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Redefining Frequent Emergency Department Users

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Abstract

Frequent ED users are perceived to be a costly population that often abuse or misuse ED services due to a combination of unmet social needs and medical conditions that, in theory, could be treated outside of the ED at a lower cost. The reality is that factors contributing to frequent ED use are more varied and complex than originally believed.

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Executive Summary

The rising cost of health care in the US combined with increasing utilization of US Emergency Departments (ED) has directed policymakers to evaluate patient populations who are disproportionately contributing to these issues.[1 2] Frequent ED users are a group that has gained recent attention.[3 4 5]

There are several misconceptions about frequent ED users. First, they are perceived to be a group that abuses or misuses ED services due to a combination of unmet social needs and medical issues that could be treated more efficiently outside of the ED.[6 7 8 9 10] In reality, while a subset of frequent ED users have unmet social needs, the majority have ongoing multi-dimensional medical, social, and mental health needs.[11 12 13] Therefore, generalizing about frequent ED users as a group is often incorrect, because their care needs are often varied and complex.[3 4 11 14 15 16 17 18 19 20]

From an economic perspective, inpatient hospitalizations, not ED visits, are the main cost driver in this population.[21] Therefore, frequent ED use cannot be viewed in isolation, but should instead be viewed in the context of an individual's overall medical and mental healthcare, and social needs.

Broadening the current policy focus from frequent *ED* users to *high-cost* frequent *health system* users may be a more accurate way to frame the issue. This will allow policy makers and providers to concentrate on designing interventions to reduce costs and improve outcomes by coordinating care for a subset of patients who are accessing multiple settings in the delivery system.

Nationwide, many efforts targeting frequent users are underway, yet to date, it is not clear which interventions are most effective. What is clear is that to reduce spending and improve outcomes for frequent users, interventions must span both ED and non-ED settings.[15 22] Multidisciplinary intervention strategies such as care management and coordination can be effective at all points of the health care continuum.[4 5 23 24] Because this population has a wide variety of needs, strategies addressing medical and psychosocial needs are most likely to have a significant impact.

Impact of High-Cost Frequent Users

High-cost frequent users consume a considerable amount of health care resources resulting from chronic conditions that lead to frequent use of ED, ambulatory care and inpatient hospital settings.[11 16 17 25 26]

The heterogeneity of the population can make policy development challenging, as there is no "one size fits all" intervention.[3] When developing policy, a clear understanding of the target population is imperative to assure interventions are not misdirected.[14]

Further, negative stereotypes of frequent users can influence the quality of care received at all levels, exacerbating existing vulnerabilities.[27] Super utilizers, often defined as those who visit the ED greater than 20 times per year, can serve as a distracter when in reality, the vast majority of frequent ED users do not fall into this category.[15]

Reframing the Approach to High-Cost Frequent Users

Refocus intervention strategies: It is important to understand why individuals are high-cost users to ensure interventions meet their specific needs.[14 28] A focus on multidisciplinary interventions addressing both medical and psychosocial needs and that are not restricted to the ED setting have the highest likelihood for success.[24] The ED is rarely the only place high-cost frequent users access services. Some patients have dominant medical needs, others have psychosocial or behavioral health needs, and many have a combination.

Revised metrics: Current metrics used to measure the "success" of programs designed to lower ED use commonly focus on reduction in ED visits and related costs. Evaluations that include more comprehensive metrics such as cost, utilization in health care settings apart from only the ED, and quality will allow policy makers and delivery systems to draw more valid conclusions regarding intervention effectiveness. In addition, outcomes should be applied not only at the individual program level but also at the population level. Programs that gather financial data will allow for cost-benefit or cost-effectiveness analyses that can support dissemination and adaptation of successful models.

Frequent Users vs. Super Utilizers

Frequent users have often been mistaken for super utilizers.

- Super utilizers users represent only a small percent of ED visits, but often accumulate >10-20 visits to the ED/year.
- ED visits are more commonly low acuity complaints and typically involve substance abuse or mental illness.[18 95]
- Given their poor access to other entries of the health care system and lower frequency of hospitalization, they incur a relatively smaller cost burden.

Although this population requires intervention in terms of social and community resources, and outpatient access, comprehensive efforts would target both populations.

Characteristics of Frequent Users

Frequent users visit the ED on average 4-7 times per year and comprise just 4-8% of all emergency patients, but make 21-28% of all ED visits.[3] The population is heterogeneous and has a wide spectrum of medical and behavioral conditions, utilization patterns and types of health services used, thus they accumulate a wide range of costs.[3 15 16 29]

Contrary to the traditional stereotypes, high-cost frequent users:

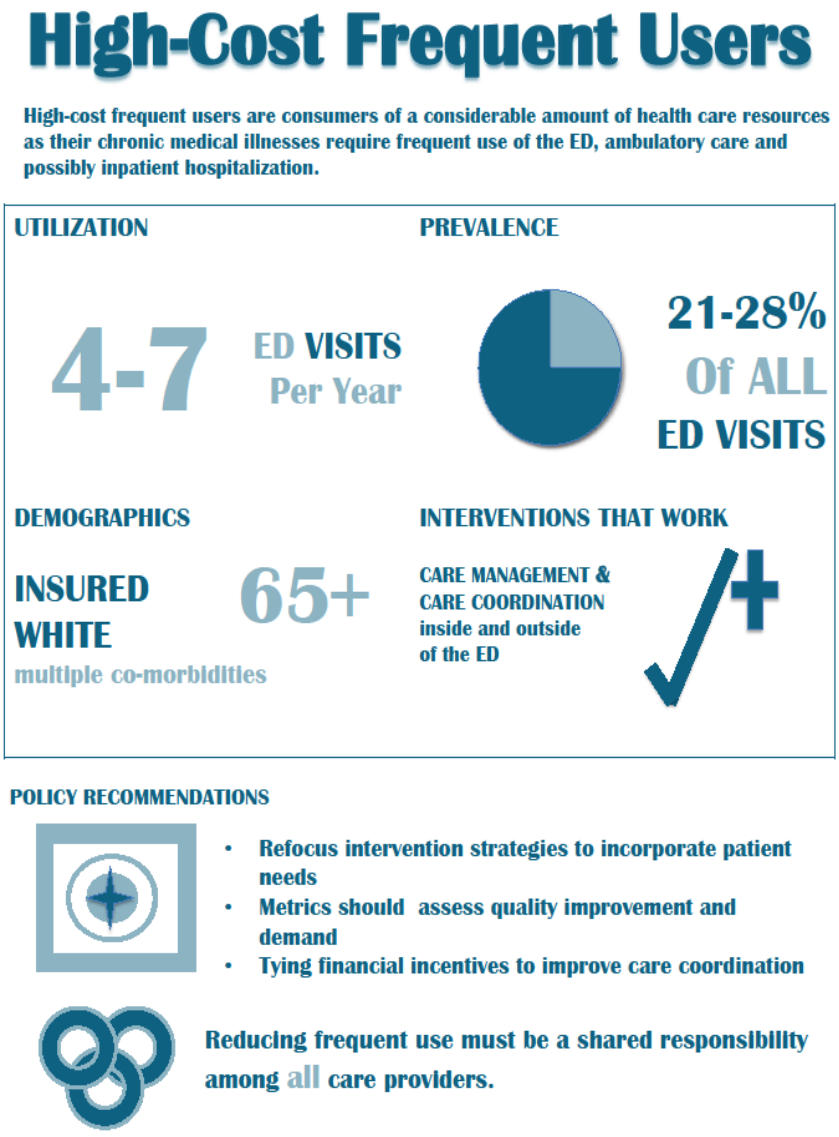
- Have serious medical illnesses and present to the ED with high acuity complaints. They are more likely to require admission to the hospital and have higher mortality rates.[11 16 24] **Error! Bookmark not defined.** [25 26]

- Frequently utilize other parts of the healthcare system (outpatient primary care providers [PCP], specialty services, and retail clinics).[4 18 19 20]

- Are more likely to be Caucasian, greater than 65 years of age, and have private or government insurance.[3 11 17 18]

- Often have co-morbid underlying substance use and/or mental health diagnoses. These diagnoses, however, are rarely the primary reason documented for an ED visit. [11 27 30]

- Have frequent use that is short-term (1-2 years). A smaller percentage will become chronic frequent users over 3 or more years. [4 7 17 31 32]



ED and Non-ED Interventions Targeting High-cost Frequent Users

Reducing frequent health system use must be a shared responsibility among all care providers and often involve non-medical community service providers as well. Multiple studies indicate care management and coordination both inside and outside of the ED may be an effective strategy to reduce hospital admissions and ED visits, improve quality of care, and improve social and clinical outcomes, although more data are needed. [4 5 15 24 33 34 35]

Numerous studies have focused on frequent users and interventions to improve care and reduce use. Reviews by Kumar, Althaus, Katz and Rahman provide an extensive overview of interventions. A few of the studies and approaches are highlighted below:

Intervention Title	Intervention Summary
Clinical Case Management **San Francisco General Hospital**	Patients assigned to a social worker who used a comprehensive case management model. Case manager was responsible for providing and coordinating all services including: crisis intervention, individual and group supportive therapy, arrangement of stable housing and financial entitlements, linkages to primary care providers, harm reduction services and referral to substance abuse treatment, liaison with other community agencies and persistent outreach (i.e. home visits).[34]
Care Connection Program **University of California, Davis Health System**	Patient Navigators interview with patients that meet criteria; nurse practitioner (NP) develops an individualized action plan. Plan includes post-discharge follow up, referrals for non-medical services. The NP refers the client to a peer counselor who assists in transportation, appointment seeking, mental health services, chemical dependency programs, and other support services.[36]
Community & Hospital based care management and coordination **Bellevue Hospital Center**	Patient centered intervention with a multidisciplinary team approach – individualized case management with partnerships with community providers of homeless, mental health and substance use.[35]
Nurse Case Management **University of Central Florida**	Case management included referral to primary care physicians, assistance with insurance applications, limiting narcotics, collaboration with PCPs, referrals to social work and community agencies including home health care.[37]
Care Coordination Program **The Northern Hospital**	Linking systems of social, home, and community services and providing services including physiotherapy, occupational therapy, speech pathology, nursing and social work. [24]

Additional intervention models aimed at reducing frequent use include: patient education, internet based referral plans in the ED, post discharge follow up plans, transfer of ED visit information to PCP, and capacity increase in non-ED settings. Again, more robust data are needed to determine which interventions may be effective for a given population.

Policy Recommendations

Given the heterogeneity of the frequent user population, interventions should attempt to assess and then address the underlying reasons an individual may be a high cost user in order to meet individuals' specific needs. Tools including predictive modeling can assist in properly identifying which patients might benefit most from a given intervention.[14] [28] In addition, to fully understand factors contributing to frequent use, it will likely be necessary to interview patients and their families to obtain additional information not available in administrative data.[14]

Intervention Policies*:*

Caution should be used when restructuring payment reform that makes care less accessible for frequent users, including denying payments for readmission and limiting ED use.[14] [29] Given that most often, multiple providers and circumstances affect how patients--especially high-cost frequent users--access care, imposing penalties or just focusing efforts on a single setting such as the ED may be misguided.

***Incentivize care coordination**:*

Reimbursement models designed to reward care coordination and integrated systems of care could improve access, outcomes, and reduce expenditures.[29] It should be noted that effective care coordination requires using appropriate outcome measures. Reductions in ED use can serve as one, but not the only, measurement of intervention success or failure.

Delivery Reform:

Perhaps the best mechanism to guarantee meaningful change is through restructuring of the health care delivery process.[29] Breaking down existing delivery system silos and transforming them into an integrated system, with properly aligned incentives will likely result in reduced expenditures and improved patient outcomes.[29] The ED has a unique position as a portal of entry to care and can serve as a strategic component within the hospital enterprise to model hospital and ideally health system-wide delivery reform.

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