

EMERGENCY

STUDENT CONTRIBUTIONS

Targeting National Emergency Department Overuse: A Case for Primary Care, Financial Incentives, and Community Awareness

By Christina A. Nguyen, Jenny A. Shih*, Katerina V. Lin*,
Oludamilola A. Aladesanmi*

** These authors contributed equally.*

Patients seek care in the emergency department (ED) for many reasons, including non-urgent conditions that could be treated in a primary care physician's (PCP) office or alternative health facility. Convenience, need-blindness, and resourcefulness draw patients towards the ED, and lead to ED overuse. In this article, we outline a comprehensive and integrated approach that includes specific solutions and quality improvements to overcome the excessive use of EDs for non-urgent conditions. We target three critical components of the healthcare system: 1) hospitals and other physician groups, 2) insurance companies, and 3) patients. Our recommendations include expanding access to primary care, offering financial incentives for both patients and physicians to reduce unnecessary ED visits, and fostering patient awareness of alternative health care options through community health workers (CHWs) and mobile worksite programs.

OVER THE LAST FEW YEARS, the number of emergency department (ED) visits has increased by 30% from about 96 million visits in 1995 to 115 million in 2005 (Figure 1).¹ Despite the increase in ED visits, the number of hospitals with operating EDs has declined by 8%.¹ Increasing ED use can be largely attributed to a “push” factor drawing patients away from primary care centers and a “pull” factor attracting them to emergency services. 45% of patients cite access barriers to primary care as their reason for using the ED, but only 13% of patients have conditions that require

the ED.² However, primary care centers often lack timely appointments as well as after-hours care, and as a result patients experience poor coordination of care in contrast to care received through EDs. This aspect can especially become problematic when the patients have chronic conditions.

Consequently, the difficulty of receiving care at primary care centers and the ability to receive immediate care at hospital EDs fuels the increased demand for emergency care services. Factors like convenience, need-blindness, and resourcefulness attract patients to EDs. However, an excess of

patients coming to the ED with non-urgent conditions makes it difficult for hospitals to achieve maximum efficiency and provide the best quality of care possible. Overcrowding creates longer waiting times, decreases physician productivity and efficiency, and eventually contributes to the increasing risk for poor health outcomes.³ Physicians cut down the time they spend with each patient and in some cases have to divert incoming patients to alternative hospitals.⁴ Furthermore, the overuse of ED places an additional burden on the overtaxed health care system, and contribute to the \$38 billion worth of wasteful health care spending every year.⁵

In this article, we evaluate current interventions to address the problem and investigate the causes of the national problem of ED overuse. We then suggest a comprehensive and integrated approach that includes specific solutions and quality improvements to overcome the excessive use of EDs for non-urgent conditions.

Current Interventions

The literature describes several interventions that have been implemented in recent years to address the issue of ED overuse. Efforts to increase capacity of non-ED settings, such as mobile worksite health clinics, have had mixed results.^{2,6-7} Increased access to non-urgent centers and the use of managed care, in which the patient agrees to visit only certain physicians, have led to reductions in ED use; however, the extent to which these policies translate into better patient outcomes and usage of appropriate care centers for non-urgent conditions is unknown.⁶ Additionally, several studies have suggested that patient awareness

efforts through informational booklets and in-person education sessions may lead to better health outcomes, with no significant adverse events.^{6,8} However, there is little information available regarding the impact of patient awareness on the ability of seeking appropriate care.

On the other hand, by limiting the services that are covered by insurance, insurance companies may successfully decrease the demand for certain medical services, such as the use of ED. The 1970s RAND health information exchange (HIE) experiment found that more generous health insurance is associated with increased medical use, including that of EDs. For example, the expansion of Medicaid in Oregon led to a 40% increase in overall ED use over an 18-month period.⁹ To take advantage of the influence of insurance on demand for care, insurance companies have implemented incentives to motivate patients to limit non-urgent ED visits. Data show that such incentives can successfully help prevent ED overuse.⁶

Much of the literature addresses the problems and responsibilities attributed to health systems and providers, but fails to elaborate on patient responsibilities. Moreover, there is a lack of literature that evaluates the effectiveness of a combination of efforts, especially in light of better quality of care and health outcomes. To address the complexity of the ED overuse problem, we propose a multi-pronged approach that targets three critical components of the healthcare system: 1) hospitals and other physician groups, 2) insurance companies, and 3) patients.

Expanding Access to Primary Care

Healthcare providers should expand access to primary care in existing primary care centers and alternative facilities, such as urgent care centers. These can provide healthcare for the non-life-threatening conditions for which patients sometimes come to the ED. To improve access to existing primary care services, we propose the expansion of healthcare homes, clinic hours, and alternative care clinics.

First, we propose caring for patients within healthcare home environments, which can reduce the need for these patients to seek care in the ED. These environments

are patient-centered medical homes that allow health care professionals to interact directly with the patients to foster stronger doctor-patient relationships. These homes would offer comprehensive care services and be able to coordinate healthcare services across specialties. Piloted studies of these homes have shown that this system leads to reductions in ED use by 37%.² Increasing the number of these patient-centered homes and implementing team-based care can improve medical care can emphasize care coordination as well as prevent patients from overusing the ED.

Second, we suggest that primary care centers extend clinic hours. Many patients flock to the ED because primary care offices are not open during late hours or weekends. By offering extended hours, primary care physicians (PCPs) would not only be able to reach a greater number of patients, but also reduce the wait time between scheduling appointments. This is especially important for patients with chronic conditions who need continuous care that is only possible through their PCPs instead of case-specific visits to the ED.

Third, we propose an expansion of alternative care clinics (Figure 2), such as

urgent care centers and retail health clinics. Urgent care centers and retail health clinics provide alternative ways for patients who need quick care to see PCPs. They provide walk-in care for acute illness and injury care, and often provide quicker care than the ED.^{10,11} Moreover, the cost of a visit is the same, or even lower than a regular physician's appointment or ED visit.¹²⁻¹³ Urgent care clinics have been shown to reduce ED overuse by 48%, a statistic that demonstrates their potential to divert patients from overburdened EDs.¹⁴

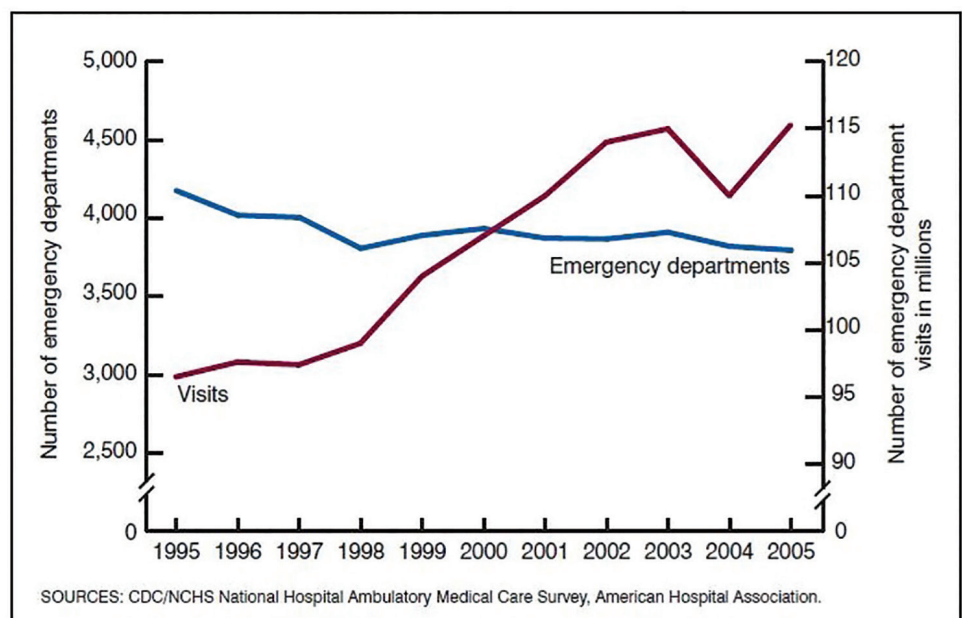
Aligning Financial Incentives

One of the biggest barriers to solving the ED issue is misalignment of financial incentives between patients, providers, and insurance companies. In conjunction with hospital efforts to increase access to primary care services, insurance companies should offer financial incentives for both patients and physicians to reduce unnecessary ED visits.

Currently, hospitals and providers are not incentivized to address the issue of ED overuse. First, hospitals want to take in as many patients as possible, so reducing the number of patients' ED visits conflicts with their incentive to maximize income. Secondly, hospitals typically make more money by admitting elective patients who are often insured and who come for well-reimbursed surgeries, rather than patients who have variable insurance statuses into the ED. Third, hospitals have a legal

One of the biggest barriers to solving the ED issue is misalignment of financial incentives between patients, providers, and insurance companies.

Figure 1. Trends in numbers of emergency departments and related visits, United States, 1995-2005



Source: Navar et al., 2007

obligation according to the Emergency Medical Treatment and Active Labor Act (EMTALA) to provide necessary care to all patients who walk into the ED.¹⁵ As a result of these factors, an overcrowded ED makes it more likely

that patients who are uninsured or have non-urgent concerns will leave the ED before getting treated.

We propose that insurance companies instate new financial incentives for both the providers and patients so that these incentives align with reductions in ED use. They should incentivize the use of alternative care by rewarding patients who utilize urgent care clinics and other alternative care centers with lower co-pays. A system that rewards patients rather than penalizes them can potentially decrease the demand for ED services. Also, in addition to creating patient financial incentives, insurance companies should also instate payment reform for providers. Performance measures such as patient ED utilization or appointment wait times could be used to fuel a pay-for-performance or global payment model. Providers would be incentivized to achieve their performance standards and to reduce unnecessary use of ED in order to

maximize their income.

Fostering Patient Awareness

Many patients overestimate the severity of

Efficient change must come about by first getting the population to understand the urgency of fixing a universal threat to their everyday health.

their health problems and consequently seek care at an ED when less expensive alternative care is appropriate.¹⁶ Patient education could reduce ED visits by making patients more aware of alternative health centers and advising them to seek medical care in the ED only when necessary.

To implement patient education and outreach, we advocate the use of community health workers (CHWs), trained community members who are able to provide informal health-related services, to bridge the gap between the private and public sectors of health.¹⁷ CHWs and volunteers would reach out to members of the community through various events and social gatherings that make information about preventive services and available care services more relatable and accessible. For example, some would offer pamphlets at gatherings after church services with information about averting common illnesses, while others would go door-to-door in sectors of certain neighborhoods

to contact a representative sample of the community. As such, educating a few people would optimally create a network of communication through neighbors.

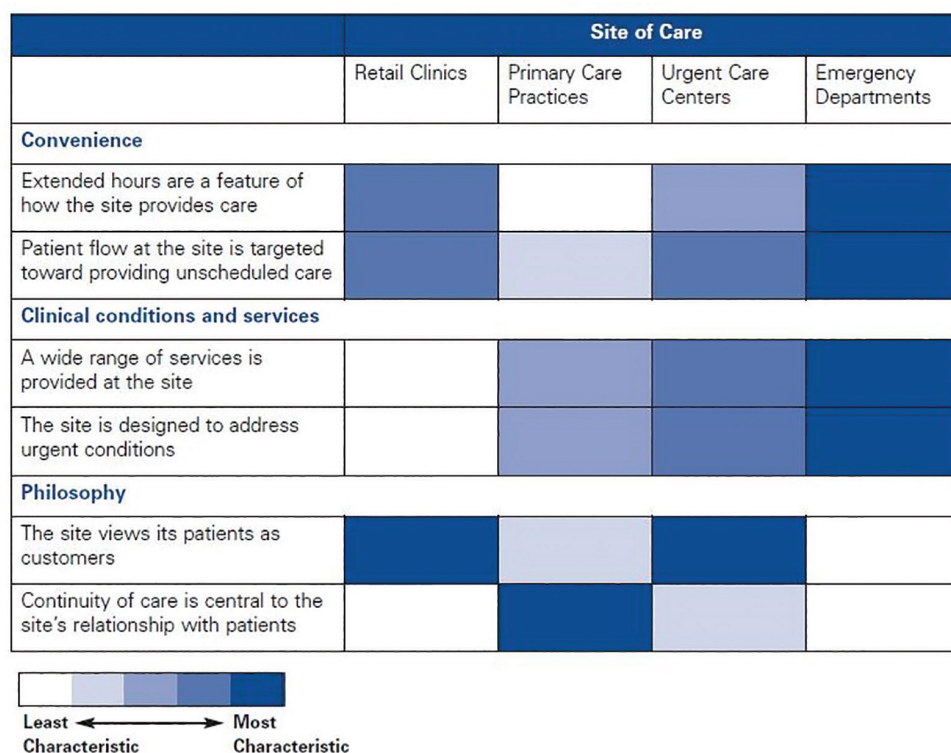
CHWs would also focus on targeting minority or region-specific populations within their communities. For example, if Latinos in a certain area are more likely to overuse the ED, then the volunteers could focus on being able to provide verbal or written information in Spanish, while taking note of different medical beliefs that their culture might have. This will make our approach more culturally, linguistically, and contextually appropriate for target populations.¹⁸ In specific neighborhoods such as low-income urban and rural populations where there is extremely low access to primary care, we would furthermore suggest the implementation of mobile worksite health programs to offer preventive care services.¹⁹ Preventive care services may include essential medical screenings—including tests for hypertension, cholesterol, blood glucose, HIV/AIDS, and Body Mass Index (BMI) assessment—and education on risks, symptoms, nutrition, and self-care.¹⁹

Discussion

Implementing our solutions successfully involves being able to motivate each player in the American healthcare system to contribute to change. Leading others to change, however, is not always easy. Patients are often unwilling to change their habits after having gone through numerous years of relatively healthy lives. Therefore, efficient change must come about by first getting the population to understand the urgency of fixing a universal threat to their everyday health. Good ideas come into fruition after understanding people's norms and then changing them through active people-to-people interactions; this involves a "grassroots" approach from the community, in which everyone is aware of the perceived value of a change and can continue to educate one another.²⁰ Communities thus have the ability to form networks in which health behaviors and connections can spread.²¹⁻²³

This approach of tackling the ED overuse as a community problem can help address the barrier of mobilizing changes in patient behavior. In order to draw patients away from seeking non-urgent care in the ED, we must educate patients to utilize

Figure 2. Characteristics of Ambulatory Care Centers, by Type



Source: California Health Care Foundation, 2007

Our three-pronged approach for addressing the ED overuse problem aims to improve the quality of care for patients in both urgent and non-urgent situations.

primary and alternative care centers and adopt preventive care practices. Since patients spend a disproportionate amount of time managing their health outside of professional healthcare providers, education and patient awareness tactics would take a step closer towards the ideal of having a “flipped” healthcare system, in which patients are the main drivers behind their own healthcare.²⁴

Ultimately, our three-pronged approach for addressing the ED overuse problem aims to improve the quality of care for patients in both urgent and non-urgent situations. Patients with urgent conditions can receive more timely and efficient care in the ED, while those with non-urgent conditions can find their needs met more appropriately at alternative sites. Reductions in overcrowded EDs will allow health professionals to devote more time to each patient and provide more patient-centered care. Increasing patient awareness and services by instituting mobile health clinics can lead to screening minority groups and enhancing the accessibility of populations that may have difficulty receiving primary care services. Reduced wait times in the ED will also provide a less

stressful atmosphere conducive to safer and more effective practices.

The problem of ED overuse in the US is a national emergency that needs to be addressed immediately. New policies must be implemented to assure that emergency



Christina Nguyen is a senior at Harvard College concentrating in Sociology, with a secondary in Global Health and Health Policy.



Katerina Lin is a senior at Harvard College concentrating in Neurobiology and pursuing a secondary in Global Health and Health Policy. Her specific health policy interests include primary health care.

rooms continue to provide the highest quality of care for those who need it the most.

Acknowledgements. We would like to thank the teaching staff of GHHP 50: The Quality of Health Care in America. We thank Dr. Rosenthal, Dr. Jha, Ashley Fryer, and Hummy Song for their teaching and advice.



Jenny Shih is a senior at Harvard College concentrating in Human Developmental and Regenerative Biology and pursuing a Secondary in Global Health and Health Policy.



Olu Damilola “Dami” Aladesanmi is a senior at Harvard College concentrating in History and Science, with a focus on Medicine and Society, and a secondary field in Global Health and Health Policy.

- Nawar EW, Niska RW, Xu J. National hospital ambulatory medical care survey: 2005 emergency department summary. *Adv Data*. 2007; 386: 1-32.
- Grumbach K, Bodenheimer T, Grundy P. The outcomes of implementing patient-centered medical home interventions: A review of the evidence on quality, access and costs from recent prospective evaluation studies. Washington, DC. Patient-Centered Prim Care Collab. 2009.
- Derlet RW, Richards JR. Overcrowding in the nation's emergency departments: complex causes and disturbing effects. *Annals of Emergency Medicine*. 1999; 35:63-8.
- Sternberg A. The overuse of America's Emergency Rooms. *Annals of Health Law*. 2011; 20:70-77.
- National Priorities Partnership (NPP), National Quality Forum. Reducing Emergency Department Overuse: A \$38 Billion Opportunity. 2010.
- Morgan SR, Chang AM, Alqatari M, Pines JM. “Non-Emergency Department Interventions to Reduce ED Utilization: A Systematic Review.” *Academic Emergency Medicine*. 2013; 20:969-985.
- Weinick RM, Bristol SJ, DesRoches CM. Urgent care centers in the U.S.: Findings from a national survey. *BMC Health Services Research* 2009; 9:79.
- McWilliams DB, Jacobson RM, Van Houten HK, Naessens JM, Ytterberg KL. A program of anticipatory guidance for the prevention of emergency department visits for ear pain. *Arch Pediatr Adolesc Med*. 2008; 162:151-6.
- Taubman SL, Allen HL, Wright BJ, Baicker K, Finkelstein AN. Medicaid increases emergency-department use: evidence from Oregon's Health Insurance Experiment. *Science*. 2014; 343:263-8.
- Yee T, Lechner AE, Boukus E. The surge in urgent care centers: emergency department alternative or costly convenience? *Health System Change*. 2013; 26:1-6.
- National Association for Ambulatory Care (NAFAC). Where do I go? The Emergency Room? Or an Urgent Care Center? 2012.
- Blue Cross Blue Shield (BCBS). Alternatives to Emergency Room Care. Immediate Medical Care: ER or Other Options? 2014.
- Urgent Care Association of America. Urgent Care Industry Information Kit. 2013.
- Merritt B, Naamon E, Morris SA. The influence of an urgent care center on the frequency of ED visits in an urban hospital setting. *Am J Emerg Med*. 2000; 18:123-125.
- Zibulewsky J. The Emergency Medical Treatment and Active Labor Act (EMTALA): what it is and what it means for physicians. *Proc (Bayl Univ Med Cent)*. 2001; 14:339-48.
- Kelly L, Birtwhistle R. Is this Problem Urgent? Attitudes in a community hospital emergency room. *Can Fam Physician*. 1993; 39:1345-1352.
- Zuvekas A, Nolan L, Tumaylle C, Griffin L. Impact of Community Health Workers on Access, Use of Services, and Patient Knowledge and Behavior. *J Amb Care Mgmt*. 1999; 22:33-44.
- Locks LM, Pandey PR, Osei AK, Spiro DS, Adhikari DP, Haselow NJ, Quinn VJ, Nielsen JN. Using formative research to design a context-specific behaviour change strategy to improve infant and young child feeding practices and nutrition in Nepal. *Matern Child Nutr*. 2013.
- The Family Van. Harvard Medical School. 2007. Available from: <http://www.familyvan.org/>.
- Gawande A. Slow Ideas. *The New Yorker*. 2013.
- Christakis NA, Fowler JH. The collective dynamics of smoking in a large social network. *New England Journal of Medicine*. 2008; 358:2249-2258.
- Christakis NA, Fowler JH. The spread of obesity in a large social network over 32 years. *New England Journal of Medicine*. 2007; 357:370-379.
- Smith KP, Christakis NA. Social networks and health. *Ann Rev Sociol*. 2008; 34:405-429.
- Bisognano M. Flipping Health Care. Global Health and Health Policy 50 Lecture 23. Harvard University. Presented April 22, 2014.