Five myths about ED use

Myth 1: There is a lot of inappropriate ED use in the United States.  
*What seems minor after the visit may not seem minor before the visit.* Heartburn and heart attack both present with chest pain, and sometimes it is impossible to tell them apart without a careful evaluation. In a national study 89% of ED visits fell into this “gray zone,” where the presenting complaint was sometimes associated with “non-emergency” diagnoses but more often required ED care.¹

*Whether an ED visit is “necessary” depends on what other care is available.* A crying, febrile one-year-old may not need the ED but on a weekend or evening, if no other source of care is available, it may not be reasonable or safe to delay care. Nationally, 48% of patients using EDs come there at least in part because their doctor’s office is not open.² In Oregon, only 27% of ED visits occur on weekdays between 8:30 AM and 4:30 PM, when a primary care office is most likely to be able to see the patient.

*Improved access to primary care reduces ED use.* In Philadelphia, Medicaid enrollees whose primary care providers had twelve or more evening hours a week used EDs 20% less than similar patients whose providers did not offer evening hours.³ Multiple interventions to improve primary care accessibility have been shown to succeed at reducing ED use.⁴

On the other hand, *reduced access to primary care increases ED use.* After the Oregon Health Plan cutbacks in 2003, ED visits by uninsured Oregonians rose by 20%. Uninsured visits for drug, alcohol and other psychiatric problems doubled.⁵

Myth 2: ED use is a major cost driver.
The major cost drivers in the US are in-patient care, office-based providers, and prescriptions. These three categories make up 73% of all US healthcare costs. *ED visits generate only 4% of US healthcare costs.*⁶
One argument for reducing ED visits is that ED visits sometimes lead to expensive hospitalizations. *While it is true that hospital admissions are expensive, if someone is sick enough to require hospitalization it would be unwise to discourage their seeking emergency care.* Patients with poor access to primary care are disproportionately likely to use EDs for asthma, chronic obstructive lung disease, congestive heart failure, diabetes mellitus, and hypertension. The best strategy to reduce expensive hospitalizations involves looking at why people get sick enough to need hospital admission, not looking at ways to discourage ED use by sick people.

An aggressive system to discourage ED use by Oregon Health Plan enrollees would, at the most, *reduce total spending by 2%*. However, such a system would incur administrative costs, costs for additional primary care visits, and – potentially – costs for more expensive care later if patients delayed care and became sicker.

*The marginal costs for treating a patient in the ED may be less than the costs of running a separate urgent care facility with redundant resources.* In some communities, particularly smaller rural communities with relatively small numbers of after-hours visits, “ED alternatives” have closed when it became apparent that the overhead for keeping the facility open extended hours cost more than treating the patients in the ED.

**Myth 3: ED use for minor problems causes ED overcrowding.**

In the US, most ED overcrowding is due to complex patients having long waits in EDs until an in-patient bed becomes available. *Reducing ED use for minor problems would have little impact on ED crowding.*
Myth 4: ED use disrupts continuity of care.  
In one national study (typical of other research on the topic) 81% of frequent ED users (four or more ED visits/year) had a usual source of care outside the ED. They used the ED as well as primary care because they were in poor health. Those who study ED use distinguish between “frequent” ED users (see above paragraph) and “super users.” Oregon Health Plan ED “super-users” with 75 or more ED visits over four years consistently had unstable primary care (most with two or more PCPs over the four-year period), psychiatric problems (97%) and major physical health problems, suggesting the value of case management and integrated physical and behavioral health care as is being developed by CCO’s.

Myth 5: It is easy to reduce “unnecessary” ED use.  
Two approaches that have been proposed to discourage ED use are triaging patients away from the ED and implementing high copayments for ED visits.

*Triaging patients away from EDs carries risks.* In numerous studies, 0.25% to 5% of patients who met criteria to be triaged away required same-day hospital admission. Many more patients might have required hospital admission had they not been stabilized in the ED. It is hard to justify the risks given the minimal potential cost savings.

In a California Kaiser study involving mainly middle class patients, ED copayments of $20 to $100 led to a 12% to 23% decrease in ED use, with no increase in ICU admissions or deaths. However, copayments create greater risks in vulnerable patients: adding a $50 copayment for ED visits by Oregon Health Plan enrollees was not successful. Although it reduced ED use by 8%, the cost per ED visit rose by 8% and inpatient use rose by 27%. This study suggests that Oregon Health Plan enrollees faced with copayments waited longer to come to the ED and by the time they came they were sicker and incurred greater costs.

*Interventions conducted outside the ED to reduce the need for ED care have been more successful than triage and copayments.* A recent article systematically reviewed 48 previous research studies on interventions to reduce ED use. The authors concluded that *interventions to improve primary care accessibility are consistently successful in reducing ED use. However, studies of other strategies, including educational interventions, copayments, and gatekeeping or triage out of the ED were of limited or uncertain benefit.*

*Learning best practices for healthy communities:* ED use by Oregon Health Plan enrollees varies ten-fold in different Oregon communities, suggesting opportunities for high-use communities to learn from their neighbors.

*Finding holes in the safety net:* Five percent of ED visits by uninsured Oregonians and 3% of visits by OHP enrollees are for dental problems, suggesting opportunities to improve the dental
safety net. Similarly, 5% of uninsured ED visits and 6% of OHP visits involve psychiatric diagnoses, suggesting the need for better mental health care.\textsuperscript{17}

Identifying social determinants of health: Of women ultimately diagnosed as being victims of intimate partner violence in Oregon EDs, only half have the diagnosis recorded on their first ED visit. Many of the women’s earlier visits were for injuries.\textsuperscript{18} The more visits a woman had, the greater the odds of her being a victim of intimate partner violence.

Oregon has a “primary enforcement” seatbelt law, for the driver and all passengers. Ohio does not. If Ohio followed Oregon’s example, projected Medicaid savings for acute and long-term care of severely-injured patients are $91 million over the next ten years.\textsuperscript{19} Emergency department use is heavily impacted by other social determinants such as homelessness and poverty.

In conclusion

Responding to ED visits as if they are the problem is like cutting off the tip of an iceberg: More ice will surface and nothing will be accomplished.

However, if we examine the tip closely, we can learn what is transpiring beyond our field of vision. If we listen to ED patients and learn from ED data, we find numerous opportunities to improve the healthcare system, address social determinants of health, and improve the health of the public.

For more information

Robert A. Lowe, MD, MPH
Professor, Departments of Medical Informatics and Clinical Epidemiology; Emergency Medicine; Public Health and Preventive Medicine
Oregon Health and Science University
3181 SW Sam Jackson Park Road
Mail Code BICC504
Portland, OR 97239
LOWERO@ohsu.edu
503 494-7134
References cited

1. Raven MC, Lowe RA, Maselli J, Hsia RY. Comparison of presenting complaint vs discharge
diagnosis for identifying "nonemergency" emergency department visits. *JAMA.* Mar 20

2. Gindi RM, Cohen RA, Kirzinger WK. *Emergency room use among adults aged 18–64: Early release
of estimates from the National Health Interview Survey, January–June 2011.*: National Center for
Health Statistics; May 2012 2012.

characteristics and emergency department use in a Medicaid managed care organization.
*Medical Care.* Aug 2005;43(8):792-800.

organizational interventions to reduce emergency department utilization: a systematic review.


7. Oster A, Bindman AB. Emergency department visits for ambulatory care sensitive conditions:


9. Asplin BR, Magid DJ. If you want to fix crowding, start by fixing your hospital. *Annals of
emergency medicine.* Mar 2007;49(3):273-274.

10. Hunt KA, Weber EJ, Showstack JA, Colby DC, Callaham ML. Characteristics of frequent users of

11. Kuehl DR, Lowe RA, Gallia CA. Heavy emergency department users in a state Medicaid
population have multiple chronic illnesses and unstable primary care. *Acad Emerg Med.* May


13. Abbuhi SB, Lowe RA. The inappropriateness of "appropriateness". *Academic Emergency

Findings from the safety and financial ramifications of ED copayments study. *Health Serv Res.*

15. Wallace N, McConnell KJ, Gallia C, Smith J. How effective are copayments in reducing
expenditures for low-income adult Medicaid beneficiaries? Experience from the Oregon health plan.

16. Lowe RA, Fu R, Ong ET, et al. Community characteristics affecting emergency department use by

17. Lowe RA, Vogt ME, Smith JA. Indicators of unmet need: Emergency department visits for

18. Choo EK, Nicholaides C, Lowe RA. Emergency department visits prior to the diagnosis of intimate

19. Conner KA, Xiang H, Smith GA. The impact of a standard enforcement safety belt law on