

**Non-Urgent Pediatric Emergency Department Visits:  
A Qualitative Analysis of Caregiver and Physician Perspectives**

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**Abstract**

*In fall 2007, the Medical College of Wisconsin, in conjunction with Children's Hospital of Wisconsin, began a qualitative study to examine the practice of children being presented in its pediatric emergency department (PED) for non-urgent care. The specific aims of the study were to identify "breakdown" points in the primary care process and to determine what, if any, interventions were possible to stymie this practice. A graduate student from the University of Wisconsin-Milwaukee, who was interested in whether there is a sociological explanation for this practice by caregivers, wrote this thesis. The study included 26 quality of care (QOC) surveys and 49 in-depth interviews with caregivers who had presented their children in a pediatric emergency department for non-urgent care and with their children's primary care physicians (PCPs).*

## **Section One: Research Objectives and Literature Review**

This study's objectives are to explain how pediatric emergency department (PED) visits for non-urgent care occur and to determine what, if any, aspects of the primary care process may encourage this practice. While it does not take a political or philosophical position about the health care system, this paper necessarily explores various contexts for its research questions, including the United States (U.S.) health care system, emergency department policies and practices, and continuity of care, as a background for its original qualitative findings.

### **Existing Research**

Studies on this subject have identified the most common reasons that caregivers state for why they seek acute medical care for their children in non-urgent situations. A 2007 study by the Children's Hospital of Wisconsin conducted audio-taped interviews with thirty-one caregivers who brought their children into the PED for non-urgent conditions.<sup>1</sup> The study found that the most common reasons for this occurrence were: 1) PCP referral to the PED; 2) efficiency and perceived higher quality of care of PED; and 3) dissatisfaction with PCPs, including long waits and communication problems.

Researchers in a University of Texas Southwestern Medical Center at Dallas study interviewed thirty-one families of children arriving at a children's hospital emergency department on weekdays (8:00 a.m. to 4:00 p.m.) over four weeks.<sup>2</sup> The reasons given by caregivers for the PED visit echoed previous findings: 1) long appointment waits at PCP offices; 2) problems with

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<sup>1</sup> Barry, N., Brousseau, D., Brotanek, J. M., Tromany-Korman, S., and Flores, G. (2007). Why Do Parents Bring Children to the Emergency Department for Nonurgent Conditions?: A Qualitative Study.

<sup>2</sup> Gardner, A. Parents Often Choose ER for Routine Kids' Care: Wait times, frustration with primary care doctors is driving the trend, study finds. U.S. News and World Report (24 November 2008).

communication (between the caregiver and PCP); and 3) PCP referrals. This study also presented a challenge to the perception that insurance coverage is a determining factor in caregivers' decision to present their children to the PED for non-urgent care, as approximately 95% of the families in the study had some form of insurance and 97% had a primary care physician.

Researchers in Rochester, New York, conducted interviews with caregivers of children brought to the PED and the PED staff over the course of three days in 2006.<sup>3</sup> The study reported that most families had been referred to the PED by their PCP and concluded that a lack of trust in their PCP was not a critical determinant to why caregivers chose the PED for care, which was at odds with a previous study's finding that found lack of trust in the PCP to be significant (Chin et al, page 22).

A study published in April 2009 reported that the decisions by caregivers in Brisbane, Queensland, in Australia, to present their children in the PED for non-urgent care were multifactorial.<sup>4</sup> This finding is critical because it focuses on the decision-making process of the caregiver in the situation examined in the study, rather than focusing on isolated reasons that may reflect general, unconnected frustrations of the caregiver. One major factor was consultation with their child's PCP: in fact, two-thirds of caregivers in the study considered or took their children to a child's PCP before presenting them to the PED. One-quarter of the caregivers were unable to access a PCP for various reasons.

The reasons for the visit were, in ascending order by rate, 1) perceived severity of their child's illness; 2) expertise of doctors; 3) feeling that the hospital was a "one-stop shop"; and 4)

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<sup>3</sup> Chin, N.P., Goepp, J.G, Malia, T., Harris, L., and Poordabagh, A. (2006). Nonurgent Use of a Pediatric Emergency Department: A Preliminary Qualitative Study. *Pediatric Emergency Care*, Vol. 22, No. 1.

<sup>4</sup> Williams, A., O'Rourke, P., and Keogh, S. (2009). Making choices: why parents present to the emergency department for non-urgent care. *Archives of Disease in Childhood*. [www.adc.bmj.com](http://www.adc.bmj.com). Retrieved on 21 September 2009.

a belief that their children would end up there anyway (Williams et al, page 818). The insurance coverage of this study population was 61% government insurance and 39% commercial insurance.

The study also found that the caregivers assessed their children's condition before bringing them to the PED, a process the researchers called "parental triage." This is an important point, as it is often assumed that caregivers who present their children to the PED for non-urgent care do not attempt to assess or address the problem on their own.

Well-Child Care (WCC) is the foundation of child health care services in the United States.<sup>5</sup> A Los Angeles-based study examined the views of low-income caregivers about WCC. Several notable themes emerged, including caregivers reporting difficulty communicating with their children's primary care physician outside of scheduled visits and difficulty with transportation for well-visits that they believe could have been addressed over the phone. The former finding is consistent with other studies that cite communication with primary care doctors as being a reason for presenting children to the PED. This theme suggests that availability to PCPs via phone would decrease the number of non-urgent PED visits, though this contradicts a major finding in this study that caregivers believe that triage done via phone is never as valuable as an in-person assessment.

Other themes centered around caregivers' recommendations for better WCC services. Caregivers believed that counseling/guidance services could be done more effectively by non-physician adjuncts, such as registered nurses, nurse practitioners, physician assistants, and counselors or psychologists. The caregivers were also enthusiastic about non-traditional settings for WCC such as home visits, day care centers, and retail-based clinics (Cooley et al, pp. 199).

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<sup>5</sup> Coker, T.R., Chung, P.J., Cowgill, B.O., Chen, L., and Rodriguez, M.A. (2009). Low-Income Parents' Views on the Redesign of Well-Child Care. *Pediatrics*, 124; 194-204.

While these recommendations suggest that there may be practical reforms to WCC that could decrease the non-urgent visits to the PED, there are some drawbacks to their implementation. One such drawback is that various points of WCC services could lead to fragmentation and a weakened continuity of care. As previously established, continuity of care leads to better health outcomes compared to care provided by multiple providers, including specialists and emergency providers. Other implementation challenges of these recommendations, as raised in the study, are coordination of non-traditional WCC sites and a billing system that supports each service point.

There is also evidence that high-quality primary care providers, or “medical homes,” correlate to fewer PED visits and hospitalizations for chronic pediatric conditions like asthma.<sup>6</sup> A study conducted in five states and the District of Columbia looked at Medical Home Index (MHI) scores determined by a survey of families with children who have chronic conditions. The MHI was broken into six general areas of evaluation, which represent a composite of medical home goals: 1) organizational capacity; 2) chronic condition management; 3) care coordination; 4) community outreach; 5) data management; and 6) quality improvement. The researchers performed factor and descriptive analyses on utilization of various pediatric services and the family survey data.

Though there were a number of limitations to this study, a significant finding was strong negative correlations between the overall MHI score and PED and hospitalization and rates. If medical homes are able to reduce hospitalization for chronic conditions and PED visits, it is worth additional investment in increasing medical homes within the current pediatric continuum of services.

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<sup>6</sup> Cooley, W.C., McAllister, J.W., Sherrieb, K., and Kuhlthau, K. (2009). Improved Outcomes Associated With Medical Home Implementation in Pediatric Primary Care. *Pediatrics*, 124; 358-364.

## **Section Two: Methodology and Limitations**

### **Methodology**

Quantitative findings in this area have produced information about the reasons for non-urgent PED visits—that is, why non-urgent PED visits occur. A few qualitative studies have begun to examine the steps leading up to the PED visit, which gives context to the individual reasons. This study is qualitative: it aims to *explain how* pediatric emergency department visits for non-urgent care occur and to determine what, if any, aspects of the primary care process may encourage this practice. It is necessary to view the experience from the perspectives of both the caregiver and the PCP of the child that is presented to the PED to illustrate a clear process for this practice that can explain and perhaps even anticipate behavior based on key common factors among systems and people.

The study sample was purposeful. Caregivers whose children received a “5” in the Children’s Hospital of Wisconsin Emergency Department, the least-urgent number in the ordinal Emergency Severity Index, were asked to complete a voluntary survey (see Appendix B for survey data). Researchers identified characteristics of these caregivers, including level of satisfaction with their PCPs, race and age of the child, and type of insurance coverage, to gain a diverse sample for confidential interviews. Two sets of caregiver interviews represent emergency department visits made on weekdays and weekends, evenings and daytime, and two different seasons to account for seasonal changes in the types of health issues that children experience, summer and late fall/early winter. While these factors are considered to some extent in the findings, they were not controlled.

The researchers then collected original data from forty-nine audio taped interviews in

four consecutive sets: 1) thirteen caregivers of children whose medical needs were triaged as a “5” at the Children’s Hospital of Wisconsin Emergency Department at the time of presentation (Fall 2007); 2) ten primary care physicians to these children (Spring and Summer 2008); 3) thirteen additional caregivers of children whose medical needs were triaged as a “5” at the Children’s Hospital of Wisconsin Emergency Department (Fall 2008); and 4) the thirteen physicians to the children of the second set of caregivers who were interviewed (Fall 2008/Winter-Spring 2009). Caregivers voluntarily participated in the interview and were each given a \$50.00 gift card for their participation. The physicians participated voluntarily with no additional incentive. All personal data was kept confidential; the physicians were not told which patient’s caregiver participated in the study.

Almost all of caregivers were female, all of whom were the mothers of the children. The primary care physicians in the study were included because the children who were brought into the PED were listed as their patients. In almost all cases, the primary care providers were told the events related to the non-urgent PED visit as told to the interviewer by the caregiver and they were asked to provide feedback about the events. In a few cases when the patient’s primary doctor was not able to be interviewed (e.g. retired, unable to be located based on the information provided, etc.), additional primary care physicians were interviewed and asked to respond to a description of events hypothetically.

The data was coded based on the content of the interviews. The researchers used *Atlas.ti*, a sophisticated data retrieval system that allowed the researchers to analyze multiple code-queries to discern associations or patterns in the data. There are two sets of codes, one for caregivers and one for physicians, though cross-coding was used to re-construct communication between caregivers and PCPs or primary care staff in specific instances.

### **Limitations of the Study**

This study was conducted at a pediatric emergency department as opposed to a general population ED, which can account for the perception by some caregivers that they receive better care for their children at this location. This difference may be significant in the sample, as both the caregiver and physician data indicate mistrust in the care that non-pediatric emergency departments provide to children.

The Children's Hospital of Wisconsin PED is located in the most populous urban area of Wisconsin, which may account for a higher level of utilization that is not likely to occur in most rural and some suburban areas and because of transportation access and/or time. In addition, there are many more doctors and patients in an urban setting, which is likely to result in less significant normative relationships between doctors and patients and/or caregivers than those in a less populous area. Another distinction of an urban setting is the higher level of poverty and stress among the patient and caregiver populations as compared to the general U.S. population. For these reasons, the location of the PED in this study may limit the generalizability of the findings.

While the data reflect a pattern of PED use for non-urgent care among the caregivers, the study does not triangulate the PED utilization history of the caregivers in relation to this particular PED visit ("event"). This means that the findings will potentially treat the behavior of a non-urgent PED visit the same as a 100th non-urgent PED visit by single caregiver.

The physicians who were interviewed in this study were aware that they were selected because they were listed as the primary care provider by caregivers who had brought their child(ren) into the PED for non-urgent care. This knowledge potentially affected their ability to analyze the circumstances surrounding the PED visit objectively, rather than with the bias that

the visit was unnecessary.

A major limitation of the study is that it does not compare its findings to a group of caregivers that did not bring their children into the emergency department for non-urgent conditions. Without this comparison, we can only analyze similarities and differences within a sample that has only one event in common: the non-urgent visit that led the caregivers to participate in this study. This gives rise to the possibility of alternative hypotheses that cannot be explored with this data.

### **Section Three: Findings about the Use of the Pediatric Emergency Department for Non-Urgent Care**

*1. The decision by caregivers to present their children in the pediatric emergency department relies on what options are available at the time the care is needed and their level of confidence in the options that are available.*

Caregivers in this study ultimately presented their children to the pediatric emergency department after evaluating the same two-part question: 1) what services are available at the time the care is needed; and 2) their level of confidence in the available options. Because the evaluative process for the caregivers in this study did not hinge on a single factor, the order of these two criteria was interchangeable: confidence could predetermine availability of options just as the caregiver could identify the options for available care before determining in which services he or she was confident, based on the condition.

Availability of options does not always depend on accessibility. As part of “parental triage,” a caregiver may assign a level of severity to a condition that is higher than what it is truly, which may exclude primary care as a possibility, even if it is during office hours and if he or she has confidence in the child’s PCP. Cases in which the caregiver may assign a high level

of severity is 1) if this is his or her first experience with the condition (e.g. the child has croup); 2) if this is a condition that has grown worse in the past (e.g. the child had diarrhea and became severely dehydrated at a younger age, so the caregiver believes the child will end up going to the PED anyway); 3) if this is a condition that the caregiver feels he or she cannot delay for fear that it will grow worse (e.g. the child fell and has a bump on his or her head and the caregiver is concerned that it might be a concussion); or 4) if the condition and necessary remedy are known and the child is in extreme pain (e.g. the child has an ear infection and the caregiver does not have the proper medication).

In the following situation, the caregiver is basing her decision on two factors as explained in the second scenario above: this has happened before and she does not want it to get worse again. She understood that calling the doctor was an option, but, because of a negative experience with the same condition, she does not have confidence in that option.

*“I really didn't even call the doctor. I figured that was something that I could go ahead and go through the emergency room for because I did not want her to get dehydrated and get even worse off from that. We took her straight in and we didn't even bother calling the doctor.”*

A male caregiver said that the parental triage process that he and his children's mother follow was not uniform for each potentially urgent medical event:

*Interviewer: “When you go through a process where you are considering going [to the PED]...is there is a typical process you follow in terms of who is making these decisions or who you are consulting... or it depends on the situation?”*

*Caregiver: “It depends on a situation, it really does.”*

*Interviewer: “Are you the primary caregiver?”*

*Caregiver: “No, no, their mother is.”*

*Interviewer: “Their mother is, so is she involved in these decisions.”*

*Caregiver: “Yes, big time.”*

*Interviewer: “Okay, so it's a discussion?”*

*Caregiver: “Yeah.”<sup>7</sup>*

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<sup>7</sup> Confidential interview by author. Milwaukee, WI, 6 November 2008.

***2. A variety of factors contribute to a caregiver's confidence in the available options for care.***

The level of confidence of caregivers in the options that are available when their children need care is a quotient of their personal experiences and characteristics. The extent to which the caregiver is familiar with and trusts the child's primary care physician figures prominently into the likelihood that they will contact the child's PCP in a situation that is a potential emergency, yet this relationship is not strong enough to be correlative.

The factors that can increase the likelihood of non-urgent pediatric visits to the emergency department relate directly to the caregiver's personal experiences or characteristics, including age, socio-economic status (i.e. a combination of income, insurance coverage, education, and employment), negative health care experiences, and potentially, cultural background.

Age was not captured in this study, though previous studies have found that caregivers who bring their children to the PED for non-urgent care tend to be under the age of 30 on average. This has intuitive merit, as younger parents tend to be less experienced with the medical needs of children and are therefore less confident in discerning the severity of particular conditions. The younger caregivers in this study all had a supportive person with whom they consulted before bringing their children into the PED, including the other caregiver, their mother, or their mother in-law. In these cases, the older female somehow influenced the caregiver's decision to utilize the PED:

*"She told me to, well, the first couple of days, she was telling, you know, we don't just go rush the baby to the hospital, [be]cause I was going to rush him to the hospital or something. Because I'm a first-time parent, and when you just notice something wrong, you just take him to the hospital. She was telling me just to give it a few days, call the doctor, and see what they say..."<sup>8</sup>*

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<sup>8</sup> Confidential interview by author. Milwaukee, WI, 13 November 2008.

*“I don't trust them [PCP] and it is to the point now where my mother is from the South, and with these old Southern women, it is sometimes better to take her to my mother than take her to the pediatrician, which is sad, but you know it goes. To show you what kind of relationship you have with them [PCP].”<sup>9</sup>*

This caregiver touches on the lack of a quality relationship with her child's PCP, lack of trust, and propensity to defer to her mother. She also mentions age and culture directly—“old Southern women” — signaling that these characteristics engender her trust when it comes to medical decisions about her child(ren).

Insurance coverage has been posited in quantitative studies to be a strong indicator of non-urgent use of the PED (Hong et al, 2007). The majority of the subjects in this study had either some type of government insurance or no insurance. Few had commercial, or private, insurance. A lack of affordable health insurance poses a disincentive to use primary care, as the co-pays can be expensive for a caregiver who has limited resources. Emergency care co-pays are typically higher than primary visit co-pays for those with insurance, but patients generally know that they can receive care in the ED/PED regardless of their ability to pay. Most caregivers indicated that they do not see bills. The few caregivers who did pay the higher co-pays at the PED (i.e. those with commercial insurance), considered the benefit of emergency care for their children to outweigh the financial cost.

*“Because, like I said, at the doctor's office you might pay less, but they are not doing as much work for you. In the emergency room you pay a little bit more, but you are going to know what is wrong with you by the time you leave. They are going to tell you what to do and how to take care of yourself.”<sup>10</sup>*

The caregivers who had experienced traumatic situations in which they, a child, or other family member were ill and were not properly treated, used the ED for conditions that ranged in acuity because they were unwilling to risk another potentially negative experience. The

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<sup>9</sup> Confidential interview by author. Milwaukee, WI, 27 October 2008.

<sup>10</sup> Confidential interview by author. Milwaukee, WI, 24 October 2008.

caregivers who speculated that a PCP could not have prevented the emergency room visit in question generally stated that they did not trust or did not like their current primary care doctors. Most often, this lack of trust or comfort was based on past experiences in which they either did not feel that the doctor knew what to do about a condition or that the doctor was satisfied with gradual progress versus a more expedient result.

*“He had broke out in, like, a rash after a fever, and I guess that's kind of normal for these red rash, or whatever, after a fever, but I still called, and I told her about it, and she really didn't-she told me to bring him in, and she checked him out, and she goes, like, ‘Well, I don't think anything's wrong, but...’ She prescribed me, like, two different medications. She prescribed me one medication and told me to take this for three or four days and if it don't work out... And it didn't have anything to do with rashes, like, almost like Benadryl, basically.”<sup>11</sup>*

In some cases, the negative experience does not have to be the exclusive reason a caregiver has a lower level of confidence in primary care. As with all emotional experiences, the precise effect of one event on behavior is difficult to measure:

*“I don't know, like, with my previous doctors I had a bad experience, but that is not the reason why I don't call there. Part of it, I am thinking, is that I just am trying to get immediate help.”<sup>12</sup>*

Racial or ethnic differences in non-urgent PED use have been observed to be the consequence of a confounding relationship between race/ethnicity and SES. When all four SES indicators are accounted for, the strength of the relationship between race/ethnicity and PED use is not statistically significant (Hong et al, 2007). The observations of race as a factor in PED use within the boundaries of this study do not have an independent explanatory value.

Cultural background, which has broader conceptual reach than race, can play a role in a caregiver's use of the PED. Caregivers of color in this sample were more likely to consult an elder female family member outside of a co-caregiver than white caregivers. Cultural norms

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<sup>11</sup> Confidential interview by author. Milwaukee, WI, 13 November 2008.

<sup>12</sup> Confidential interview by author. Milwaukee, WI, 10 October 2008.

may also guide some caregivers to take full advantage of available medical care regardless of the severity of the situation due to a consistent lack of access to quality services.

### ***3. Caregivers' need for immediate reassurance is critical to decisions.***

A need for immediate reassurance was widely consistent among caregivers as they considered their options. The caregivers' responses indicated that a medical diagnosis via telephone is not as reliable as one made in person, since the PCP in that situation can only gauge discomfort or pain of their child(ren) secondhand.

*“So, I mean, it is really not much that they could really say I mean [be]cause it is over the phone conversation and it's a lot different then taking the kid through it to having him actually looked at. You know, trying to explain to somebody over the phone what is going on...it is a big difference.”<sup>13</sup>*

Though this study does not specifically look at the relationship between caregivers' need for immediate reassurance and non-urgent PED visits, it is likely that there is an association between the two. Likewise, it can be inferred that the need for immediate reassurance goes down as the caregiver's confidence increases. The caregivers in this study talked about their confidence increasing with more experience with specific conditions, having more children, becoming older, receiving guidance from PCPs, and, in some cases, guidance from supportive persons in their lives. Based on these premises, it can be concluded that caregivers' increased confidence in their own ability to handle their children's medical situations by attempting solutions at home or by contacting the primary care physician during or after hours will decrease their need for immediate reassurance and the number of non-urgent PED visits they make.

### ***4. Caregivers and primary care physicians do not see non-urgent pediatric emergency visits as a disruption to primary care.***

Until this study, there has been little written about the perspectives and actions of primary

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<sup>13</sup> Confidential interview by author. Milwaukee, WI, 6 November 2008.

care physicians concerning this practice. The findings here suggest that primary care physicians see themselves as one part of a complex system and can attend to their patients' needs only within the traditional context of primary care.

This study was consistent with previous quantitative findings that primary care referrals to the PED play a significant role in this practice. It is important to understand the circumstances in which PCPs or members of their staff make the non-urgent referrals to the PED. These referrals are often based on a few questions by the primary physician or staff member to the caregiver to ascertain the nature of the problem, almost always via phone. The person making the referral is relying on the caregiver's account of the situation. It does not appear that patient records were consulted in any situation in this study, whether the referrals were made during or outside of office hours. Only one provider mentioned that he is able to view electronic medical records of his patients when he is out of the office, which raises a question about the value of increased access to electronic medical records.

The PCPs consistently said that they err on the side of caution if the situation may be serious or could potentially become serious.

*"If they [the caregiver] sound[s] frantic, I kind of have to trust their judgment and their instinct. What if something bad does happen? I'd feel horrible."*<sup>14</sup>

The caregivers who were referred to the emergency room by the primary care doctor or a member of the primary care staff tended to have a higher level of confidence in their primary care providers, though this was not a significant indicator:

*"When I talked to my pediatrician, she said take him to the emergency room. She said since it doesn't seem like a viral infection since he does not have a rash. If she said 'it should be okay' and 'call me tomorrow if he still has a fever,' I probably would have listened to her."*<sup>15</sup>

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<sup>14</sup> Confidential interview by author. Milwaukee, WI, 3 February 2009.

<sup>15</sup> Confidential interview by author. Milwaukee, WI, 25 September 2008.

In all cases in which the caregiver contacted the primary care provider before going to the emergency department, the PCP or primary staff member either suggested the visit or validated the decision to visit the PED. They often reiterated that there are circumstances in which it might be a close call as to whether they should refer the patient to the PED, so they leave the final decision in the hands of the caregiver:

*“If they tell me that ‘my kid is not the same kid that I had known’ - especially if they are infants - right away, what’s in my brain is ‘think of sepsis, think of meningitis, get the kid to be seen.’ So I have learned to accept the mother’s judgment more than, maybe, many of my colleagues do...I would rather be wrong 1,000 times than I make one mistake and miss a sepsis or meningitis.”<sup>16</sup>*

Most of the caregivers who did not seek a referral by their PCP or the a member of the primary staff expressed that it would not have mattered if the doctor had personally told them it wasn’t necessary to go in to the emergency room for the visit in question, that they would have gone anyway.

*“Sometimes, this is my only child, and sometimes I can get a little overworked and worked up about some things that may not be as easy as we thought. Then there are a lot of times the doctor says this is what is wrong then you feel stupid, like, ‘Oh, God, that is it, she just had gas’...sometimes I have to admit that sometimes I got really worked up and will call for everything like a cold or something and I should have taken her to the doctor.”<sup>17</sup>*

Most of the physicians who were not contacted felt that it would have been better if the caregiver had consulted with them to avoid a so-called unnecessary visit to the PED. One exception to this preference was in a case in which the mother expressed that she knew her child had an ear infection and she knew what medicine was necessary, as she had been diagnosed with an ear infection twice before. It was outside of primary care hours (6:00 p.m. on a Sunday), so the caregiver tried an urgent care clinic, which was also closed, then went to the PED. The doctor in this case was satisfied that the mother acted appropriately given the circumstances.

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<sup>16</sup> Confidential interview by author. Milwaukee, WI, 30 September 2008.

<sup>17</sup> Confidential interview by author. Milwaukee, WI, 27 October 2008.

Another exception was a PCP who directly said that she did not see a loss of continuity when she is not contacted about minor, non-urgent incidents that are seen elsewhere:

*“I think I would lose more continuity if they needed to then be admitted to the hospital and had stayed in the hospital for a week. I can actually get kind of out of the loop there, where two weeks later then I suddenly find out, oh, they have been in the hospital for a week. But for these kind of smaller, urgent care kind of things where it turns out to be an essentially benign evaluation, I don't think I lose a lot of continuity in their care.”<sup>18</sup>*

Almost all physicians said that there are some caregivers who are frequent users of the PED for non-urgent care and that perception seemed to vary based on the caregiver population with whom the doctor worked. A few physicians cited lower income level, and the resulting stress, or lower education level, as common associations to this practice. One doctor ascribed this occurrence to a lack of understanding:

*“Sometimes it is just that they don't understand. I have had a couple patients like that, too, they don't understand they don't just come here for well checks, they need to come here for their sick visits, too. I have had a couple of those, but the majority of the time I will say this is something that we definitely could've taken care of during office hours, so next time this happens, if it happens, you call here first and make an appointment, so we do follow up.”<sup>19</sup>*

A few PCPs commented that some situations might have been more easily corrected if the patient had been presented to the primary care doctor sooner. When caregivers do not contact PCPs at an early point when the caregiver has a concern about the medical situation of the child, the situation can worsen and the PED may be the best option, based on a description of the symptoms at the time of the call:

*“I just told them [PCP] my kid has now been running a fever for the last two days. It's worse and it's higher now and I told her what his temperature was and I told her that he was thirsty and it seemed like he was constipated too, [be]cause he hadn't went in almost two days. Usually he goes like once a day, so I noticed he hadn't went at all, so I told her that and she was like, “Just take him in to Children's and see what they say.”<sup>20</sup>*

<sup>18</sup> Confidential interview by author. Milwaukee, WI, 11 December 2008.

<sup>19</sup> Confidential interview by author. Milwaukee, WI, date unknown.

<sup>20</sup> Confidential interview by author. Milwaukee, WI, 13 November 2008.

According to the caregivers, exchanges about the PED visit during the follow-up, or an unrelated subsequent visit, either did not occur or were routine (i.e., the questions were aimed to find out the status of the condition). This is an important point, as when following up after the non-urgent PED visit, or upon seeing the caregiver at a subsequent well visit, the PCPs in this study did not indicate to the caregivers that they disagreed with this particular non-urgent PED visit.

A couple of caregivers mentioned that the doctor's office contacted them after a PED visit to initiate follow up. The PCPs indicated that they most often discussed the use of the PED in the context of a new patient introduction. The PCPs also indicated that if they see a pattern of over-use of the PED by a particular caregiver, they will address it with him or her. Said one doctor:

*"I usually try to further educate that this really didn't need to go there. When patients continuously abuse the service of the ER, there are times I would call them actually and say we really could do better by seeing you in the office for this stuff."<sup>21</sup>*

The PCPs also offered that a lack of engagement about whether certain PED visits in the past were warranted could be due to some caregivers not following up with them until the child(ren) need shots or immunizations.

The only intervention that the PCPs offered to prevent use of the PED in a potentially non-urgent situation was for the caregiver to contact the patient's PCP initially; yet, another finding in the study demonstrates that when the primary care office is contacted, there is still a sizeable chance that the caregiver will present their child to the PED for non-urgent care.

There were enough examples of caregivers who gave their PCPs a high quality of care rating, but did not consult them prior to the PED visit, for this association to not be conclusive.

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<sup>21</sup> Confidential interview by author. Milwaukee, WI, date unknown.

In these few cases, the caregivers thought that the PED had something that their child needed that the PCP could not provide, such as a particular treatment or type of test. Examples of these cases included diarrhea, a lip laceration, ear infection, and pink eye.

Previous research has pointed to convenience as a factor in this increasingly common practice, though there is not much support for this assertion in this study's findings. None of the caregivers used language that indicated they were making a decision about whether to visit the PED based on what option was most convenient for them. A few caregivers cited their work hours as a consideration, but none singled it out as a decisive criterion. In fact, the time spent by caregivers waiting at the emergency department was sometimes comparable or greater in length to that which they described as the waiting time for a primary care appointment. In addition, a trip to the PED sometimes meant that they had to make arrangements for child care for their other children.

#### ***5. Caregivers apply a broad utility to the emergency department.***

Caregivers in this study said that use of the emergency room is limited to strict emergencies, but their actions suggest that they evaluate each situation separately. The caregivers in this study were easily able to identify what types of conditions are true emergencies, most often using "textbook" examples, including trauma injuries, fractures, persistent breathing abnormalities, etc., though there was a disconnect between a demonstrated knowledge of what conditions belong in an emergency setting and the non-urgent condition for which they presented their child(ren) in an emergency room. This disconnect was evident in many of the caregivers' descriptions of what they consider emergencies, especially when the options are to contact the PCP after hours or visit the PED. If a caregiver does not have experience with a specific condition, the condition is inherently more serious because of their

lack of knowledge, and he or she is less likely to engage in “parental triage” prior to pursuing medical care.

*“Usually it is just for emergencies. I don't go there just if they got a cold. I am very thankful that it is there for things that can happen after office hours and I probably just would rather go if something happens if it is after office hours rather than wait until the next day. If I think it is something serious, then I am just going to go. I guess if it is something that I can take care of during the day and it wasn't that serious, I would just go to there regular doctor, but if it was something that happened after office hours or I thought was very more concerning, then I would go to Children's [PED].”<sup>22</sup>*

When asked to reflect on whether the situation being examined in the interview was a true emergency, many caregivers acknowledged that they could have done something different or that it was not a true emergency. These caregivers also expressed that in the timeframe in which they were considering what care was needed for their children created a sense of urgency that made it seem like an emergency.

Those caregivers who did believe that their children's cases were emergencies cited the possibility of the situation worsening as the decisive criterion for bringing their children into the PED. Caregivers expressed that they were not willing to take a chance that the situation could be more severe if they waited to address it.

The caregivers who did not consult with their child's primary care physician before taking their child to the PED were asked whether the PCP could have done anything to deter them from going—most said there was not:

*“Because the way she was screaming, it told me right away there is something wrong and get her checked out immediately. If she would have said, oh stay at home maybe it's because this or that or the other, no, I still would have taken her somewhere.”*

In addition, the caregivers in this study consistently expressed a high value of the care that is provided in emergency departments irrespective of their level of satisfaction with their

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<sup>22</sup> Confidential interview by author. Milwaukee, WI, 30 September 2008.

children's PCPs. The PED was widely viewed by caregivers as equipped to handle any situation, no matter how severe, as its staff has immediate access to sophisticated technology and prescription medicine. Caregivers also see PED physicians and auxiliary staff as better trained and more experienced than primary care physicians and staff:

*"I mean, its some things that a primary care can do, but at an ER you're going to get it all because they got everybody all staffed for whatever you need."*<sup>23</sup>

Some caregivers had to balance the expertise and equipment at the PED with the familiarity of their primary doctors. These caregivers understood that continuity was important and generally gave their PCPs high quality of care ratings, but they also felt that some of the differences between the two resources are set up to direct certain conditions to the PED. For instance, if a caregiver believes that his or her child needs an x-ray for a certain condition, there is not much reason to contact the PCP if the caregiver knows that the primary care facility does not have an x-ray machine, no matter how much trust he or she has in the PCP.

*"Well, like, the doctor's office they don't do x-rays and stuff like that and I end up going there [the emergency department] anyway. At the emergency room it is not his doctor, so he is not familiar with that, you know what I am saying. So, I wouldn't say one is better, but at the emergency room there is not that personal bond that he has with those doctors. If I go to the doctor's office, they don't do x-rays, they don't do like certain tests. They don't offer that, so that leaves me no choice but to go to the emergency department."*<sup>24</sup>

***6. Communication between primary care and the pediatric emergency department was not identified as a problem.***

The PCPs in this study were overall satisfied with the level of feedback that is received by the Children's Hospital of Wisconsin PED after one of their patients is seen there, which is most typically in the form of paperwork received within a week. Only one PCP expressed dissatisfaction with the communication between doctors and the PED. They noted that verbal

<sup>23</sup> Confidential interview by author. Milwaukee, WI, 6 November 2008.

<sup>24</sup> Confidential interview by secondary researcher. Milwaukee, WI, date unknown.

communication between them and the PED staff is not necessary unless it is likely that the patient must be admitted to the hospital. There were no cases in this study in which the PCP and PED interacted before the PED visit pertinent to the study.

One doctor said that there was a time when PCPs would call for every patient they referred to the PED, but expressed that this did not seem to enhance continuity for non-admission PED visits:

*“We used to do it, but it didn't matter if we called. And we saw they were coming anyway and we had enough times when we would call and say, ‘Please call us when they leave,’ and it never happened. And they never got the note of all the stuff going on, so it probably got to the point where we're like, ‘Yes, just go. We know Children's knows what to do, but call us if there's a problem.’”*

In fact, when it came to follow-up to the PED visit, caregivers had a perception that their PCP and the PED staff communicated the necessary information about the visit. This was well supported, as almost all of the caregivers who followed up with their PCPs said that the doctor knew and asked about the PED visit. This perception adds to caregivers' beliefs that that the PED has a broader utility than just emergency medical care. If the two providers communicate well, there is not a clear incentive to direct as much communication as possible to the child's primary care physician for fear of fragmented communication.

#### ***7. Satisfaction with primary care doctor was not a significant factor.***

In purely quantitative terms, ten of the 15 caregivers (66%) in this study who gave their child's PCP a high quality of care (QOC) score on the pre-interview survey contacted the PCP before they went into the PED, compared to four out of 11 caregivers (36%) who gave their child's PCP a low QOC score who did contact the PCP before they went to the PED.

Yet, the data does not conclusively connect the low quality score from the survey to the non-urgent PED visit examined in this study; nor does the data connect caregivers' accounts of dissatisfaction with their child's PCP in the interview to the non-urgent PED visit examined in this study.

This finding suggests that the actual reasons for the PED visits in this study were not because of caregivers' dissatisfaction with their children's PCPs, but because of a lack of confidence in the option of primary care at the time care was needed. This lack of confidence could be affected by a general dissatisfaction with the PCP or wait times at the primary office, but neither was ever a decisive criterion for the PED visit examined in this study.

One caregiver who gave his child's PCP a low QOC score, who did not call the PCP prior to the PED visit, reported a large primary care bill combined with a (then) current lack of insurance as the actual reason that he opted to present his daughter to the PED.

*Interviewer: "And what did you do right when you first noticed it. Was there anything you tried to do on your own?"*

*Caregiver: No, we just brought her in."*

*Interviewer: "You brought her in. Did you call anybody?"*

*Caregiver: "No, I don't think so."*

*Interviewer: "Not her primary care doctor?"*

*Caregiver: "No, because our insurance ran out, so we didn't want to go to him and then have her. We don't want to have to own any money for you know because we didn't have any insurance."<sup>25</sup>*

One caregiver who reported a low QOC rating for his children's PCP and did not contact his children's doctor before the PED visit in question had no complaints about the doctor in the interview. This caregiver saw the PED as being able to solve a problem that did not need to involve his children's PCP.

*Interviewer: "Are you satisfied with you primary care doctor"*

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<sup>25</sup> Confidential interview by author. Milwaukee, WI, 26 October 2008.

*Caregiver: "Yes. Yes. I mean you know we normally call her she normally say you can try this, this or this."*

*Interviewer: "Okay."*

*Caregiver: "And if it didn't work to call her back. There is just some cases we just avoid going that route. We just go and go to the ER."*

*Interviewer: "And you do that because?"*

*Caregiver: "Just, I mean, just because sometimes it is just like the first logic that comes."<sup>26</sup>*

Another caregiver did not even have a pediatrician at the time of the PED visit in question because he had retired a year earlier and she did not have insurance to visit a new pediatrician, though she gave a low rating to her child's primary doctor on the survey:

*Caregiver: "I had a pediatrician, but he retired about a year ago. We make too much money now for state insurance. We don't have insurance so I go to the emergency room. You know how the library has the health clinic, that is where I take them for shots, but as of January, they will be on my husband's insurance."*

*Interviewer: "So you stated your pediatrician retired. You didn't really have a doctor at the time you brought your daughter to the ED?"*

*Caregiver: "No, we are just waiting. As of October, we applied for benefits. On January 1st we will have insurance."<sup>27</sup>*

Another caregiver whose son had asthma was generally satisfied with her doctor's care for her child, expressing concerns instead about the wait time and having to go through a routine to get the medicine she knows her son needs (steroids). Even though she gave her son's primary doctor a low quality rating, she contacted the doctor's office and performed a number of home remedies before going into the PED for the visit examined in the study:

*Interviewer: "Okay, so what were the steps, I think you put down and you kind of answered this, but what were the steps that led you to come to the emergency department for care?"*

*Caregiver: "I called the doctor's office around 11 that morning. I explained that his nebulizer at home was not helping. I called the doctor's office to see if I could bring him in*

<sup>26</sup> Confidential interview by author. Milwaukee, WI, 6 November 2008.

<sup>27</sup> Confidential interview by author. Milwaukee, WI, 29 November 29, 2007.

*and they had it where you call and your child is sick, but they say you can come in but there are people with appointments first. If somebody does not show up or they have a minute to slide you in that is when you would be seen. They said he was really overbooked that day. If I came there was no way I would be seen and none of the other doctors would be able to see him in the office, so it would be best to go to Children's Hospital.”<sup>28</sup>*

#### **8. Primary care access was not identified as a significant problem.**

Lack of access or timely access to primary care is identified as a reason for non-urgent PED visits in most quantitative studies on this topic. Indeed, a few caregivers in this study expressed clear frustration about access to primary pediatric care. One caregiver was frustrated with the number of changes she saw:

*“I go to [location of PCP office, omitted for discretion] and they changed a lot of things. They [PCP] have been in a lot of different places and then they changed where the clinic is located and every time they change the clinic I think I get less and less care for my kids.”<sup>29</sup>*

Half of the caregivers in this study contacted their PCP or another primary care staff member, such as a nurse, prior to presenting their child to the PED for non-urgent care. The caregivers who did not try to contact their PCP expressed that they knew that there was a process by which they could contact their primary care doctor after hours, and most knew what that process entailed.

This understanding by caregivers was supported by the PCPs in this study, who were confident that their practices and policies for during and after-hours care were accessible and of sufficient quality to meet the needs of their patient populations. They recited their policies and emphasized their availability after hours, most typically via an on-call rotation with a partner or partners in the practice. They expressed that non-urgent pediatric visits to the PED were an inevitable occurrence for some families based on some caregivers' income, level of education, level of stress, and/or inflexible or busy schedules.

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<sup>28</sup> Confidential interview by author. Milwaukee, WI, date unknown.

<sup>29</sup> Confidential interview by secondary researcher. Milwaukee, WI, date unknown.

**9. Liability is not a major factor in PCP referrals to the emergency department.**

A few PCPs expressed that concerns about liability as it relates to medical malpractice have increased among physicians over the years and one doctor said that there is a greater need for paperwork to be completed than there once was. Overall, the physicians did not consider liability in the legal sense when deciding whether to refer caregivers to the ED.

**10. Increased caregiver education may result in fewer non-urgent PED visits.**

Most of the caregivers felt that their children's doctors should be able to assist them with issues that they feel are beyond their control or with which they are not familiar in addition to performing check-ups and administering immunizations. One mother talked about how the education she received at the time her son was born and her doctor's responsiveness to questions impacts her ability to care for her children:

*“And then with the baby, we had a lot of education. He was born at [name of hospital] and I think they really did a good job, the nurses and the doctors, about really helping us know what to watch for, because I mean I had to take this baby home that had jaundice and had a congenital heart problem and it was not going to be repaired. He went right from the hospital right home. He didn't go to [name of hospital] first or anything. So you know, I felt like I had enough education and I felt like I could call, but I did call the doctor's office with questions and those kind of things. So I think that helps to make me a better, you know, feel comfortable with caring for my kids. I think a doctor's office is a big part of that.”*

A few PCPs mentioned that they handed out literature on common conditions. Most of the PCPs said that they talked to caregivers during well visits about what to expect at certain stages as a way to decrease anxiety, especially at the two-month check-up, and mentioned that anticipatory guidance works well for certain conditions like fever or earaches and for topics like safety and nutrition.

Though this type of education and guidance occur, the PCPs did not widely believe that increased patient education or “anticipatory guidance” about specific conditions would resonate

with caregivers when the caregiver is in a stressful situation, as they believe this information is either not easily retrievable or not satisfactory to the caregiver at that time. More emphasis was placed on the strength of the relationship between the caregiver and the doctor as a determining factor to continuity. Some doctors mentioned a mentality shift in health care from patient-centered to treatment-centered:

*"I think society has changed all the way around, and I am very pleased to say that at least in our residency program, when I walk into Children's Hospital, I see a little bit more lately of the residents being taught the compassion and the relationship aspect of medicine versus the testing and diagnoses and "I have 11 patients, so I don't have time for you. I'm very pleased to see that we are going back to some of the basic roots of medicine is not just a prescription and a diagnosis, that we can have a bigger, better impact on our patient population."*<sup>30</sup>

#### **Section Four: Recommendations**

Based on the generalizability of the findings in this study, and an analysis of recommendations and suggested research areas offered by other studies on this topic, the following six recommendations are potentially effective interventions:

***1. Emphasis by physicians on communication between primary care physicians (or staff) and caregivers immediately post-delivery.***

The findings in this study suggest that early communication about the importance of continuity of care and selection of a pediatrician will have a long-lasting impact on the caregiver. This communication is likely to decrease the anxiety of the primary caregiver about common conditions, increase confidence about his or her ability to triage a medical situation at home or over the phone with the pediatrician, and increase the caregiver's trust in the pediatrician.

Though it might be difficult to coordinate a meeting between a biological mother who intends to be a caregiver to the child and a pediatrician immediately post-delivery, it would be beneficial for biological mothers to have a personal parent orientation, which could include

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<sup>30</sup> Confidential interview by author. Milwaukee, WI, 8 December 2008.

common health concerns for newborns, information about the first check up, pediatricians in the hospital's network (if the caregiver needs a recommendation), methods to gain access to the pediatrician for guidance or a sick visit prior to the first post-delivery check-up, and a brief conversation about the value of continuity. For adoptive parents of a newborn, this same type of education and support would be beneficial.

***2. Incentives for primary care use, including the elimination of any cost for primary care for persons who are at or below a certain level of income.***

Primary care is less expensive than care delivered in an emergency department and has proven to produce better long-term health outcomes. This study suggests some connection between lack of health insurance and government-sponsored insurance and a lower level of confidence in primary care by a caregiver, increasing the chances that the caregiver will decide that the PED is the best option for care in a situation in which emergency care is not needed. In order to incentivize increased communication with primary care providers, there should be no cost for primary care to caregivers who are considered low-income by the U.S. Department of Housing and Urban Development (HUD) standards.

***3. Extended primary care hours and longer well visits.***

There were some visits to the PED in this study, such as a minor cut on the hand from shattered glass, that were made simply because it was after hours for the primary care physician and the caregiver did not wish to delay presentation of the child to a medical provider. While extended primary care hours do not guarantee that the child will be seen by his or her regular doctor, a practice typically provides access to all physicians in the practice at the office, so the patient's medical records and his or her regular doctor would be more accessible in this setting as compared to a PED. For chronic conditions like asthma that are typically not acute, but can

become acute if untreated, the value of continuity is critical.

One substantial challenge to this proposal is that the concept of extended primary care hours fundamentally changes a primary doctor's schedule, which is typically a first-shift with "on call" rotation responsibilities on nights and weekends.

***4. Mandatory 100% reimbursements to providers from government programs for primary health care.***

One of the primary reasons that some caregivers experience access problems relates to an imbalance between the costs associated with care and the reimbursements from government insurance programs like Medicaid. Primary care providers in this study who served a largely low-income population made note of the disparity between government and commercial reimbursements and the overall impact it has on services. For instance, the office may not be able to staff as many same day sick visit slots as are needed or they may spend less time in well visits to see more patients in a day.

In order to close this disparity, there should be mandatory 100% reimbursements to providers from government programs for primary health care. The upfront costs associated with this increase would be offset by a decrease in non-urgent PED visits, lack of duplication in tests and treatment, and an overall healthy patient population, as preventative care decreases the need for acute and chronic care.

***5. Student loan forgiveness for primary care physicians who work in an underserved, economically distressed area for a minimum length of time.***

The shortage of primary doctors is nearing a crisis point in the United States. In other professions like education and legal services in which there is an unmet need for services in economically distressed areas, there are programs that forgive student loans in exchange for their

service. Pediatricians who work in underserved, economically distressed areas should receive a level of tuition forgiveness each year that is roughly equal to the difference between their salaries and a specialist's salary, as long as they commit to a minimum length of service.

***6. A federal public policy change that does not require medical attention in PEDs for conditions that are triaged at a level 4 or 5.***

The health care industry must work actively to change the perception of the emergency department as an option that has first-rate medical staff and technology that is always accessible, and is free if one cannot pay. This perception was clear among caregivers of all backgrounds in this study and contributes to the broader utility that they applied to the PED. The *Emergency Medicine Treatment and Active Labor Act* should be amended so that when a condition is designated as a level 4 or 5 according to the Emergency Severity Index, it is not required that PEDs treat the patient. Instead, they should be required to guarantee access, within a reasonable length of time for the condition, to the child's medical home or to a provider in the hospital's network if the caregiver does not have a medical home.

This policy mandate would require real-time coordination between the PED and primary care providers in the form of scheduling, which has fiscal implications for private hospitals and government oversight, but would help to diminish the notion that care will be delivered and/or medicine prescribed in the PED no matter what the condition. The scheduling of next-day appointments by the PED will result in some "no shows" to the primary care appointments, as the condition for which the child was presented may be resolved in the interim or the caregiver may be assured at the PED that the condition is stable and will not worsen. The upfront costs associated with this reform are likely to translate into a net savings over time, as the need for PED resources will likely be reduced.

Another potential challenge to this reform is that doctors in the PED will not turn away patients that do need some level of care, even if it is not an emergency, because of their code of ethics, especially if there is not another patient waiting at the time and the caregiver had already committed his or her time to seek the medical care.

***7. Mandatory face-to-face conference between a PED non-physician staff member and the caregiver when a child is presented to the PED for non-urgent care.***

If there is not enough political will to affect the public policy change outlined above, it is critical that a caregiver who has presented his or her child to the PED for non-urgent care debrief and better understand what he or she might have been able to do prior to this visit. This immediate intervention would relieve the PCPs from having to catch non-urgent PED visits in paperwork, assuming there is paperwork, especially if the visit was not recent. This process would become a factor in the caregiver's evaluation of options and may be another incentive to practice thorough parental triage and/or contact the PCP.

A congruent effort to decrease non-urgent PED visits is to revisit the use of community outreach resources. Considering the pervasive knowledge about the 24-hour availability of free emergency care, and the perception that the doctors and the technology are better than those that are available at a primary care facility, it is not necessary for emergency departments in pediatric hospital to advertise. Instead, they could use the cost savings from advertising to disseminate printed and broadcasted messages that promote continuity of care and strong relationships with pediatricians.

**Section Five: Implications for Further Research**

This study is incomplete or inconclusive in several areas. It is not clear whether there is a way to reify the specific factors in an individual caregiver's decision-making process regarding

PED visits. While it is possible to target certain factors to try to change the outcome, such as providing increased caregiver education, the actual impact of that single factor would be difficult to measure unless the subjects' actions are controlled. Limiting access to certain forms of pediatric care raises a concern about parceling health care services to children in the interest of researching the decision-making of caregivers and doctors.

It is also not clear that there are specific breakdown points between caregivers and primary care physicians in this study, which led to the non-urgent PED visits. This research question is biased in that it assumes that a non-urgent PED visit is incorrect and that there must be a way to correct it. This thought process effectively blames the caregiver, the PCP, or both for this occurrence. Rather than focus on breakdown points, additional research should look at how various incentives can be used to strengthen caregivers' inclination to contact their primary care doctor for each situation. Incentives can also be used to broaden primary care to include other services, such as behavioral guidance provided by ad hoc staff, and expanded access, by building a more robust medical home system. The cost savings from a decrease in non-urgent PED visits could translate into financial incentives for both caregivers and PCPs.

Areas that do not seem to have a significant impact on non-urgent PED visits, and from which we may not benefit from additional research, include 1) communication between primary care staff and the pediatric emergency department; 2) liability; and, surprisingly, 3) satisfaction with the primary care physician.

If other case studies produce similar findings, areas of research that need more attention include 1) the longitudinal impact of post-delivery caregiver education; 2) increased anticipatory guidance as a primary care service (though not necessarily delivered by the primary doctor); and 3) the impact of pediatric medical homes for all children.

This study represents a turning point in this area of research in which the key stakeholders should accept that a caregiver's decision whether or not to present a child to the pediatric emergency department for non-urgent care cannot be predicted by one or more SES characteristics, race, age, or the number of caregivers involved in the decision. Likewise, the reasons for non-urgent PED visits do not indicate problems with the system; rather, they indicate a redefinition of emergency care that has emerged largely because the health care system has changed since the advent of the emergency room as a safety net.

If and to the extent that this occurrence is problematic, various interventions can perhaps reduce the number of occurrences, but no one successful intervention or even a combination of them, will change the social environment in which caregivers and primary care physicians make decisions about medical care for children.

**APPENDIX B: Quality of Care (QOC) Survey Information**

| Caregiver | Gender | QOC* | PCP<br>Contact | Insurance      | Child's<br>Race | Condition         |
|-----------|--------|------|----------------|----------------|-----------------|-------------------|
| A         | F      | HH   | Called         | Title 19-UHC   | Black           | Vomiting          |
| B         | F      | HH   | <i>No Call</i> | Network Health | Black           | Pink Eye          |
| C         | F      | HH   | Called         | WEA            | Asian           | Trouble breathing |
| D         | F      | LL   | Called         | MHS            | Mixed           | Asthma            |
| E         | F      | LL   | <i>No Call</i> | MHS            | Black           | Minor trauma      |
| F         | F      | LL   | Called         | Managed health | Bl/Wh           | Nosebleed         |
| G         | F      | LL   | Called         | HMO            | Black           | Ear infection     |
| H         | F      | HL   | Called         | MHS            | Black           | Asthma issues     |
| I         | F      | LH   | <i>No Call</i> | None           | White           | Rash              |
| J         | F      | HL   | <i>No Call</i> | United         | Bl/Wh           | Asthma            |
| K         | M      | HH   | <i>No Call</i> | UHC            | White           | Ear infection     |
| L         | F      | HL   | Called         | UHC-State      | White           | Bump on head      |
| M         | F      | HH   | <i>No Call</i> | Cigna          | White           | Lip laceration    |
| N         | M      | HH   | Called         | UHC            | Black           | Gum infection     |

|   |   |    |                |              |                  |                              |
|---|---|----|----------------|--------------|------------------|------------------------------|
| O | F | HH | Called         | UHC          | Black            | Toothache                    |
| P | F | HL | Called         | MHS          | White/<br>Latino | Viral syndrome,<br>fever     |
| Q | F | HL | Called         | Anthem       | White            | Bump on head                 |
| R | F | LH | <i>No Call</i> | Title 19     | Black            | Fever, vomiting,<br>diarrhea |
| S | F | HH | Called         | Aetna        | White            | Cut hand                     |
| T | M | HH | Called         | Badger Care  | Black            | Ear infection                |
| U | F | HH | <i>No Call</i> | Title 19     | Black            | Diarrhea                     |
| V | M | LL | <i>No Call</i> | None         | Mixed            | Trouble breathing            |
| W | F | LL | <i>No Call</i> | UHC          | Black            | Vomiting, asthma             |
| X | M | LL | <i>No Call</i> | Forward Care | Black            | Rash                         |
| Y | F | LH | <i>No Call</i> | Title 19     | Black            | Ear infection                |
| Z | F | LL | Called         | UHC          | Black            | Fever,<br>dehydration        |

### \*Key to QOC Score

#### **First letter: Family-centeredness**

(“Does your physician listen to you and explain information clearly?”; “Does he/she spend enough time with you and show you respect?” Etc.)

#### **Second letter: Timeliness**

(“Did you receive an appointment as soon as you thought was necessary?”; “Were your questions answered as quickly as needed?” Etc.)