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Finding value in 'inappropriate' visits: A new study demonstrates how variation in ED use for preventable visits can be used to detect problems with access to healthcare in our communities.

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Author

Weber, Ellen J

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In Perspective

A new study demonstrates how variation in ED use for “preventable” visits can be used to detect problems with access to health care in our communities.

There’s a paper out there that is likely to remain unread by many emergency physicians, in large part because it appears in the journal *Health Services Research*.¹ Yet this study by Sheryl Davies et al is worthy of our attention because it marks a new line of inquiry about those pesky “inappropriate” ED visits. Depending on who you talk to, and probably what time of day it is, emergency physicians are often sympathetic with the patient’s plight, but these visits do add to the overall workload. And so our literature is filled with numerous studies that ask the same question of patients assigned a triaged acuity of 4 or 5, of green or blue: why did you choose to come to the ED (stage whisper: *for this minor problem*)? We ask questions about transport, do they have a GP, did they call an advice person first; we try to assemble a picture of what they conceive of as an emergency and what their options are. Several patients say their doctor sent them in, others that there was no answer at the doctor’s office, others that the person on the other end of the advice line sent them, and still others that they have no GP. This methodology is a bit like the proverbial blind men and the elephant, and each study done this way tries to take partial experience and make it the whole truth.

Imagine though one day you showed up at work, and there were 20 patients with minor illnesses in your ED, and every single one you asked told you that their GP had

closed their practice; or that the minor injuries unit just shut down because of a burst pipe. You'd start to wonder – the same GP? The same minor injuries unit? If you asked them, they would all be in the same zip or postal code and, you would then discover that the local GP in a nearby village has retired or, the minor injuries unit on the other side of the city is temporarily shut for urgent electrical repairs. Congratulations, today you became an epidemiologist. And more importantly, you gained some understanding not only as to why the ED was filled with these minor patients, but also how it could be fixed.

So this is exactly what Davies and colleagues from the US have done. They, like many of us, know the ED is a microcosm of society, the canary in the coal mine. If there is something wrong in the system (flu, hunger, homelessness, untreated mental illness), it will be reflected by those who visit the ED. So instead of trying to determine what patients have in common when they tell us why they use the ED, this group of researchers asked: what is different about the communities where rates of ED visits for specific conditions are high compared to places where ED visits for the same conditions are lower. Rather than classifying ED visits as appropriate or inappropriate, they examined whether ED visits for specific conditions could be used as potential “signals” of adequate or inadequate underlying community based resources that could be tracked over time. To do this, they used a Delphi process involving physicians and end users to develop “ED prevention quality indicators” (ED PQI's) – that is, types of ED visits that might have been preventable if there were appropriate services and access to them in the community. (Example: non-traumatic

dental conditions, 2 or more visits/year for back pain,). They then examined the variation in the number of visits for these ED PQIs stratified by the characteristics of the community. To do this they obtained data from national databases that cover 28 states, in total 1778 counties for a total of >80 million visits in the U.S.

What they found shouldn't be too surprising. First, there was a wide variation between counties (with standard deviations exceeding 50%) in use of the ED for these conditions. Areas with higher economic deprivation had more of these preventable visits as did areas where there was a higher rate of uninsurance. Interestingly, the density of primary care physicians had little relationship to the frequency of these preventable visits. On the other hand, there were higher rates of visits for dental conditions in areas with a lower density of dentists.

While the findings on health insurance may not be relevant to readers who live in countries with free access to medical and dental care, simply finding that different types of visits vary among communities tells us two important things. First, ED visits are not the problem, they are the symptom. ED visits can be used to detect and describe the health of our communities, their access to care and the resources they need. Second, given the variation in ED use, we can be pretty sure that addressing this 'symptom' will not be amenable to a "one size fits all" solution, and particularly not the one that tells patients asking for ED care to go somewhere else.

So it's not so much the findings of this paper, but the fact that these investigators have turned the standard question on its head – and used variation to demonstrate

the underlying issues that makes this a more enlightened and potentially more helpful approach, not only to ameliorating pressures on EDs, but more importantly, providing whatever it is that patients need in their own communities. Hopefully this paper signals a long overdue paradigm shift that looks for evidence instead of blame, and provides a roadmap to improvement rather than roadblock to care.

i Davies, S., Schultz, E., Raven, M., Wang, N. E., Stocks, C. L., Delgado, M. K. and McDonald, K. M. (2017), Development and Validation of the Agency for Healthcare Research and Quality Measures of Potentially Preventable Emergency Department (ED) Visits: The ED Prevention Quality Indicators for General Health Conditions. Health Serv Res. doi:10.1111/1475-6773.12687