



2016

Why do they do that?: Looking beyond typical reasons for non-urgent ED use among Medicaid patients

Cynthia J. Sieck

The Ohio State University, cynthia.sieck@osumc.edu

Jennifer L. Hefner

The Ohio State University, jennifer.hefner@osumc.edu

Randy Wexler

The Ohio State University, randy.wexler@osumc.edu

Chris A. Taylor

The Ohio State University, chris.taylor@osumc.edu

Ann S. McAlearney

The Ohio State University, ann.mcalearney@osumc.edu

Follow this and additional works at: <https://pxjournal.org/journal>

 Part of the [Health and Medical Administration Commons](#), [Health Policy Commons](#), [Health Services Administration Commons](#), and the [Health Services Research Commons](#)

Recommended Citation

Sieck, Cynthia J.; Hefner, Jennifer L.; Wexler, Randy; Taylor, Chris A.; and McAlearney, Ann S. (2016) "Why do they do that?: Looking beyond typical reasons for non-urgent ED use among Medicaid patients," *Patient Experience Journal*: Vol. 3 : Iss. 2 , Article 5. Available at: <https://pxjournal.org/journal/vol3/iss2/5>

This Article is brought to you for free and open access by Patient Experience Journal. It has been accepted for inclusion in Patient Experience Journal by an authorized editor of Patient Experience Journal.

Why do they do that?: Looking beyond typical reasons for non-urgent ED use among Medicaid patients

Cover Page Footnote

This work was supported by a grant from the Agency for Healthcare Research and Quality, (AHRQ) Grant 1R21HS020693. The research was approved by The Ohio State University Institutional Review Board. The authors are extremely grateful to the patients and ED staff who coordinated and participated in this study. We also thank the funding agency and Jennifer Lehman, Pamela Beavers and Pamela Thompson all of whom were affiliated with The Ohio State University during the study.

Why do they do that?: Looking beyond typical reasons for non-urgent ED use among Medicaid patients

Cynthia J. Sieck, *The Ohio State University, College of Medicine, Department of Family Medicine, cynthia.sieck@osumc.edu*

Jennifer Hefner, *The Ohio State University, College of Medicine, Department of Family Medicine, jennifer.hefner@osumc.edu*

Randy Wexler, *The Ohio State University, College of Medicine, Department of Family Medicine, randy.wexler@osumc.edu*

Chris Taylor, *The Ohio State University, School of Health and Rehabilitation Sciences, chris.taylor@osumc.edu*

Ann S. McAlearney, *The Ohio State University, College of Medicine, Department of Family Medicine, ann.mcalearney@osumc.edu*

Abstract

Barriers to accessing primary care, including lack of transportation and inadequate appointment times, are common reasons for non-urgent emergency department (ED) use yet even when these barriers are addressed, the problem persists. This study explored non-urgent ED use by Medicaid enrollees through interviews with patients and providers and sought to identify themes beyond the commonly mentioned logistical and access issues. Qualitative interviews with 23 Medicaid enrollees and 31 PCP and ED providers utilizing a semi-structured interview guide focused on reasons for seeking care in the ED and issues associated with PCP appointments. We identified overlap as well as surprising differences in themes identified by providers and by patients. Providers identified cultural and educational issues including that many Medicaid patients had grown up using the ED as their main source of care and lacked awareness of other sources healthcare. Patients did not mention educational and cultural factors directly, but discussed a concern that their condition was too serious for the PCP, or that the ED provided more comprehensive services. Both patients and providers raised neglected concepts, particularly those related to understanding primary care compared to emergency care. These results highlight the importance of addressing multiple paths toward more appropriate ED use, including barriers beyond logistical and access-related concerns. Considering the patient's perception of the situation, as well as identifying opportunities to improve patients' understanding of where to seek care may help to create interventions with broader impact than those that address access and logistical barriers alone.

Keywords

Healthcare, qualitative methods, patient experience emergency department, primary care, access

Note

This research was funded by the Agency for Healthcare Research and Quality (AHRQ) Grant 1R21HS020693

Introduction

Emergency Department (ED) use for non-urgent reasons, most prevalent among the Medicaid population [1-4], decreases care quality and increases health system and societal costs [5-9]. Medicaid expansion under the Affordable Care Act could exacerbate this problem and resultant consequences [10, 11] as seen by the increased number of ED visits in Oregon after the 2008 Medicaid expansion [12]. Given this dynamic, there is pressing need to gain a deeper understanding of the reasons Medicaid patients inappropriately use the ED.

Barriers frequently cited as reasons for inappropriate ED use include long waits to obtain a primary care provider (PCP) appointment, limited PCP hours, and lack of

transportation [1, 9, 13, 14]. While many studies use national survey data or highly structured interviews, there is a paucity of data about patients' perspectives and experiences [15, 16] [17]. The few published qualitative studies confirm these access barriers, but also unveil new factors that warrant further exploration, such as patients perceiving their need for care as an emergency, being instructed to go to the ED by their PCP, and having 'toughed it out' until symptoms resulted in an urgent situation [6, 18, 19]. Studies within medical sociology have examined socio-cultural factors impacting health care delivery. For example, some suggest that more frequent ED utilization is related to earlier mortality and greater use of other health care services [20, 21]. Others have emphasized the importance of a social network and patient attitudes in promoting appropriate ED use, however these

factors are often not examined in typical interventions [22, 23].

Further, we have a limited understanding about the perspectives of health care providers with respect to inappropriate ED use. Studies in Australia [24] and France [16] have considered providers' views, but data are lacking on this topic in the U.S. As a result, we know little about the perspectives of those who are on the front lines. We explored these issues through qualitative interviews with patients and providers who participated in an intervention designed to reduce non-urgent ED use among Medicaid enrollees. The research objective was to identify barriers to appropriate PCP use and perceived reasons for inappropriate ED use by patients and providers.

Methods

This analysis is part of a larger mixed-methods study of a health information technology (HIT) intervention implemented to improve access to primary care for Medicaid enrollees and to facilitate ED-PCP communication in an urban academic medical center (AMC) in the Midwest. In the parent study, enrollees seen in the ED for non-urgent concerns and lacking a PCP were randomly assigned to receive either a list of primary care clinics accepting Medicaid (comparison group), or were scheduled for a primary care appointment at a time and location of the enrollee's choice upon discharge (intervention group). The goal of the PCP appointment was to provide follow-up care related to the ED visit and establish a relationship with a PCP. Results of that study are reported elsewhere [25]. In summary, intervention group participants were significantly more likely to obtain a PCP appointment within 3 months of the ED visit. However, there were no significant differences in PCP appointments at 12 months or in the likelihood of returning to the ED for non-urgent concerns.

To better understand why patients continued to seek care in the ED for non-urgent concerns despite connection with a PCP, we conducted a qualitative study with patients and ED and primary care providers focused on obtaining their perspectives on ED and PCP use in general as well as specific to the intervention.

Data Collection

We conducted 52 telephone and in-person interviews with patients and providers. Patients were recruited through follow-up surveys conducted in the parent study. Providers and administrators from ED and PCP offices were recruited by email from the study PI. Interviews were scheduled at a time convenient for the participant, using a semi-structured interview guide tailored to the participant's role. All interviews were recorded and transcribed verbatim. The study procedures received approval from

The Ohio State University Institutional Review Board.

Analysis

We utilized both inductive and deductive methods in an iterative approach, following the constant comparative analytic approach [26]. A coding team of three co-authors CS, JH and AM identified broad themes and developed a preliminary non-mutually exclusive coding dictionary. 'Reasons for non-urgent ED use' was selected a priori as a main theme with additional thematic categories identified. Most of the comments coded as 'Reasons ED' were responses to the direct question asked of patients and providers: "What are some reasons that you (a patient) might go to the ED to get care that might not be considered an emergency?" However, any discussion of this topic in the transcript was also assigned this code. Initial coding decisions were made in two-person teams then discussed by the entire three-person team to reach consensus. Our analysis was conducted using Atlas.ti (version 6.0) qualitative data analysis software [27].

Results

Interview participants included 23 patients, 19 PCPs and administrators (from both Family Medicine and Internal Medicine offices), and 12 ED providers and administrators. We identified major themes related to reasons for use of the ED for non-urgent care (Table 1). Two new emerging themes were cultural factors and educational factors. Traditional health services themes included medical reasons; limited access to primary care; logistical factors related to getting to a primary care appointment; convenience of the ED; and financial factors.

New Emerging Themes: Cultural and Educational Factors

When reflecting on the complexity of non-urgent ED use, providers frequently mentioned cultural and educational issues. Below we describe these issues in greater detail, with additional verbatim comments presented in Table 2.

Cultural Factors

Providers commented that many Medicaid patients had grown up using the ED as their main source of care, and suspected that these patients were not aware of other avenues to access healthcare. We found three emergent subthemes among these cultural factors: grew up using the ED, ED treats the whole family and perception that ED provides better care. All types of providers discussed the concept of having grown up using the ED as a primary source of care. For example, an ED provider stated,

"I think culturally... that a lot of poor people grow up and see their parents and using children's as their

Table 1. Subthemes related to Non-urgent ED use

Major Theme	Provider Subthemes	Patient Subthemes
Cultural factors	Grew up using ED	
	Treats the whole family	
	Perception that ED provides better care	
Educational factors	Don't understand PCP services	
	Don't understand emergency services	
	General health literacy	
Additional common themes	Provider Subthemes	Patient Subthemes
Medical reasons	Pain	Pain
	PCP sent	PCP sent
	Urgent need for care	Perceived emergency
	Exacerbation of chronic condition	Too serious for PCP
	Medicine refill	
	Pregnancy test	
	STD check	
Limited Access	No PCP	No PCP
	Long wait for PCP	Long wait for PCP
	No appt available	After hours
	No access	
	No insurance	
Logistical factors	Childcare	Childcare
	Transportation	Transportation
	Lack of resources	Only ED available
	Difficulty w/appt	
Convenience	No appt required	No appt required
	One stop shopping	One stop shopping
	Always open/after hours	After hours
	Freebies	
	ED treats all	
Financial	No copay	Take Medicaid

primary care doctor, the children's ER, and they have that culturally ingrained in them."

A PCP identified the issue as lacking an understanding not only of appropriate ED use but also about the process of establishing a relationship with a PCP,

"... they were made familiar with it, other people they know just go to the ED, or they don't know how to schedule a visit, or they have no insurance."

Several providers also described situations in which one family member presents as the primary patient but others may use the visit as an opportunity to address their concerns as well. One ED provider told us,

"Yes, we call it a two-for or a three-for. Where you'll have somebody with maybe a semi-acute condition. Like maybe the grandma has chest pain. But then, while the grandma's there, her daughter will come in and will [inaudible] You know that abdominal pain she's had for three months? And while she's there, my kids have had colds for a couple of weeks, can you take a look at that as well?' So maybe a three generational family that will come in."

Educational Factors

Providers perceived a lack of understanding by some Medicaid patients about appropriate use of preventive care compared to acute health services, and generally had lower

Table 2. Cultural and educational factors identified by providers

	Representative Verbatim Comments
Cultural Factors	
Grew up using ED	<p>“... they just come to the ER and that’s acceptable as a primary care alternative. It’s just something they grow up with.” – ED provider</p> <p>“Some may just never have been in a situation or brought up in a home where making appointments and keeping appointments was part of the norm. The norm may have been to go to the emergency room or some other clinic: that’s just all they knew.” – PCP provider</p>
Accustomed to using ED	<p>“It’s in their comfort zones is to show up in the ED every couple days.”- PCP provider</p> <p>“It’s convenient and it’s what they’re used to.” – ED nurse</p> <p>“...because I think a lot of times people just say, you know, “I’m going to the emergency room for this, and I’m just going to use this as my primary care doctor,” and they have that mentality.”- PCP Administrator</p>
Perception that ED provides “better” care than a clinic	<p>“It’s like there’s something special about the emergency department to people who think that if you come, you’re going to get, I don’t know, like hospital care. Or as at the clinic, it’s clinic care.”- ED provider</p>
Educational Factors	
Lack of Understanding About PCPs	<p>“I actually had a girl yesterday who came to me, saying, ‘I’ve been peeing a lot. I think I have a UTI.’ Ok, good. You might actually have a UTI. So we check the urinalysis, and she doesn’t have a UTI, but her sugar is through the roof... So this is a girl that’s walking around and has no idea [that she has diabetes]. Had she come in for regular screenings and whatnot, then she would have known.” – PCP provider</p> <p>“...a lack of understanding of why you need to go to primary care and why you need to do the specialist.” – ED nurse</p> <p>“[Patients do not understand] the idea of going in and getting an established, and having a regular doctor.” – PCP provider</p>
Lack of Understanding About Emergencies	<p>“...education about chronic diseases and the impact on them on uncontrolled hypertension and uncontrolled diabetes, and uncontrolled hypothermia, have on a person’s long term health. And educating that this is something that we really don’t treat in the ER- ED doc.” –ED provider</p> <p>“To them, the complaint might be emergent to them. But in reality, it’s not an emergency.” – ED nurse</p> <p>“They don’t understand what constitutes an emergency. I’ve had a patient who we had yesterday. She’s had a rash since October, and she went to the emergency room. The rash hadn’t been getting worse, and there she was. She could have seen me anytime in that five months. They just don’t understand.” – PCP provider</p>
Low Health Literacy	<p>“the health literacy thing”- PCP provider</p> <p>“lack of education about what the ED is for.” – PCP provider</p> <p>“there’s a lot of people who are uneducated about health and illness in general. And they don’t— they don’t really know, ‘Do I just have a cold, or do I have life threatening pneumonia?’ All they know is that they’re really sick and they don’t feel well, and there’s such a lack of health literacy” – PCP Administrator</p>

health literacy than other patient populations they might treat. Within this theme, we found three emergent subthemes: patients do not understand PCPs, patients do not understand emergencies, and patients have poor

general health literacy. For example, an ED provider addressed health literacy by stating,

“I guess one would be education about chronic diseases

and the impact on them on uncontrolled hypertension and uncontrolled diabetes, and uncontrolled hypothermia, have on a person's long term health. And educating that this is something that we really don't treat in the ER."

Many providers suggested that discussing appropriate utilization in the clinic or ED could help to educate patients about ED versus PCP care. For example, a PCP described the following possible conversation with a patient,

"Hey, you know, next time, if you have this, you don't have to sit in the emergency department for four hours. You could probably, you know, see a physician in a clinic.' From our clinic setting, I mean, we are usually already seeing those patients anyway, so I usually try to give them guidelines for... If this happens, go to the emergency department, if you're just not feeling better, come back and see me."

Some providers felt that instead of teaching patients to use the ED appropriately, the ED adapted to allow inappropriate use to continue. As one PCP stated,

"[We are] creating this split flow, which is basically a primary care practice within the ER, created an avenue for these patients who abuse the ER. So instead of educating them, we've adapted to them. Which I think they should adapt to us."

Finally, providers also noted the complexity of conveying to patients what constitutes a true emergency. An ED provider discussed the issue as

"... the tough part about that is how you define inappropriate ED utilization. Different people, whether your health care provider or patient or other wise, all potentially have all variations on that definition... there are patients who, probably most patients, who go to the emergency department to deal with—it's totally appropriate. So, ... that's their perspective. From our perspective, as providers, ... I think there's just variation in terms of what someone considers something that needs to be addressed right now."

Traditional Themes: Medical Reasons, Access Barriers, Financial Disincentives, Logistical Factors and Convenience

We also identified several previously observed themes contributing to non-urgent ED use: medical reasons, access issues, logistical barriers and convenience of the ED, detailed below, with representative quotations presented in Table 3.

Patients and providers discussed *medical reasons* for visiting the ED. Patients stated they would seek ED care when they perceived the situation was an emergency when they could no longer tolerate pain. They also described seeking emergency care when they did not know how serious their condition was and feared it would worsen. Providers frequently mentioned patient perception of an emergency and issues such as pregnancy/STD tests or medication refills.

Both groups also discussed *challenges related to accessing primary care*: lack of a PCP, long waits for a PCP appointment, and no acute care PCP appointments available. Both noted that unlike a PCP office, the ED is always open, particularly outside a typical workday, and no appointment is required. Providers and only one patient recognized the difficulty of finding a PCP accepting Medicaid. Providers also noted financial disincentives, such as the lack of a copayment for using the ED, might motivate patients to use the ED for non-urgent concerns.

Lack of transportation and childcare were commonly discussed *logistical barriers* to attending PCP appointments often including multiple, interrelated concerns. Patients noted that obtaining childcare or assistance with transportation was more difficult during traditional PCP office hours but was easier at the end of the workday when support from friends and family was available. Providers noted that some patients with transportation barriers would call an ambulance to bring them to the ED or even to a PCP visit.

Finally, *convenience of the ED* was frequently mentioned, particularly related to the ability to receive all the care needed in one location and without an appointment. Patients believed the ED provided more services than a PCP office and could address all of their concerns at once, rather than requiring additional appointments. Providers focused on patients' opportunities to receive a variety of health care services, including medications, in one place as an important factor. Additionally, some providers suggested that patients might choose the ED because EDs are required to treat anyone, regardless of the urgency of their concern. They also noted the availability of food and bus passes or other transportation services in the ED. Further, a few providers discussed the idea that some patients simply had difficulty keeping appointments due to other factors in their lives, or did not want to wait for a PCP appointment.

Discussion

Two major themes that emerged from this analysis are rarely discussed in the literature—cultural and educational factors related to non-urgent ED use, reflecting a contrast

Table 3. ED use factors identified by patients and providers

Factors Identified	Patients' Verbatim Comments	Providers' Verbatim Comments
Medical Reasons	<p><i>Generally, I'd rather see my doctor. But if it's something that is completely out of my control, I'm super uncomfortable and I can't live with it any longer, I'll go to the emergency room. -Patient</i></p> <p><i>Well, I call it an emergency because sometimes it feels like my back and then sometimes it feels like my chest is throbbing. And I don't know if I'm having a stroke or a heart attack, you know? -Patient</i></p>	<p><i>I think patient anxiety is always going to take them to the emergency room.- PCP provider</i></p> <p><i>I've had patients, they would come in with low back pain, nausea, vomiting. Well, they had a urinary tract infection. They didn't even have a kidney infection. But to them, they're dying. Like, they're scared. – PCP provider</i></p>
Limited Access	<p><i>I had to wait too long to be seen for this [at the PCP office] so I went to the emergency room and they took me in and fixed me right on up -Patient</i></p> <p><i>I don't really have a doctor per se. I don't have a doctor, so I only go to the emergency room. -Patient</i></p>	<p><i>It is just in a geographic area, there is a low density of primary care physicians to care for Medicaid Patients, you know, just to get in, and see people.- ED provider</i></p>
Logistical Factors	<p><i>It's hard for me to get in there with my work schedule.- Patient</i></p> <p><i>Because, yeah, you've got to realise during the day time, say for instance, I have to take the bus. Or get a ride from somebody. Because I have nine kids. That's a whole bunch of children I would have to get in somebody else's car. And not only be in the car with me, but be at the appointment with me in the hospital waiting. I have to care for those children as well as tending to myself. -Patient</i></p>	<p><i>Sometimes, even if they call the squad or anything, I think a lot of our patients if they're not on the bus line, or they are on the bus line, or they have a service to bring them in, sometimes I think transportation. – PCP Administrator</i></p> <p><i>A lot of times, they come in, and they don't even have someone to watch their children while they come to the emergency department. Even if they're very ill, they'll have to bring their children along with them because they don't have the resources to have someone that can help them. They'll come by EMS for, you know, a hurt wrist, because they don't have a car, they don't have the money to pay for a bus ride... And when they leave, they don't have a way home. Because they came by ambulance, they can't get home.- ED Nurse</i></p>
Convenience	<p><i>Say for instance you go in there with, you think you probably twisted your arm, or something like that. You can't go to a doctor's office. And they won't give you x-rays and CAT scans that you can get at the emergency room that will give you quicker faster care and something like that. -Patient</i></p>	<p><i>They get medicine right there. They get medication right then. They get treatment right then. They get answers to their test results. So it's a big convenient thing, and that's what they're used to.- ED nurse</i></p> <p><i>I think that working from both the office and the ER, I have seen a frequent pattern of, the patient called, and gets an appointment for tomorrow. But they decided to go to the emergency room today because they wanted to get treated for their cold today, not tomorrow.- PCP provider</i></p>
Financial Reasons		<p><i>I think that the fact that a lot of primary care doctors don't accept Medicaid... I think that drives them to the ER.- ED provider</i></p> <p><i>If it costs the same, or they don't pay for it, if they go to the ED, they get immediate results, and they get treatments there. – PCP provider</i></p> <p><i>... we do have certain patients, but we don't know them when we come in. They demand a bus pass. They demand a meal tray every hour while they're there. They want two pairs of socks while they're there. We know that there's that small percentage of patients who do that. We all know who they</i></p>

in how patients and providers view the health care system. Chief among these were the perception by providers of lack of patient understanding about appropriate use of health services, and a family predisposition toward using the ED for primary care. A 2013 systematic review of studies that identified factors associated with non-urgent ED use found that many studies explored personal demographic, health status and health system factors, but no published study assessed either culture or community norms [9] as described by our physician interviewees.

Many interventions focus on removing health system access and logistical barriers [5, 14, 22], but our analysis suggests these barriers represent only a portion of the reasons for inappropriate ED use. When asked why they chose the ED over seeing a PCP, patient comments focused on pain and fear of the condition worsening, or neglect of a medical condition until it was no longer tolerable. While we classified these issues as ‘medical reasons’, we recognize that they are also associated with the cultural and education factors noted by providers such as inappropriate use of services and health literacy.

While improving access and addressing barriers are certainly important, our findings emphasize the importance of educating patients about how and when to utilize the appropriate source of care. Interventions to provide education about appropriate use of health care services could come from multiple sources including the ED, PCP office, and even school settings. Current community level interventions attempt to address issues of education and culture related to health care use. For instance, in the “Aligning Forces for Quality” initiative, participating communities addressed inappropriate ED use with traditional care coordination interventions and more unique patient education programs. Further, a media campaign to educate patients on “Emergency vs. Urgency” and providing patient education toolkits to primary care practices are examples of these targeted interventions [28]. These studies represent important steps in understanding the educational tools needed to help patients better understand how to seek the right care at the right place.

Inappropriate ED use is particularly relevant as Medicaid expansion increases the number of enrollees. While concerns about the impact of the increase in enrollee volume on an already strained network of PCPs accepting Medicaid are well documented, our study highlights an issue beyond volume [29, 30] [31]. Newly covered Medicaid enrollees may be unaccustomed to using primary care and may not understand the role of a PCP versus the ED. They may therefore revert to previously established patterns of seeking care in the ED regardless of the concern. These issues must be addressed alongside access and logistical factors. Such efforts to direct patients to the most appropriate source of care may benefit the Medicaid

system by decreasing costs and, more importantly, improving care for patients by improving care continuity.

The impact of financial issues was another prominent theme, but was discussed frequently only by providers. These providers suggested that the lack of a copayment requirement and the availability of a range of services in the ED presented significant disincentives that might hinder efforts to promote appropriate ED use. Given the current dynamic of Medicaid expansion across the US, it will be important to understand how patients weigh health care copayments with other financial costs in their lives when choosing a source of care [10, 11, 32].

Interviewees also discussed access and logistical barriers as significant reasons for choosing the ED over a PCP office for non-urgent medical issues, a finding supported by quantitative studies in the literature [5, 6] [17]. We noted an overlap between the access-related issues raised by providers and those discussed by patients. Similarly, among medical reasons discussed, both providers and patients identified pain and the patient’s interpretation of the situation as an emergency as contributors to inappropriate ED use. Lack of a PCP and time required to establish a PCP relationship, as well as limited appointments at times that fit the schedules of patients lacking sick time from their jobs, were also access-related issues both interviewee groups noted.

Limitations

Several factors limit the generalizability of this study. First, our sample was relatively small. We mitigated this limitation by conducting interviews until saturation was reached in our data (i.e., no new themes were raised in subsequent interviews). Second, these interviews took place at a single health system. Patients in other demographic areas may experience different issues related to ED and PCP utilization, especially given state variation in Medicaid policies. Finally, our study examined only the perspectives of Medicaid patients. While these perspectives are relevant, particularly in light of Medicaid expansion efforts, patients with private or no insurance might note different issues leading them to use the ED for care.

Conclusion

Use of the ED for non-urgent reasons is a multifaceted and complex issue and interventions aimed at decreasing only access or logistical barriers may experience limited success. The intervention originally tested in our study showed that scheduling an appointment alone was not sufficient to encourage Medicaid patients to consistently seek non-urgent care from a PCP. Both patients and providers noted additional issues that must be addressed in efforts to decrease non-urgent ED use and increase

connections to primary care, with providers suggesting that educational and cultural factors should not be overlooked. These results highlight the importance of considering barriers beyond logistical and access-related concerns when addressing inappropriate ED use. Considering the patient's perception of the situation, as well as identifying opportunities to improve patients' understanding of when to seek PCP versus ED care, may help to create interventions with a broader impact than those that address access and logistical barriers alone.

References

1. Cheung, P.T., et al., *National study of barriers to timely primary care and emergency department utilization among Medicaid beneficiaries*. *Annals of Emergency Medicine*, 2012. **60**(1): p. 4-10.e2.
2. Cunningham, P. and J. May, *Insured Americans drive surge in emergency department visits*. Issue brief (Center for Studying Health System Change), 2003(70): p. 1-6.
3. Garcia, T.C., A.B. Bernstein, and M.A. Bush, *Emergency department visitors and visits: who used the emergency room in 2007?* NCHS data brief, 2010. **(38)**(38): p. 1-8.
4. Gandhi, S.O., L.P. Grant, and L.M. Sabik, *Trends in nonemergent use of emergency departments by health insurance status*, in *Med Care Res Rev*. 2014, The Author(s) 2014.: United States. p. 496-521.
5. Bamezai, A., G. Melnick, and A. Nawathe, *The cost of an emergency department visit and its relationship to emergency department volume*. *Annals of Emergency Medicine*, 2005. **45**(5): p. 483-490.
6. Brim, C., *A descriptive analysis of the non-urgent use of emergency departments*. *Nurse Researcher*, 2008. **15**(3): p. 72-88.
7. Carret, M.L., A.C. Fassa, and M.R. Domingues, *Inappropriate use of emergency services: a systematic review of prevalence and associated factors*. *Cadernos de saude publica / Ministerio da Saude, Fundacao Oswaldo Cruz, Escola Nacional de Saude Publica*, 2009. **25**(1): p. 7-28.
8. Mehrotra, A., et al., *Comparing costs and quality of care at retail clinics with that of other medical settings for 3 common illnesses*. *Annals of Internal Medicine*, 2009. **151**(5): p. 321-328.
9. Uscher-Pines, L., et al., *Emergency department visits for nonurgent conditions: systematic literature review*. *Am J Manag Care*, 2013. **19**(1): p. 47-59.
10. Katz, E.B., et al., *Comparative effectiveness of care coordination interventions in the emergency department: a systematic review*. *Annals of Emergency Medicine*, 2012. **60**(1): p. 12-23.e1.
11. Smulowitz, P.B., et al., *Increased use of the emergency department after health care reform in Massachusetts*, in *Ann Emerg Med*. 2014, Inc: United States. p. 107-115, 115 e1-3.
12. Taubman, S.L., et al., *Medicaid increases emergency-department use: evidence from Oregon's Health Insurance Experiment*. *Science*, 2014. **343**(6168): p. 263-8.
13. Wexler, R., et al., *Use of HIT to Increase Primary Care Access in Medicaid Patients: A Mixed Methods Study*. Manuscript under review, 2014.
14. Rust, G., et al., *Practical barriers to timely primary care access: impact on adult use of emergency department services*. *Archives of Internal Medicine*, 2008. **168**(15): p. 1705-1710.
15. Hefner, J.L., R. Wexler, and A.S. McAlearney, *Primary Care Access Barriers as Reported by Nonurgent Emergency Department Users: Implications for the US Primary Care Infrastructure*. *American Journal of Medical Quality : The Official Journal of the American College of Medical Quality*, 2014.
16. Durand, A.C., et al., *Nonurgent patients in emergency departments: rational or irresponsible consumers? Perceptions of professionals and patients*. *BMC research notes*, 2012. **5**(1): p. 525.
17. Lozano, K., et al., *Patient Motivators for Emergency Department Utilization: A Pilot Cross-Sectional Survey of Uninsured Admitted Patients at a University Teaching Hospital*. *The Journal of emergency medicine*, 2015. **49**(2): p. 203-210. e3.
18. Shaw, E.K., et al., *Decision-making processes of patients who use the emergency department for primary care needs*. *Journal of health care for the poor and underserved*, 2013. **24**(3): p. 1288-1305.
19. Koziol-McLain, J., et al., *Seeking care for nonurgent medical conditions in the emergency department: through the eyes of the patient*. *Journal of emergency nursing: JEN : official publication of the Emergency Department Nurses Association*, 2000. **26**(6): p. 554-563.
20. Hansagi, H., et al., *Frequency of emergency department attendances as a predictor of mortality: nine-year follow-up of a population-based cohort*. *Journal of Public Health*, 1990. **12**(1): p. 39-44.
21. Hansagi, H., et al., *Frequent use of the hospital emergency department is indicative of high use of other health care services*. *Annals of emergency medicine*, 2001. **37**(6): p. 561-567.
22. Andr n, K.G. and U. Rosenqvist, *Heavy users of an emergency department—a two year follow-up study*. *Social Science & Medicine*, 1987. **25**(7): p. 825-831.
23. Stratmann, W.C. and R. Ullman, *A study of consumer attitudes about health care: the role of the emergency room*. *Medical care*, 1975: p. 1033-1043.
24. Masso, M., et al., *Why patients attend emergency departments for conditions potentially appropriate for primary care: reasons given by patients and clinicians differ*, in *Emerg Med Australas*. 2007: Australia. p. 333-40.

25. Wexler, R., et al., *Connecting Emergency Department Patients to Primary Care*. The Journal of the American Board of Family Medicine, 2015. **28**(6): p. 722-732.
26. Conostas, M.A., *Qualitative analysis as a public event: The documentation of category development procedures*. American Educational Research Journal, 1992. **29**(2): p. 253-266.
27. Development, S.S., *Atlas.ti*. 2013, Scientific Software Development: Berlin.
28. Foundation, R.W.J., *What We're Learning: Reducing Inappropriate Emergency Department Use Requires Coordination with Primary Care* in Issue Brief. 2013.
29. Hughes, L.S., et al., *Transforming training to build the family physician workforce our country needs*. Fam Med, 2015. **47**(8): p. 620-7.
30. Tipirneni, R., et al., *Primary Care Appointment Availability For New Medicaid Patients Increased After Medicaid Expansion In Michigan*. Health Affairs, 2015: p. 10.1377/hlthaff.2014.1425.
31. Roberts, E.T. and D.J. Gaskin, *Projecting Primary Care Use in the Medicaid Expansion Population Evidence for Providers and Policy Makers*. Medical Care Research and Review, 2015: p. 1077558715588435.
32. Thompson, T.S., *Out-of-network involuntary medical care: An analysis of emergency care provisions of the Patient Protection and Affordable Care Act*. Public Law, 2010. **111**: p. 148.