

Myth

Busters

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A SERIES OF ESSAYS GIVING THE RESEARCH EVIDENCE BEHIND CANADIAN HEALTHCARE DEBATES

MYTH

Emergency room overcrowding is caused by non-urgent cases

According to critics, patients with minor problems take up limited emergency room (ER) resources and create backlogs, leaving the sickest patients at risk of facing unreasonable and unsafe waits for potentially life-saving care. If this were true, then clearing the backlog would depend on diverting non-urgent patients away from the ER and increasing the number of primary care doctors available to these patients. In reality, though, research shows these to be simplistic strategies that fail to address the multidimensional and complex causes of ER overcrowding.

Diverting non-urgent patients undercuts safety, not costs

It's generally considered unsafe medical practice to divert non-urgent patients from the ER, since a small percentage will legitimately need to be admitted for care. A 2002 study of an urban emergency department found a 4.3% admission rate among its less- or non-urgent patientsⁱ and a 2004 study of another urban emergency department found a 7.6% admission rate for its non-urgent patients alone.ⁱⁱ Diverting non-urgent patients to community care (for example, to a primary care clinic) may be considered an option, but its benefits are unproven for remedying backlogs or reducing wait times for urgent patients.ⁱⁱⁱ Turning patients away is not shown to curb costs either, since non-urgent patients are rarely admitted for care and few require diagnostic tests or consultations with specialists.ⁱ

Do some patients rely on the ER as a surrogate for primary care?

Orphan patients – those who have no primary care provider and see the hospital emergency department as their only source for medical attention – may come to mind as frequent users of emergency department services. Indeed, research shows that having a primary physician is associated with decreased emergency department use by elderly people, particularly those living in urban areas.^{iv} However, numerous studies show that most visitors to emergency departments do have a family doctor.^{v-viii}

A 2008 survey of patients visiting emergency departments in British Columbia found that 94% reported having a regular family physician.^v A survey conducted in the ER of a rural Ontario hospital produced similar results – 81% reported having a family doctor.^{vi} Meanwhile, a Nova Scotia study suggests that 24% of non-urgent patients had already seen (and were referred by) a healthcare provider before arriving at the ER, while 49% visited the emergency department to access specific acute care services – such as diagnostics, suturing, and the repair of casts and splints.^{vii} A 2008 Manitoba study identifying frequent users of emergency departments found that 95.3% of this population had at least one visit with a family physician in a given year.^{viii}

Are frequent users ER abusers?

Although some patients make more visits to emergency departments than others, this doesn't mean they should be labelled system abusers. The same 2008 study from Manitoba defined frequent usage as seven or more emergency department visits in one year. Its review found that 2.2% of its users were responsible for 13.6% of visits in one year. These patients tended to be older, impoverished, living in the Winnipeg core area, and with a history of mental illness.^{viii} These findings are consistent with other research on the topic. A 2008 study of urban Canadian ERs found substance abuse problems, known for their association with mental illness, contributed significantly to emergency department visits, hospital admissions and duration of stay.^{ix} Many of these patients also fall into low-income groups or are homeless – problems that cannot be addressed by an emergency department alone.

In general though, visits from frequent ER users tend to be less complex and consume fewer resources than single users. Research suggests that costs per emergency department visit (for laboratory tests, pharmacy, operating rooms and acute care stretchers, for example) are substantially less for frequent

versus single emergency department users.^x In practice, emergency departments can efficiently handle these cases, given their limited reliance on hospital resources.

What causes the backlog?

Backlogs are often attributed to limited bed capacity – it has been estimated that, at any given time, Canadian hospitals have less than 5% of total beds available for incoming patients.^{xi} When hospital wards reach their bed capacity, incoming acute care patients are often kept in the ER.^{xii} However, ER overcrowding is a system-wide issue, with many contributing factors such as length of stay of admitted patients, complexity of patient cases, problems with human resources, and poor integration within and between hospitals and from hospitals to communities – all of which have been cited as the major causes of ER overcrowding.^{x, xii-xiv}

Treat the sickest patients first

Lower complexity patients don't worsen the situation because their care tends to be simple, brief and require few resources.^{ii,xv} Through a process of triage, priorities for patient care are based on the type and severity of patient symptoms. In Canada, the Canadian Emergency Department Triage and Acuity Scale (CTAS) is the nationally recognized tool for assigning priorities for patient care.^{xvi} Although triage is not an exact science and its benefit for clearing backlogs is yet unproven,^{xvii} it does help to ensure that the sickest patients are cared for first.^{xvi} Increasingly, non-urgent patients are seen by professionals working in fast-track units embedded in the emergency department.^{xv} These units free up emergency room resources to meet the most urgent care needs.^{xv}

Conclusion

Emergency department overcrowding has potentially devastating effects. However, research suggests that simply reducing noses through the ER door and introducing more primary care physicians alone will not resolve the backlog. ER overcrowding is a symptom of a larger set of issues that cannot be addressed by the emergency department – or even hospitals – alone. As a recent report on improving access to emergency care states: "A system wide problem cannot be remedied by selecting only portions of a system wide solution."^{xviii}

This issue of Mythbusters is based on an article by the 2009 Mythbusters Award recipient, Mr. André R. Maddison. André is a Master's candidate at Dalhousie University in Halifax, Nova Scotia.

References

- i. Schull M, Slaughter PM & Redelmeier DA. 2002. "Urban emergency department overcrowding: Defining the problem and eliminating misconceptions." *Canadian Journal of Emergency Medicine*. 4(2): 76-82.
- ii. Vertesi L. 2004. "Does the Canadian Emergency Department Triage and Acuity Scale identify non-urgent patients who can be triaged away from the emergency department?" *Canadian Journal of Emergency Medicine* 6(5): 337-42 <http://www.caep.ca>
- iii. Ardagh MW et al. 2002. "Effect of a rapid assessment clinic on the waiting time to be seen by a doctor and the time spent in the department: a controlled prospective trial." *New Zealand Medical Journal* 115: 1-7.
- iv. Ionescu-Iltu R et al. 2007. "Continuity of primary care and emergency department utilization among elderly people." *Canadian Medical Association Journal*; 177 (11): 1362-8.
- v. Murray M. 2008. Patient experiences with emergency departments in British Columbia, 2007. <http://www.health.gov.bc.ca>
- vi. Harris et al. 2004. "Use of Emergency room in Elliot Lake, a rural community of Northern Ontario, Canada." *Rural and Remote Health*; 4 (240): online.
- vii. Field S & Lantz A. 2006. "Emergency department use by CTAS level IV and V patients." *Canadian Journal of Emergency Medicine* 8(5): 317-322.
- viii. Doupe MD et al. 2008. An Initial Analysis of Emergency Departments and Urgent Care in Winnipeg. Winnipeg: Manitoba Centre for Health Policy. <http://mchp-appserv.cpe.umanitoba.ca>
- ix. Brubacher JR et al. 2008. "Substance-related problems in patients visiting an urban Canadian emergency department." *Canadian Journal of Emergency Medicine*; 10(3): 198-204.
- x. Ruger JP et al. 2004. "Analysis of costs, length of stay, and utilization of emergency department services by frequent users: implications for health policy." *Academic Emergency Medicine*; 11(12):1311-1317.
- xi. Physician hospital care committee. 2006. Improving access to emergency care: Addressing systems issues. Toronto, ON: Ontario Medical Association.
- xii. Drummond AJ. 2002. "No room at the inn: overcrowding in Ontario EDs." *Canadian Journal of Emergency Medicine* 4(2): 91-97.
- xiii. Bond K et al. 2006. Interventions to reduce overcrowding in emergency departments [Technology report no 67.4]. Ottawa: Canadian Agency for Drugs and Technologies in Health. <http://www.cadth.ca>
- xiv. Canadian Institute for Health Information. 2007. Understanding emergency department wait times: Access to inpatient beds and patient flow. Ottawa: CIHI. <http://secure.cihi.ca>
- xv. Schull MJ, Kiss A & Szalai JP. 2007. "The effect of low-complexity patients on emergency department waiting times." *Annals of Emergency Medicine* 49 (3): 257-264.
- xvi. National CTAS Working Group, Canadian Association of Emergency Physicians. 2009. Canadian Triage and Acuity Scale (CTAS). Ottawa: CAEP. <http://www.caep.ca>
- xvii. Canadian Agency for Drugs and Technologies in Health. 2006. Emergency Department Overcrowding in Canada: What are the issues? And what can be done? Ottawa: CADTH [www.http://www.cadth.ca](http://www.cadth.ca)
- xviii. Report of the Physician Hospital Care Committee, a Tripartite Committee of the Ontario Hospital Association, the Ontario Medical Association and the Ontario Ministry of Health and Long-Term Care. 2006. Improving access to emergency care: Addressing system issues. <http://www.health.gov.on.ca>

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