

The Future of Pediatrics: Redefining Chronic Care

by Edward L. Schor, MD

Introduction

The term “chronic care” typically is applied to health care services provided to patients with chronic medical conditions. However, if *chronic care* is used to describe “a planned, longitudinal, continuous and coordinated, forward-looking approach to providing health care and promoting health and well-being” it can equally well be applied to preventive care, for at its best, preventive care addresses health beliefs and behaviors with lifelong consequences.¹ Evidence suggests that for neither chronic medical care nor preventive care is the health care system achieving desired outcomes.^{2,3} These failures may be ascribed in part to the system itself – its history, design and financial incentives.^{4,5,6,7,8}

History

For most of its history, health care focused on treating acute conditions, primarily trauma and infectious diseases. These were the commonly observed conditions in eras in which there was relatively limited life expectancy and few therapeutic options available. Chronic illness and health-promoting opportunities have gained substantial attention relatively recently, as has the contribution of psychosocial factors to their etiology.⁹

Design

In pediatrics, most practices are organized and designed for acute care although *chronic care* of children is increasingly important in terms of the prevalence and disproportionate cost of chronic conditions. In part this reflects historical staffing models; as recently as two decades ago most medical practices, including pediatric practices, were small, solo or two-physician practices.¹⁰

Chronic care means planned care; care that anticipates patients' needs as their health changes, as their self-management competencies change, and as they transition across time, settings and providers.

Today, the average pediatric office visit, of which roughly half are for acute care, lasts about 16 minutes. Pediatric preventive care visits constitute about 34% of primary care visits.¹¹ Those, too, conform to the acute care model by their adherence to a periodicity schedule, yet they are intended to deal with long-term health behaviors and persistent social environments. These visits contain little repetition or cumulation of content. Even where guidelines offer some consistent categories of content, the length of visits, about 18-19 minutes, and the relatively poor attendance for preventive care preclude meaningful discussion of the ever-expanding number of recommended individual topics.¹² The larger trend toward diminishing continuity of provider no doubt also interferes with *chronic care*.

Financial Incentives

Current practice has been strongly shaped by past fee-for-service billing and payment policies that typically do not adequately reimburse for the comprehensive approach that *chronic care* requires. Fee-for-service payment rewards volume and thus brief face-to-face encounters. Volume-based payment remains common, even among employed physicians who can face productivity quotas, and is designed to reward episodic encounters or visits and procedure-based care. Reimbursement is based on submission of billing codes for individual services, the origin of which in 1966 emphasized surgical procedures, and which continue to undervalue cognitive and patient-centered services, at least in the eyes of primary care providers. These services are the backbone of *chronic care*.

Drivers of Change

There are two major drivers of change supporting enhanced capacity to provide care chronically. In the future, pediatrics will have to effectively respond to the increasing prevalence of chronic conditions, already accounting for about one-fifth of pediatric office visits and more than 40 percent of medical care costs (excluding dental costs).^{13, 14} Advances in medical care demonstrate that much can be done to extend the lives of children with chronic conditions and to improve their quality of life and that of their families.

Pediatrics also will become the profession most actively advocating for and practicing life course health promotion. Currently, pediatric health supervision, with its inherently long-term goals, is not meeting its potential. Even prior to

the impact of individual genetic profiles on prevention, developmental delays continue to be diagnosed late; immunizations remain far from universal; obesity continues to be a major health problem; social factors with the potential to determine future health are not routinely explored; inappropriate and sometimes abusive childrearing continues; rates of behavioral/emotional disorders are disturbingly high; and adequate physical activity remains the exception. As challenging as these problems may be, none can be successfully addressed with isolated or brief interventions – they also require *chronic care*.

Changing Practice

Improving the provision of *chronic care* will require substantial changes within practices. Whether *chronic care* is for managing chronic illness or preventing illness and promoting lifelong health, greater emphasis will need to be placed on shared care planning and decision-making based on patients' and families' goals and priorities; patient education and coaching so they are informed, motivated and prepared to actively participate in their own care; peer and other forms of social support; frequent multi-modal communication; monitoring and reinforcing positive health behaviors; and coordinating care.

The skills and time involved in such a re-orientation will require embracing medical homes and the adoption of team-based, family-centered care.¹⁵ There are indications that the capacity to provide such care is increasing as the median pediatric practice is growing larger, and the proportion of physicians who own their own practices has been declining steadily as they are increasingly employed by group practices or

by hospitals.^{16, 17} The increasing embrace of the medical home model, with its emphasis on comprehensive team-based care, coordination and continuity offers a practice model better suited to *chronic care*.

Changing Financing

New employment models and new practice models often adopt new models of reimbursement that more easily support *chronic care*. Fee-for-quality strategies and new population health management models, such as accountable care organizations, tie financial rewards to quality benchmarks and achieved savings; by offering more comprehensive and coordinated care they are better positioned to provide *chronic care*. Some alternative payment models use risk-adjusted capitation, which has the potential to better support those services of special importance to the chronically ill. Shifting to a payment system based on value rather than fee-for-service will support an emphasis on disease prevention and effective management of chronic conditions. Single-payer models provide incentives for long-term investments in health promotion.

Conclusion

Chronic care means planned care; care that anticipates patients' needs as their health changes, as their self-management competencies change, and as they transition across time, settings and providers. Currently, US health care policies and systems fall short in providing the resources and environments necessary for health care to evolve to meet *chronic care* needs. Models of risk-adjusted payment should be adopted that include incentives for quality, services provided by non-clinician team members, and achievement of population health.¹⁸ Ultimately, pediatrics and other medical specialties must go beyond focusing on achieving optimal current health and adopt a more visionary mission of providing *chronic care* that creates a base of health and health behaviors that, if maintained and augmented, would allow individuals to reach old age with fewer health impairments and higher levels of functional capacity.

References

1. Glasgow RE, Orleans CT, Wagner Eh, Curry SJ, Solberg LI. Does the chronic care model serve also as a template for improving prevention? *The Milbank Quarterly*. 2001;79(4):579-612.
2. Mangione-Smith R, Decristofaro AH, Setodji CM, Dessey J, Klein DJ, Adams JL, Schuster MA, McGlynn EA. The quality of ambulatory care delivered to children in the United States. *N Engl J Med*. 2007;357(15):1515-1523.
3. Chien AT, Toomey SL, Kuo DZ, Van Cleave J, Houtrow AJ, Okumura MJ, Westfall MY, Petty CR, Quinn JA, Kuhlthau KA, Schuster MA. Care quality and spending among commercially insured children with disabilities. *Academic Pediatrics*. (in press) Online, June, 2018; DOI: <https://doi.org/10.1016/j.acap.2018.06.004> .
4. Stein REK. Challenges in long-term health care for children. *Ambulatory Pediatrics*. 2001;1(5):280-288.

5. Adams JS, Woods ER. Redesign of chronic illness care in children and adolescents: evidence for the chronic care model. *Curr Opin Pediatr*. 2016;28(4):428-433.
6. Coker TR, DuPlessis HM, Davoudpour R, Moreno C, Rodriguez MA, Chung PJ. Well-child care practice redesign for low-income children: the perspectives of health plans, medical groups, and state agencies. *Academic Pediatrics*. 2012;12(1):43-52.
7. Coker TR, Alexander GC, Casalino L, Lantos J. General pediatricians' views on allocating more time in primary care practices to children with special health care needs: results from a national survey. California Center for Population Research. December 2007. Available at: <http://escholarship.org/uc/item/6678b32f>.
8. Coker T, Casalino LP, Alexander GC, Lantos J. Should our well-child care system be redesigned? A national survey of pediatricians. *Pediatrics*. 2006;118(5):1852.
9. Halfon, N., Larson, K., Lu, M. et al. Lifecourse Health Development: Past, Present and Future *Matern Child Health J* (2014) 18 (2): 344-365. <https://doi.org/10.1007/s10995-013-1346-2>.
10. Brotherton SE, Tang SS, O'Connor KG. Trends in practice characteristics: analysis of 19 periodic surveys (1987-1992) of fellows of the American Academy of Pediatrics. *Pediatrics*. 1997;100(1):8-18.
11. NAMCS: 2015 State and National Summary Tables. Table 12. https://www.cdc.gov/nchs/data/ahcd/namcs_summary/2015_namcs_web_tables.pdf. Accessed July 9, 2018.
12. Wolf ER, Hochheimer CJ, Sabo RT, DeVoe J, Wasserman R, Geissal E, Opel DJ, Warren N, Puro J, O'Neil J, Pecsok J, Krist AH. Gaps in well-child care attendance among primary care clinics serving low-income families. *Pediatrics*. 2018;142(5):1-8.
13. Gupta VB, O'Connor KG, Quezada-Gomes C. Care coordination services in pediatric practices. *Pediatrics*. 2004; 113(5):1517-1521.
14. Newacheck PW, Kim SE. A national profile of health care utilization and expenditures for children with special health care needs. *Archives of Pediatric and Adolescent Medicine*. 2005; 159:10-17
15. Katkin JP, Kressly SJ, Edwards AR, et al. Task Force on Pediatric Practice Change. Guiding Principles for Team-Based Pediatric Care. *Pediatrics*. 2017;140(2):20171489.
16. Median practice size, patient caseloads highlighted in AAP report. *Aapnews*. 2009; 30(6)
17. 2016 Survey of American's physicians: practice patterns & perspectives. The Physicians Foundation. 2016 Available at www.physiciansfoundation.org.
18. Bodenheimer T, Chen E, Bennet HD. Confronting the growing burden of chronic disease: Can the U.S. Health care workforce do the job? *Health Affairs*. 2009;28(1):64-74.

ABOUT THE FOUNDATION: The Lucile Packard Foundation for Children's Health is a public charity, founded in 1997. Its mission is to elevate the priority of children's health, and to increase the quality and accessibility of children's health care through leadership and direct investment. Through its Program for Children with Special Health Care Needs, the Foundation supports development of a high-quality health care system that results in better health outcomes for children and enhanced quality of life for families.

The Foundation encourages dissemination of its publications. A complete list of publications is available at <http://www.lpfch.org/publications>

CONTACT: The Lucile Packard Foundation for Children's Health, 400 Hamilton Avenue, Suite 340, Palo Alto, CA 94301 cshcn@lpfch.org (650) 497-8365