ORIGINAL RESEARCH

More than just meds: National survey of providers' perceptions of patients' social, economic, environmental, and legal needs and their effect on emergency department utilization

Lia Losonczy, MD, MPH; Dennis Hsieh, MD, JD; Chris Hahn, MD; Jahan Fahimi, MD, MPH; Harrison Alter, MD, MS

Abstract

Introduction: Emergency departments (EDs) are the safety net for millions of patients who need to access care. Many of these patients have social needs that may influence their healthcare.

Methods: We sought to understand ED providers' perceptions of health-related social issues facing their patients by conducting an online survey of emergency medicine physicians nationally. Respondents ranked patients' most common needs, which needs affected healthcare use, and interest in education on these needs. We also queried when needs are assessed and reasons they are not. Responses are reported as proportions, stratified by training level and program type; the chi-square test was used to assess differences between groups.

Results: We broadcast survey links to 168 US emergency medicine training programs, receiving 432 responses from 79 different institutions in 31 states; 45% of the respondents were residents and 49% attendings; 47% identified as academic, 28% as county, 18% as community, and 7% as mixed. Providers' ranked factors that influenced ED visits; naming lack of health insurance, homelessness, and transportation problems as several of the top non-medical needs they see in the ED. All respondents replied that they care for patients with social needs; all but two felt that social needs move patients to return to the ED. While providers consistently ask about social needs, for any specific social need the number of doctors who routinely ask ranges from 61-100% depending on need. Reasons for not asking included feeling unable to act, lack of time, and lack of knowledge. Only a small minority felt that addressing non-medical needs was not part of their job or that needs were not relevant to patients' health. Most providers (80%) would like more resources and 70% reported they would attend educational sessions if they were available. We found no difference between attendings and residents in interest in attending educational sessions or in the percentage who ask about needs. Providers from all types of institutions were equally likely to believe social needs caused patients to return and to ask about such needs.

Conclusions: This study highlights the fact that emergency department providers around the country see a large number of social needs. They identified specific needs that increase the utilization of healthcare services. These needs would more likely be addressed if greater referral resources were available.

Corresponding Author: Lia Losonczy, MD, MPH
From: Alameda County Medical Center – Highland Hospital, 1411 E. 31st Street,Oakland, CA 94602 Highland Hospital. Email: Lia.losonczy@gmail.com

Dennis Hsieh, MD, JD
Emai: Dhsieh@gmail.com

Chris Hahn, MD
Email: Chriswhahn@gmail.com

Jahan Fahimi, MD, MPH
Email: jfahimi@me.com

Harrison Alter, MD, MS
Email: halter@alamedahealthsystem.org

Submitted: 11/8/2014
Accepted: 12/21/2014
Conflict of interest: None
Peer-reviewed: Yes

Introduction

In the US healthcare system, the emergency department (ED) acts as the safety net for any individual in need of care, regardless of insurance, race, age, immigration status, or overall position in society.

Although designed to provide acute medical care, the ED – because of its ubiquity and unique position within the healthcare system – is not only a place where people can seek and receive medical care, it also often provides food and shelter, if only for the night. People present to the emergency department with many complex needs reaching beyond the acute medical complaint. In one study 31% of patients surveyed at an urban emergency department reported 1 or more serious social deprivations within the past year including eviction, interruption of phone or electrical service, lack of food, or crowded or unsafe housing.[1]

These myriad needs are not independent of health. Insecure housing and/or lack of food and other social needs can lead to decompensation of chronic medical conditions and prompt more ED visits.[2,3] Helping patients navigate their health-related social needs may increase the health and well being of the patient. This has been demonstrated both for disease-specific outcomes, such as hemoglobin A1c, and for general outcomes, such as medical care utilization and general health function.[4]

However, although emergency physicians (EPs) serve as front line providers for many people coping with the health consequences of social deprivation, they receive minimal formal education in how to address these complex needs.

To understand how ED providers experience their patients' health-related social needs, we created a national survey of EPs. We sought to characterize how often EPs see patients with such needs, which needs they believe lead to frequent ED use, and what providers actually do when they are confronted by health-related social needs. We sought to determine if interest or concern regarding such needs varies by practice environment or by career stage. We hoped to gauge whether EPs want more education on social determinants of health and probed into what barriers EPs perceive in addressing these aspects of their patients' care.

Methods

We developed a 40-item survey to measure emergency physicians' experience with their patients' health-related social needs. To devise the survey, a group of content experts from within our department, including the investigators and managers of the health-related social needs help desk, gathered to specify those domains that were essential to cover. These domains were formulated into overlapping questions, and the resulting battery was pilot-tested on three residents in our department, who were naïve to our process. We interviewed these subjects about the validity of the items, modified the items based on their feedback, and tested the revised instrument on three new naïve residents. After the second revision, we deployed the instrument electronically to surveymonkey.com, a proprietary website that enables subscribers to develop and distribute online surveys. (Full survey available upon request.)

We sent solicitations to the Program Directors of all ACGME-accredited Emergency Medicine residency training programs as identified through the ERAS website. Program Directors received up to three reminders to solicit their groups via the Council of Residency Directors email listserv between April and July 2013. The Program Directors were asked to forward the survey to faculty, fellows, and residents within their departments. Respondents qualified for a random drawing for a gift card. This protocol was considered exempt by the Institutional Review Board at Alameda Health System.

The survey included questions relating to respondent's training program, level of training, and the type of training program. The main body of the survey focused on the provider's perceptions of three domains: (1) the frequency of non-medical needs seen in the ED; (2) non-medical needs causing return ED visits; (3) non-medical needs they would want to learn more about. Responses were measured using a modified Likert scale with five potential answers, as well as by "check all that apply" questions.

For the purposes of analysis, data were subsequently recoded into dichotomous variables with a separate categorization of "not applicable" (when respondents felt the question was not applicable to their practice). Missing data were tabulated. No missing values were imputed. For the purposes of analysis, missing data were assumed to be non-differential with respect to covariates of interest (level of training or program type).

Responses are reported as proportions, stratified by training level and program type; a chi-square test

was used to assess differences in groups. Data were analyzed using Stata version 11 (StataCorp, College Station, TX).

Results

Description of the Sample

We broadcast survey links to 168 US emergency medicine training programs, receiving 432 responses from 79 different institutions in 31 states; 45% were residents and 49% attending physicians, the remainder were fellows and mid level providers. Of the residents, 19.1% were post-graduate year (PGY) 1, 14.9% were PGY-2, 11.6% were PGY-3 and 3.1% were PGY-4. In describing their work settings, 47% of respondents identified their training programs as academic, 28% as county, 18% as community, and 7% as mixed. (Table 1) It is generally understood that academic programs are tertiary/quaternary care centers, county programs are set in safety-net and/or public facilities, and the community programs make up the remainder.

Emergency Providers Perceptions of Social Factors

Respondents' perceptions of which factors influence visits can be found in Table 2. All subjects replied that they see patients with social needs; all but two felt that social needs move patients to return to the ED. A lack of primary care, a lack of insurance, and homelessness were the needs most often cited to spur patients to return.

While the vast majority of providers ask about social problems, there is variability in the degree to which individual doctors query about specific problems. While nearly all doctors ask about whether the patient has a PCP, nearly 38% never ask about access to food stamps (Table 2). Reasons for not asking included feeling unable to act (54%), lack of time (20%), and lack of knowledge (22%). Fewer than 1% of respondents (4/432) replied that addressing non-medical needs was not part of their job or that such needs were not relevant to patients' health. When respondents recognize social needs, they refer to social work (77%), to outside agencies (32%), and/or will try to solve these problems themselves (27%).

Comparisons between respondents at different levels of training and between respondents from different training settings can be found in Table 3. Both residents and attendings from all types of institutions were equally likely to believe social needs caused patients to return and to ask about such needs. There was no difference between attendings and residents in level of interest in attending educational sessions regarding social needs; the majority of both groups expressed interest in receiving more education.

The frequency with which providers reported asking about social needs was similar at community and county hospitals (98% and 93%, respectively, p=0.06), but providers in community hospitals were more likely than providers in county hospitals to report they do not ask about social needs (7.04% v 1.71%, p=0.02).

Discussion

In this survey of 432 Emergency Medicine providers across a broad range of institutions, we found that providers across all levels of training and practice settings see patients with non-medical needs and identify these needs as important factors driving return ED visits as well as influencing patients' overall health.

Table 1: Characteristics of respondents and programs, n= 432

Provider Type	N, %	PGY year (N, %)	Program Type	N, %
Resident	222 (51%)		Academic	201(44.1%)
PGY-1		87 (19%)	County/Academic	123 (27.0%)
PGY-2		68 (15%)	Community/Academic	79 (17.3%)
PGY-3		53 (12%	County/Community/Academic	29 (6.4%)
PGY-4		14 (3%)		
Fellow	8 (2%)			
Attending	199 (46%)			
Midlevel (NP/PA)	3 (1%)			
Total	432			

PGY = post-graduate year .NP/PA = nurse practitioner/physician's assistant

Table 2
Respondents' perception of social needs

Social Need	% of respondents reporting frequent/very frequent need among patients	% of respondents never ask about need
No Primary Care Doctor	86.0	0.2
Specialty Care	86.0	0.4
Dental Care	85.3	0.9
No Insurance	84.2	1.1
Transportation	82.0	2.0
Homelessness	81.6	0.9
Mental Healthcare	81.6	0.4
Caring for other	81.6	2.4
Substance/Alcohol Abuse Treatment	80.0	1.8
Victim of Crime	79.2	1.3
Unemployment	77.2	6.0
Inadequate Insurance	75.4	5.7
Domestic Violence	70.4	1.3
Disability Benefits	69.3	11.6
Housing Conditions	67.8	11.4
Caring for Child	66.9	8.8
Income Support	66.2	15.6
Problems at Job	64.9	12.7
Rehabilitation	63.0	13.6
No Healthy Food	61.4	18.6
Not Enough Food	55.3	10.8
Utilities	43.0	35.1
Immigration	42.8	20.2
Debt/Bankrupcy	41.5	34.2
Tickets/Warrants	35.5	38.6
Food Stamps	36.0	37.7

Table 3
Stratification of responses by level of training and program type

	% responding yes		
	Residents	Attendings	p-value
Do you ask about patients' social needs?	95.7	94.8	0.695
Do social needs cause patients to return to the ED?	99.5	99.5	0.925
Would you be interested in attending educational sessions regarding social needs?	70.1	74.8	0.704

	% responding yes				
	Academic	County/ Academic	Community/ Academic	County/ Community/ Academic	p-value
Do you ask about patients' social needs?	79.3	95.0	72.2	88.9	0.087
Do social needs cause patients to return to the ED?	99.5	100.0	98.6	100.0	0.589

Despite recognizing non-medical needs as relevant to their clinical practice, patient well-being, and healthcare utilization, respondents do not always ask about these needs. Respondents also often feel incapable of addressing these needs once identified. We speculate that this discrepancy between the recognized importance of non-medical needs and the common perception of being unable to intervene adequately is why the majority of respondents have an interest in more training regarding social needs.

Historically, work with the poor and disadvantaged has always been part of the emergency medicine mission. Emergency medicine was established philosophically as a specialty that cares for all people regardless of ability to pay.[5] In addition, high-risk social behaviors known to affect health (smoking, problem drinking, domestic violence, high-risk sexual behavior, drug use) are common among ED patients.[6,7] Our survey strongly suggests that a socially-oriented view of healthcare lives on in contemporary emergency physicians (EPs), as all respondents in our sample recognize caring for patients with non-medical needs, and more than 99% report that addressing non-medical needs is part of their job and relevant to their patients' health.

Respondents in our sample also recognize non-medical issues as important factors causing return ED visits and increasing healthcare costs. Studies have shown that many non-medical needs affect health and healthcare utilization.[8] For example, heavy drinkers visit doctors more frequently, have more recurrent illnesses, take more sick days, and are hospitalized more often than occasional drinkers.[9] Structured interviews of 193 homeless people in an urban ED found that nearly 1 in 3 had come to the ED because of safety concerns, hunger, or lack of shelter.[3] In addition, it has also been shown that addressing social needs such as lack of shelter, substance/alcohol abuse, lack of health insurance, lack of social security income support, unmet basic financial needs, and mental health can reduce healthcare use and cost.[10,11]

A recent finding from Oregon's Medicaid experiment,[12] suggesting that ED use increased with the provision of healthcare coverage, can be viewed as paradoxically supporting the relationship between health-related social needs and ED use. Many of these patients, despite gaining insurance, may still be saddled with other burdens of poverty and its attendant health effects. Newly insured, but without a usual source of care, they arrived at the ED in

greater numbers and likely brought their social needs with them.

Despite recognizing the importance of non-medical needs, respondents do not consistently address these needs, pointing to lack of time or knowledge. Similar constraints were found to be barriers to intimate partner violence screening,[13] which has now become a universal recommendation for women of childbearing age as per the U.S. Preventive Services Task Force (USPSTF).[14] In fact, despite relatively high prevalence of non-medical issues in ED patient populations, physicians infrequently identify and refer appropriately for many social needs and risky behaviors.[7] The ED visit may be the only time many of these patients have contact with the medical or welfare system[1] and providers should be encouraged – and trained – to take advantage of these opportunities. Further highlighting the importance of the ED in screening, patients may be willing to disclose highly sensitive information when the right tools are in place.[15]

Our findings suggest that ED providers want to improve their ability to address non-medical needs. Over 70% of residents and attendings in our sample want more resources and would attend educational sessions. Several interventions have been described to improve social needs screening and intervention in the ED, including private computer-based screening in the waiting room,[14] comprehensive clinical management programs,[11] and medical-legal partnerships (MLP).[16,17] MLPs are an integrated team of healthcare and legal partners that aim to "identify, address and prevent health-harming legal needs for patients, clinics and populations"; they have been established in at least 231 healthcare institutions in 34 states.[17] MLP's in particular may represent an effective way to bridge the gap between provider desire to address social needs and their perceived inability to do so.[18] At Highland Hospital/Alameda Health System in Oakland, CA, providers can refer patients to the Highland Health Advocates help desk, where a college undergraduate volunteer can assist them with a wide range of social needs and can access social work and/or legal services for needs that require higher levels of expertise, such as help for those facing eviction or deportation.[19] The availability of such resources may increase the likelihood that ED providers will address important social needs, by providing an efficient option to access assistance.

Another option for addressing these deficiencies of knowledge and skill would be to establish formal education in social emergency medicine as a standard part of the emergency medicine residency curricula. A large body of literature decisively demonstrates that non-medical needs predict health outcomes and that these social determinants of health often interlace with the medical care system in the emergency department. Our survey adds that ED providers feel inadequately trained and they want more education in how to address social needs.

Our study has several limitations. Most important to widespread inference from our findings is the lack of certainty regarding the denominator. By using the CORD listserv, we gained access to a rich source of subjects, but the actual population we sampled was determined by the extent to which listserv members disseminated the survey link. Nevertheless, we sampled a large number of emergency physicians, building a compelling if not comprehensive view of this landscape. A subsidiary limitation of this study is that we surveyed providers from academic/training programs where residents/fellows are in the midst of their training and attendings traditionally highly value education. Their views on seeking more information on addressing social needs in particular may not reflect the general EP population. Any training however, would be precisely for providers in emergency medicine residency programs, at least in its earlier phases.

Our results appear to call for formal social emergency medicine. Currently, no formal social medicine training currently exists to our knowledge in an emergency medicine residency, though potential curricula could be modeled after social medicine fellowships in Emergency Medicine,[20] Internal Medicine or Preventive Medicine Residencies.[21]

ED providers commonly see patients with non-medical needs and view these needs as factors driving repeat ED visits. Although they perceive addressing social needs as part of their job, ED providers inconsistently ask about social needs because of lack of knowledge, time, or a perceived inability to intervene. There was no significant difference in responses regarding non-medical needs between ED providers regardless of training levels or practice settings. ED providers want more education in how to address non-medical needs. We believe that it is imperative to address these needs through social and political advocacy to better care for our patients.

References

1. Gordon JA, Chudnofsky CR, Hayward RA. Where health and welfare meet: social deprivation among patients in the emergency department. J Urban Heal Bull New York Acad Med. 2001;78(1):104–11.
2. Seligman HK, Laraia BA, Kushel MB. Food insecurity is associated with chronic disease among low-income NHANES participants. J Nutr. 2010;140(2):304–10.
3. Rodriguez RM, Fortman J, Chee C, Ng V, Poon D. Food, Shelter and Safety Needs Motivating Homeless Persons' Visits to an Urban Emergency Department. Ann Emerg Med. 2009;53(5).
4. Kangovi S, Barg FK, Carter T, Long JA, Shannon R, Grande D. Understanding why patients of low socioeconomic status prefer hospitals over ambulatory care. Health Aff. 2013;32(7):1196–203.
5. Zink BJ. Social justice, egalitarianism, and the history of emergency medicine. virtual mentor Am Med Assoc J Ethics [Internet]. Amer Med Assoc; 2010 Jun;12(6):492–4. Available from: http://virtualmentor.ama-assn.org/2010/06/mhst1-1006.html
6. Lowenstein SR, Koziol-McLain J, Thompson M, Bernstein E, Greenberg K, Gerson LW, et al. Behavioral risk factors in emergency department patients: a multisite survey. Acad Emerg Med Off J Soc Acad Emerg Med. 1998;5(8):781–7.
7. Gordon JA, Billings J, Asplin BR, Rhodes K V. Safety net research in emergency medicine: proceedings of the Academic Emergency Medicine Consensus Conference on "The Unraveling Safety Net". Academic emergency medicine: official journal of the Society for Academic Emergency Medicine. 2001. p. 1024–9.
8. Marmot MG, Bell R. Action on health disparities in the United States: commission on social determinants of health. JAMA J Am Med Assoc. 2009;301(11):1169–71.
9. Hana S, Ladislav C. Subjective well-being, morbidity and health care consumption by hazardous, harmful and problem alcohol drinkers. Casopís lékařů českých [Internet]. 2011;150(7):394–7. Available from: http://www.ncbi.nlm.nih.gov/pubmed/22044086
10. Larimer ME, Malone DK, Garner MD, Atkins DC, Burlingham B, Lonczak HS, et al. Health care and public service use and costs before and after provision of housing for chronically homeless persons with severe alcohol problems. JAMA J Am Med Assoc. 2009;301(13):1349–57.
11. Shumway M, Boccellari A, O'Brien K, Okin RL. Cost-effectiveness of clinical case management for ED frequent users: results of a randomized trial. Am J Emerg Med [Internet]. 2008 Feb [cited 2015 Apr 12];26(2):155–64. Available from: http://www.sciencedirect.com/science/article/pii/S0735675707003026
12. Taubman SL, Allen HL, Wright BJ, Baicker K, Finkelstein AN. Medicaid increases emergency-department use: evidence from Oregon's Health Insurance Experiment. Science (80-) [Internet]. 2014;343(6168):263–8. Available from: http://www.ncbi.nlm.nih.gov/pubmed/24385603
13. Sprague S, Madden K, Simunovic N, Godin K, Pham NK, Bhandari M, et al. Barriers to Screening for Intimate Partner Violence. Women Health. 2012;52(6):587–605.
14. Screening for Intimate Partner Violence and Abuse of Elderly and Vulnerable Adults [Internet]. Recommendation Summary. Recommendation Summary; 2013. Available from: http://www.uspreventiveservicestaskforce.org/Page/Topic/recommendation-summary/intimate-partner-violence-and-abuse-of-elderly-and-vulnerable-adults-screening
15. Rhodes K V., Lauderdale DS, Stocking CB, Howes DS, Roizen MF, Levinson W. Better health while you wait: A controlled trial of a computer-based intervention for screening and health promotion in the emergency department. Ann Emerg Med. 2001;37(3):284–91.
16. Tobin E. Allies Not Adversaries: Teaching Collaboration To the Next Generation of Doctors and Lawyers To Address Social Inequality. J Heal Care Law Policy. 2008 Sep;11:249–94.
17. National Center for Medical-Legal Partnership [Internet]. Milken Institute School of Public Health. he George Washington University; [cited 2014 May 17]. Available from: http://medical-legalpartnership.org/
18. Zuckerman B, Sandel M, Smith L, Lawton E. Why pediatricians need lawyers to keep children healthy. Pediatrics. 2004;114(1):224–8.
19. Alter HJ. Social determinants of health: from bench to bedside. JAMA Intern Med [Internet]. 2014;174(4):543–5. Available from: http://archinte.jamanetwork.com.ucsf.idm.oclc.org/article.aspx?articleid=1828740
20. Social Emergency Medicine & Population Health Fellowship [Internet]. Stanford University Medical Center. Stanford University Medical Center; 2008 [cited 2014 Jul 5]. Available from: http://emed.stanford.edu/fellowships/mph.html
21. Department of Social Medicine. Preventive Medicine Residency [Internet]. UNC School of Medicine. University of North Carolina; 2013 [cited 2014 Jul 5]. Available from: http://www.med.unc.edu/socialmed/prevmed