so that personnel and time are available to provide good quality care. In previous studies, pediatricians have similarly reported that lack of adequate time for patient care, administrative demands, and too few staff are practice barriers. Few studies have identified inadequate financial reimbursement as a priority barrier affecting care, though payment rates have been shown to affect access for Medicaid patients.^{17, 18}

Accessing subspecialty care was a shared problem, somewhat greater for providers of pediatric care. Previous surveys have identified a long list of pediatric subspecialties for which referrals are difficult to arrange.^{15, 19, 20}

Both specialties, but especially internal medicine, reported that their patients frequently needed social and other community-based services, but only about one-quarter of pediatricians and about one-third of internists reported being particularly well-prepared to coordinate that care. Previous studies of pediatricians have reported substantial lack of knowledge about available services²¹ and difficulty accessing outside case managers, home nursing care, and support services for families.²²

Although internal medicine practices reported higher rates of patients needing social and other community services and appeared to be better prepared to coordinate with those service providers, they were no more likely to provide

that coordination than were pediatric practices. Pediatric practices reported more frequent contacts with patients between visits.

Care coordination is an important component of the care of patients with chronic conditions and its absence can create or exacerbate health problems.²³ Among those caring for children with complex needs, having to coordinate with many subspecialists can be a barrier to meeting children's needs.^{21, 24} Pediatric and internal medicine practices were equally likely to monitor patients with chronic conditions, but those practices that were part of organized health care systems were significantly more likely to provide that service than those that were not part of an organized system. Larger systems may be better organized and staffed to provide such services.

Neither specialties' physicians were very satisfied with the time they have available to spend with their patients (9%), though 47% were satisfied. Pediatricians reported spending slightly more time face-to-face with their patients, though this study did not include information on usual visit length. A previous study reported that only 46% of primary care pediatricians strongly agreed that they were satisfied with the care they could deliver to most of the children with special health care needs in their practice.¹⁷ A substantial portion of internists and somewhat fewer pediatricians reported that their patients received too much medical care, an opinion substantiated by other research.²⁵

The use of health information technology was equivalent between both types of specialty practices. Most practices reported using

electronic medical records and most could produce patient registries by diagnosis, identify patients due for care, and provide clinical summaries after each visit. While both presumably could provide written instructions for self-management, only about half of the practices did. This is concerning, as providing this type of information is critical to chronic care management.

Encouragement to improve the quality of chronic care often takes the form of data from health insurers who provide information on patient satisfaction, provision of recommended preventive services, and clinical outcomes, and who may tie financial incentives to good performance on these measures. Internal medicine practices are more likely than pediatric practices to receive performance data. The aging of pediatric patients with chronic medical conditions has led to much discussion about how to facilitate the transition from pediatric to adult care. Internists may lack familiarity with many pediatric chronic conditions and will need consultation and guidance in their management. In addition, some have described pediatric care as more nurturing.

Conclusion

Despite some statistically significant differences between internal medicine and pediatric practices in the care of patients with chronic health problems, clinically meaningful differences, except for palliative and long-term home care, are overshadowed by the need for both specialties to improve their management of these patients. Though there has been substantial discussion about facilitating the transition from pediatric to adult care, the data

from this study suggest that the differences in care, at least in terms of the capacity to manage chronic illness, are not great.

For pediatricians, the increasing prevalence of chronic illness among children demands enhancement of the capacity of pediatricians and pediatric practices to better manage their care. Pediatric training programs are required to include exposure to the longitudinal management of children with special needs and chronic conditions,²⁶ but that exposure is effectively cross-sectional and brief relative to the life of a child.

In terms of practice improvements and redesign, several items should be high on the change agenda: better procedures for after-hours care; increasing subspecialty access; improving care coordination among physicians and with various community service providers; supporting self-management by patients and their family members; and advocating for resources to appropriately staff practices to meet the needs of chronically ill patients.

The increasing prevalence of chronic illness among adults suggests that pediatrics may not be doing all it could to adopt a life course perspective and prevent adult morbidity. The need for both specialties, as well as other health care providers, to address the personal and social factors contributing to the frequency and cost of chronic illness remains an important shortcoming in the US health care system.

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