

**Social Needs of Frequent Utilizers of Emergency Department Services at  
Novant Health Forsyth Medical Center  
David H. Priest, MPH Candidate – Fall 2017**

**Background** - Many healthcare organizations strive for excellence in medical care, but less often do they attempt to understand and address the social needs of their patients. These social needs often arise from preventable health disparities placing a disproportionate burden of illness, disease, mortality, suffering, and lack of opportunity on vulnerable populations in our communities. Healthcare organizations are uniquely positioned to identify and address these needs, particularly in individuals who frequently utilize their services. These vulnerable populations are often frequent utilizers of emergency department services.

**Objectives** - This project served as a pilot to clarify and document the social needs of a vulnerable population who frequently seek medical care at the Novant Health Forsyth Medical Center Emergency Department in Winston-Salem, North Carolina. This information can be used to recognize social needs more effectively and to connect these individuals to community resources to address those needs.

**Methods** – Individuals who were eligible for Novant Health’s Financial Assistance Program (primarily uninsured) and represented the highest 5% of utilizers at Novant Health Forsyth Medical Center were identified using revenue cycle information. The reasons for their emergency department visit were cataloged. A social needs screening tool was developed that included questions to assess needs related to food insecurity, utilities, housing, child care, healthcare costs, transportation, healthcare literacy, home safety, mental health, substance use, dental resources, and vision care. The survey was administered telephonically. The protocol was approved by the Institutional Review Board (IRB) of both Novant Health and the University of Florida.

**Results** – A total of 359 individuals were identified. They had utilized the emergency department between 4 and 69 times (mean 5.7) in a consecutive 12 month period between January 2015 and December 2016. The mean age was 38.7 years and 48% were female. In total, they made 2057 visits to the emergency department (this excludes a single outlier who had been 69 times in a 12 month period). The most common reasons for their visits included mental health and substance abuse issues (24%), miscellaneous issues (24%), infections (17%), and pain (13%). Dental needs (2%) were an infrequent reason for presentation to the emergency department. Individuals that had  $\geq 9$  visits to the Emergency Department in a 12 month period were more likely to have a mental health or substance abuse need as the reason for their visit ( $\chi^2 (1, N = 2057) = 128.4, p = 0.00$ )

Forty individuals were contacted using the social needs survey. Thirty-nine individuals completed the survey in its entirety and one individual partially completed the survey. The mean age was 40.2 years and 55% were female. Common social needs reported were mental health and/or substance abuse needs (60%), healthcare cost (57.5%), dental care (55%), and vision care (42.5%). At the time this survey was administered, among those with 4-6 emergency department visits, 43% had acquired health insurance while only 9% of those with  $\geq 7$  visits had acquired health insurance. ( $\chi^2 (1, N = 40) = 7.9, p = 0.005$ )

**Conclusions** – The emergency department at Novant Health Forsyth Medical Center is frequently utilized by individuals with unmet social needs. A higher number of emergency department visits was associated with mental health diagnoses. Mental health and substance abuse needs were frequently reported as unmet social needs among those who took the social needs survey. Interestingly, while dental needs were frequently cited as being unmet, they were not a common reason for presentation to the emergency department. Those with a higher number of emergency department visits were less likely to have subsequently acquired health insurance. In order to address these public health needs, healthcare organizations should operationalize processes that connect patients with social needs to available resources in the community.

## **MPH competencies**

The following MPH competencies were supported by this project:

### **Core Public Health Competencies Addressed by the Special Project**

1. Monitor health status to identify and solve community health problems
2. Diagnose and investigate health problems and health hazards in the community using an ecological framework
3. Inform, educate, and empower people about health issues
4. Mobilize community partnerships and action to identify and solve health problems
5. Develop policies and plans that support individual and community health efforts
6. Link people to needed personal health services and assure the provision of health care when otherwise unavailable
7. Evaluate effectiveness, accessibility, and quality of personal and population-based health service

### **Public Health Practice Competencies Addressed by the Special Project**

1. Explain and communicate current epidemiologic and public health problems for informing scientific, ethical, economic and political discussions of health problems
2. Understand and apply the principles of community participation in public health interventions
3. Demonstrate an understanding of health disparities in the US and the underlying role of power differentials to disparities
4. Apply principles and methods of strategic and program planning in public health context

## **Public Health Relevance**

This project illustrates the social needs of frequent utilizers in the emergency department. These social needs are endemic in many communities so that addressing them is of great importance to the overall health of local communities. This is particularly true in areas with a greater number of health disparities.



# Social Needs of Frequent Utilizers of the Emergency Department at Novant Health Forsyth Medical Center

David H. Priest, MD



## BACKGROUND

- Many healthcare organizations strive for excellence in medical care but less often attempt to understand and address the social needs of their patients.
- These social needs often arise from preventable health disparities placing a disproportionate burden of illness, disease, mortality, suffering, and lack of opportunity on vulnerable populations in our communities.
- Healthcare organizations are uniquely positioned to identify and address these needs, particularly in individuals who frequently utilize their services.
- These vulnerable populations are often frequent utilizers of emergency department (ED) services.

## OBJECTIVE

This project serves as a pilot to clarify and document the social needs of a vulnerable population who frequently seek medical care at the Novant Health Forsyth Medical Center (NH/PMC) Emergency Department in Winston-Salem, North Carolina.

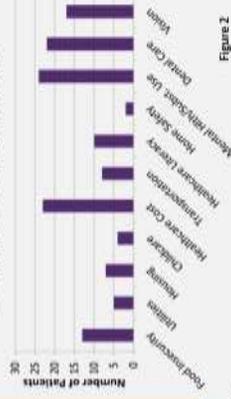
## METHODS

Individuals eligible for the NH Financial Assistance Program\* and among the highest 5% of utilizers at NH/PMC were identified using revenue cycle information. The reasons for their ED visits were cataloged (Figure 1). A social needs screening tool was developed that included questions to assess needs related to food insecurity, utilities, housing, child care, healthcare costs, transportation, healthcare literacy, home safety, mental health, substance use, dental resources, and vision care. The survey was administered telephonically. The protocol was approved by the Institutional Review Board (IRB) of both Novant Health and the University of Florida.

## RESULTS

- 359 patients (2057 total ED visits)
- Mean age 38.7, 48% female, Range of visits 4-69 in a 12 month period (mean 5.7)
- 40 surveys given. Social needs noted (Figure 2)
- Patients were uninsured or underinsured at the time of their ED visit but at the time of their survey 17 of 40 (45%) had some type of health insurance.
- Persistent lack of health insurance was associated with having  $\geq 7$  visits to the ED in a 12-month period. [X<sup>2</sup> (1, N = 40) = 7.9, p = 0.005]

### Social Needs of Surveyed, N= 40



### Reasons for ED Visit by # of visits, N= 359

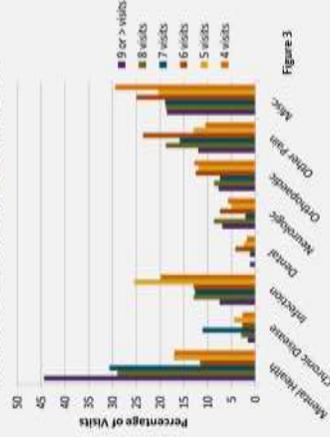


Figure 1

\*Includes one patient with 69 visits/12 months

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## SUMMARY

- Frequent utilizers of the ED often have complex social and medical vulnerabilities.
- Frequent utilizers in this study were younger individuals who most often presented to the ED because of mental health or substance abuse needs, miscellaneous medical needs, pain issues, and infections.
- Survey participants reported that the cost of healthcare and mental health needs were frequent social needs.
- Many individuals said that they did not have vision or dental resources although this was seldom a reason for an ED visit.
- A higher frequency of ED visits was associated with having a mental health or substance use need on presentation.
- Those with a higher frequency of ED visits were less likely to have obtained insurance at the time of survey.
- Health systems should review local social needs to improve services that meet those needs, particularly those related to mental health and financial assistance.
- A more rigorous public health safety net for dental and vision services is needed.

## REFERENCES

1. Pines J, et al. Acad Emerg Med. 2011;18(6).
2. Doran K, et al. Am J Manag Care. 2015;20(11):e506-e514.
3. CDC. MMWR. 2013, June 14.
4. Brennan J, et al. Acad Emerg Med. 2014;21(9):1015-1022.
5. Ehrlich and Gabelin D. J Health Manag. 2013;5(6):412-428.
6. Van den Heede K, et al. Health Policy. 2016;120:1337-1349.

Disclosure: Authors of this presentation have nothing to disclose concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation.

