



The CAHPS Ambulatory Care Improvement Guide

Practical Strategies for Improving Patient Experience

Section 6: Strategies for Improving Patient Experience with Ambulatory Care

6.F. On-Demand Advice, Diagnosis, and Treatment for Minor Health Conditions

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6.F. ON-DEMAND ADVICE, DIAGNOSIS, AND TREATMENT FOR MINOR HEALTH CONDITIONS

6.F.1. The Problem

Individuals with non-urgent health problems typically have to schedule an in-person visit with a primary care physician (PCP) and then wait a day or more before traveling to an office for that appointment, often taking time away from work or other activities. Those who do not want to wait (or who experience problems during evening or overnight hours when physician offices are closed) often go to urgent care centers or emergency departments (EDs) in order to be seen right away.

Delays in waiting for this type of appointment will likely get worse in the future as the demand for office visits increases thanks to a combination of population growth, an aging population, and an influx of newly insured individuals. Based on one analysis of these factors, PCP visits are expected to rise from 462 million visits in 2008 to 565 million visits in 2025. This demand for care would require 52,000 more full-time equivalent PCPs by 2025 – an increase of 3 percent over the provider workforce available in 2010.¹

Some of the patients who are visiting PCPs, urgent care centers, and EDs are dealing with relatively minor conditions that do not require an in-person visit or the services of a physician. Others are seeking advice that may or may not require a physician (e.g., digestion of a possibly toxic substance, high fever, medication queries). Many of these patients—particularly those used to receiving “on-demand” service in other sectors of the economy—would prefer to receive immediate or near-immediate advice and care. The rapid increase in the number of walk-in “retail” clinics operated by Walgreens, CVS, and others is indicative of the growing demand for immediate access to care for minor health problems. And some patients—particularly those familiar and comfortable with various information and communication technologies—do not mind receiving care virtually (e.g., by telephone, online, via video), which eliminates the need to schedule, wait for, and travel to an in-person appointment.

Health plans have a vested interest in helping members gain access to this type of immediate advice and care. Not only can it help to avoid unnecessary in-person visits to PCP offices, urgent care centers, and EDs, but it also has the potential to improve members’ experiences with care, as reflected in the CAHPS Health Plan Survey’s access measure.

¹ Peterson SM, Liaw WR, Phillips RL, et al. Projecting US primary care physician workforce needs: 2010-2025. *Ann Fam Med* 2012;10(6):503-9.

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Opportunity To Improve Access to Immediate Care

Both the Adult and Child versions of the survey include the following question:

“In the last 6 (*or 12*) months, did you (*or your child*) have an illness, injury, or condition that needed care right away in a clinic, emergency room, or doctor’s office?”

If the response is YES, then the next question asks:

“In the last 6 months, when you needed care right away, how often did you get care as soon as you needed?”

As shown in the chart below, results from the CAHPS Health Plan Survey Database 2015² suggest that health plans can do a better job in providing access to immediate care when needed, particularly for Medicaid beneficiaries.

Table 6F-1. Results from the CAHPS Health Plan Survey Database 2015

	Survey item: Got urgent care for illness, injury or condition as soon as needed				Responses in 2015 Database (N)
	Response Frequency				
	Never	Sometimes	Usually	Always	
Medicare Managed Care Health Plan Survey 4.0	2%	9%	21%	68%	50,687
Adult Medicaid Survey 5.0	3%	14%	21%	62%	24,151
Child Medicaid Survey 5.0	1%	9%	13%	77%	31,321

Analyses of survey results also indicate that, while the majority of adults are usually or always able to obtain urgent medical care when needed, the experience with timely access to care varies by race/ethnicity, age, income level, and health insurance status. For example, in 2010, only 71.7 percent of adults identifying as non-Hispanic other/multiple races indicated that they are usually or always able to get needed medical

² The results for the Medicaid sector were obtained from data collected by State Medicaid agencies and individual health plans from October 2014 through June 2015 submitted directly to the CAHPS Database. The 2015 database consists of submissions from 36 states, of which a total of 16 Medicaid State Agencies submitted data. The CAHPS Medicare Managed Care results were obtained from the Centers for Medicare & Medicaid Services (CMS) for survey participants who were enrolled in a managed care health plan.

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care, compared to 84.0 percent for White non-Hispanics. The highest levels of access were reported by people age 65 and older and those in high-income families.³

6.F.2. The Intervention

Health plans can put in place a variety of programs designed to provide immediate, on-demand access to information, advice, diagnosis, and treatment related to non-urgent health conditions and problems.

Traditional 24-Hour Nurse Hotline (or Advice Line)

Most health plans offer a toll-free phone line available around-the-clock staffed by registered nurses (RNs) who assist members who have questions or need advice related to a health condition or problem. In addition to a regular phone line, plans also provide a separate number compatible with devices that enable deaf or mute individuals to communicate by phone.

Members can call the advice line any time they or a family member are having symptoms of an illness or medical problem, or they can call with general health questions. Using evidence-based algorithms or guidelines,⁴ the RN quickly and accurately triages calls and directs the patient to the information he or she needs, which could include education on how to care for and manage the condition at home, a referral for an in-person physician visit, or immediate referral to an urgent care center or ED. (For example, any patient experiencing chest pain will be told to call 911 or go immediately to the ED.) The protocols embedded in guidelines and algorithms are typically conservative, guiding the patient to the appropriate level of care for their needs.

During non-urgent situations, the RN typically offers care management advice and health education related to the patient's health problem(s), with the goal of increasing the patient's confidence in managing his or her health conditions. For example, the RN can help in interpreting test results and in understanding and complying with the prescribed medication regimen and diet. The RN can also help members plan questions in preparation for an upcoming doctor's visit, and can serve as an additional channel for identifying, referring, and enrolling patients into the health plan's disease management, pregnancy, or similar programs. Lastly, nurse advice lines can assist members in finding in-network health care practitioners and facilities.

Many health plans have had 24-hour nurse advice lines in place for years. Plan leaders should routinely monitor the performance of these plans and, as necessary, make changes to improve them. For example, leaders of Molina Healthcare, a Medicaid managed care organization that covers 1.6 million medically underserved individuals in

³ Carroll W, Rhoades J. *Access and Experiences Regarding Health Care: Estimates for the U.S. Civilian Noninstitutionalized Population Age 18 and Older, 2010*. Statistical Brief #406. May 2013. Agency for Healthcare Research and Quality, Rockville, MD.

⁴ Silverstein S, Toomey H. How Nurse Advice Lines Can Help Hospitals and Providers Manage Population Health. *Becker's Hospital Review*. December 13, 2012.

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10 states, reviewed usage patterns for its nurse advice line and found that relatively few Spanish-speaking members used the service. In response, Molina created a separate line known as TeleSalud to serve members who speak Spanish. Bilingual nurses (Spanish and English) staff the line, which has been marketed aggressively to Spanish-speaking members.⁵ Learn more from AHRQ about [TeleSalud](#).

Web- or Telemedicine-Based Diagnosis and Treatment of Minor Conditions

Some health plans are taking the concept of an “advice” line further by setting up programs explicitly designed to provide diagnosis and treatment of a select group of minor health conditions via virtual technologies, without the need for an in-person visit. In most cases, these services make use of a higher-level practitioner, typically a nurse practitioner (NP), physician assistant (PA), or physician.

For example, HealthPartners, a large integrated health plan and provider system serving residents of Minnesota, Wisconsin, and Michigan, offers an online “clinic” that diagnoses and treats roughly 40 minor health problems that can be safely handled without a face-to-face visit (e.g., pink eye, sinus infections). Members visit a Web site ([virtuwell.com](#)) where they interact with an expert system driven by sophisticated artificial intelligence to complete a thorough medical history of their symptoms, conditions, allergies, and medications. The system incorporates hundreds of built-in safety risk factors that automatically trigger a referral to an in-person visit whenever the patient-entered information suggests that one is required. Otherwise, a licensed NP or PA reviews the information and, in most cases, develops a protocol-based treatment plan, including a prescription if needed. Members receive an email or text notifying them that their treatment plan is ready, typically within 30 minutes of their having submitted the information. Occasionally, the NP or PA may feel that an in-person visit is warranted after his or her review, in which case a referral for a visit is provided. If desired, the member can ask to speak to the treating practitioner by phone.

The virtuwell service is covered by most insurers—including Medicare, which authorized coverage in 2011, making it the first online care service to receive such authorization. For those without insurance, a visit costs \$40, including any follow-up calls.⁶ Learn more from AHRQ about [virtuwell](#).

In addition to online offerings, health plans can offer similar kinds of services via real-time video conferencing, which offers the advantage of allowing a practitioner to visually see and talk to the patient, including visual examination of areas of concern. For example, Anthem Blue Cross Blue Shield offers LiveHealth Online, which allows members to see a board-certified doctor within 10 minutes via a smart phone, tablet or

⁵ AHRQ Health Care Innovations Exchange. 24-Hour, Bilingual Nurse Line Provides Advice and Interpreter Services for Plan Members, Leading to Wiser Decisions and Cost Savings. Agency for Healthcare Research and Quality. July 2014.

⁶ AHRQ Health Care Innovations Exchange. Online Clinic Enhances Access to and Reduces Costs of Care for Minor Health Problems, Generates Significant Time Savings and High Satisfaction Among Patients. Agency for Healthcare Research and Quality. November 2013.

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webcam-enabled computer. The physician can offer medical advice and diagnose certain minor health conditions (e.g., flu, cold, sinus infection, pink eye), including having a prescription sent to the member's pharmacy of choice if necessary.

6.F.3. Benefits

Both traditional nurse advice telephone lines and newer virtual services that diagnose and treat minor health conditions have been shown to provide benefits for both the plans that sponsor them and their members. These benefits include quicker access to care, cost savings (by getting patients to the right—often lower—level of care), better clinical outcomes, and high levels of member/patient satisfaction. For example:

- A 24-hour nurse hotline specifically designed for patients with chronic obstructive pulmonary disease was found to reduce hospital visits without causing any safety risks to patients.⁷
- A study evaluating over 20,000 calls to an advice line from individuals with symptoms suggesting the potential for appendicitis found that callers got care much more quickly than they would have had they not called the advice line, potentially reducing the morbidity associated with appendicitis.⁸
- A study of a nurse advice line in rural New Mexico found that it redirected callers away from unnecessary, expensive ED and urgent care visits to other less costly venues.⁹
- A survey of 278 patients who used Denver Health's nurse advice line found that over two-thirds of callers (68%) took actions that differed from their original plan, with many (46%) choosing to receive care in a less intense setting.¹⁰
- A study of 132,509 advice line callers found that 56% received advice that differed from their original plan of action, and that 57% complied with the nurse's advice. Compliant callers had \$328 lower average healthcare expenditures during the post-call observation period than did non-compliant callers.¹¹
- Since the launch of TeleSalud at Molina Healthcare, calls from Spanish-speaking members have increased significantly, leading to fewer ED visits and significant cost savings.¹²

⁷ Roberts MM, Leeder SR, Robinson TD. Nurse-led 24-h hotline for patients with chronic obstructive pulmonary disease reduces hospital use and is safe. *Intern Med J* 2008;38:334-40.

⁸ North F, Odunukan O, Varkey P. The value of telephone triage for patients with appendicitis. *J Telemed Telecare* 2011;17(8):417-20.

⁹ Bissell E, Fiorenzio C, Johnson A, et al. Effectiveness of a 24/7 nurse advice line in reducing non-emergency visits to the emergency room in rural New Mexico. *J Investig Med* 2010;58(1):126.

¹⁰ Bogdan GM, Green JL, Swanson D, et al. Evaluating patient compliance with nurse advice line recommendations and the impact on healthcare costs. *Am J Manag Care* 2004 Aug;10(8):534-42.

¹¹ Navratil-Strawn JL, Ozminkowski RJ, Hartley SK. An economic analysis of a nurse-led telephone triage service. *J Telemed Telecare* 2014 Sep;20(6):330-8.

¹² AHRQ Health Care Innovations Exchange. 24-Hour, Bilingual Nurse Line Provides Advice and Interpreter Services for Plan Members, Leading to Wiser Decisions and Cost Savings. Agency for Healthcare Research and Quality. July 2014.

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- During its first 2 years of operation, HealthPartners' virtuwell online clinic safely diagnosed and treated more than 40 percent of the roughly 96,000 individuals who accessed the system, with the remainder (who had conditions outside the scope of the service) receiving free suggestions for in-person care. Compared with face-to-face visits, virtuwell enhanced access to care, reduced costs, and saved users significant time. Those using the online clinic have reported very high levels of satisfaction, while physicians have generally supported the approach.¹³

6.F.4. Implementation

Health plans can develop and operate their own advice lines and virtual care programs using employed practitioners or contract for such services through vendors. Regardless of the approach taken, the following steps should be considered as ways to avoid or overcome potential implementation-related challenges:

- **Identify and address legal issues:** The provision of virtual care can raise legal issues related to state-specific statutes and regulations. Those offering virtual services must adhere to the statutes and regulations that apply to any provider, including being licensed in all states in which the program operates and adhering to state-specific corporate practice of medicine mandates, Internet prescribing and treatment statutes, scope-of-practice regulations, and physician supervision requirements. For example, some states require a clinician to have an existing face-to-face relationship with a patient before using telemedicine channels with that patient, and others require that a physician supervisor be located in the state.¹⁴
- **Invest in training:** RNs, NPs, PAs, and physicians involved in advice lines and virtual care services must be trained on how to use the systems and interact effectively with patients. With advice lines, for example, callers may not follow the nurse's advice.^{15,16} A meta-analysis of 13 studies during 1990–2010 found that overall compliance with nurse advice averaged only 62%.¹⁷ While more research is needed to clarify the degree to which noncompliance is attributable to poor communication by the nurse, training in active listening and motivational interviewing may help nurses make meaningful connections with callers over the

¹³ AHRQ Health Care Innovations Exchange. Online Clinic Enhances Access to and Reduces Costs of Care for Minor Health Problems, Generates Significant Time Savings and High Satisfaction Among Patients. Agency for Healthcare Research and Quality. November 2013.

¹⁴ AHRQ Health Care Innovations Exchange. Online Clinic Enhances Access to and Reduces Costs of Care for Minor Health Problems, Generates Significant Time Savings and High Satisfaction Among Patients. Agency for Healthcare Research and Quality. November 2013.

¹⁵ De Coster C, Quan H, Elford R, et al. Follow-through after calling a nurse telephone advice line: a population-based study. *Family Pract* 2010;27(3):271-8.

¹⁶ Blank L, Coster J, O'Cathain A, et al. The appropriateness of, and compliance with, telephone triage decisions: a systematic review and narrative synthesis. *J Adv Nurs* 2012;68(12):2610-21.

¹⁷ Purc-Stephenson RJ, Thrasher C. Patient compliance with telephone triage recommendations: a meta-analytic review. *Patient Educ Couns* 2012 May;87(2):135-42.

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phone.^{18,19} Practitioners also need education and training on how to deal with patients who have potential substance abuse and/or mental health issues.

- **Market programs clearly, with a focus on the target audience:** The success of a health plan's advice lines and virtual care offerings is directly related to the marketing and promotion of the services. Mechanisms to market such services include physical materials (e.g., magnets, brochures, posters), mobile applications, direct mail, email, phone messages, and advertising on the plan's website. Materials should be targeted to the plan's member population, taking into consideration demographics and language. Leaders at Molina Healthcare, for example, invested in significant market targeted at Spanish-speaking members during the launch of TeleSalud; these efforts were instrumental in the advice line's attracting calls from Spanish-speaking members.²⁰

Promotional materials for any health plan service should also make it clear what the service specifically does and does not do. For example, members may be tempted to call the 24-hour nurse hotline for non-medical issues regarding coverage, claims, and/or referrals. The hotline's promotional material should clearly state that the nurse advisors cannot assist with these types of non-medical issues.

- **Review underlying guidelines and algorithms regularly:** The evidence-based guidelines and algorithms that underlie any advice line or virtual care system should be reviewed annually by a panel of credentialed physicians to determine if any revisions are needed due to changes in medical knowledge and clinical practice. As part of this effort, clinicians should listen to live or recorded patient-provider interactions to ensure that the algorithm- and/or guideline-based questions are being asked and answered as expected. If members or nurses consistently have difficulty with specific questions, the clinical team should take steps to make the questions clearer and the answers more consistent and reliable. Feedback should be gathered from practitioners and members related to any issues or problems that arise with the advice line and other virtual services.
- **Consider language and culture of target population:** As noted, advice lines and virtual services must cater to the demographics of the population being served. Consequently, as the leaders of Molina Healthcare discovered with their traditional nurse advice line, steps must be taken to ensure that staffing and marketing materials are tailored to the linguistic, racial, ethnic, and cultural profile of the target population.
- **Ensure privacy and security:** Plans must meet all privacy- and security-related requirements and members will need assurances that advice lines and other virtual care programs safeguard their health information.

¹⁸ Williams B, Warren S, McKim R, et al. Caller self-care decisions following teletriage advice. *J Clin Nurs* 2012 Apr;21(7-8):1041-50.

¹⁹ Johnson C, Wilhelmsson S, Börjesson S, Lindberg M. Improvement of communication and interpersonal competence in telenursing--development of a self-assessment tool. *J Clin Nurs* 2015 Jun;24(11-12):1489-501.

²⁰ AHRQ Health Care Innovations Exchange. 24-Hour, Bilingual Nurse Line Provides Advice and Interpreter Services for Plan Members, Leading to Wiser Decisions and Cost Savings. Agency for Healthcare Research and Quality. July 2014.

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- **Minimize stress on practitioners:** Studies suggest that advice line nurses may be prone to significant stress, particularly those who work alone and/or on shifts with a high volume of calls.^{21,22}

Read More About On-Demand Care

- Rise in on-demand health services reflects an appetite for change. Accenture Consulting. <https://www.accenture.com/us-en/insight-highlights-health-rising-investment-healthcare-services>. Accessed 10/20/16.
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²¹ Röing M, Holmström IK. Malpractice claims in Swedish telenursing: lessons learned from interviews with telenurses and managers. *Nurs Res* 2015 Jan-Feb;64(1):35-43.

²² Allan JL, Farquharson B, Johnston DW, et al. Stress in telephone helpline nurses is associated with failures of concentration, attention and memory, and with more conservative referral decisions. *Br J Psychol* 2014 May;105(2):200-13.