

A Report On Frequent Users Of Hospital Emergency Departments in South Carolina



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The mission of the South Carolina Public Health Institute (SCPHI) is to promote evidence-based policies, strategic prevention efforts and effective leadership designed

to improve the public's health now and in the future. As part of its mission, SCPHI examines public health challenges facing our state and communicates

evidence-based information on issues affecting the public's health.



A Report On Frequent Users Of Hospital Emergency Departments in South Carolina

Introduction

Emergency Departments (EDs) serve as important community resources and are an important source of patients and revenue for hospitals. EDs across our state and the country are under strain because of increased utilization, as they are increasingly used for care that should occur in a primary care setting. Inappropriate use of the ED is often linked to those who use them repeatedly. Frequent, repeated use of the ED by individual patients can have a negative effect on their quality of care.

This report examines frequent users of EDs in South Carolina. Frequent users are defined as people who visit an ED in the state five or more times in one calendar year. This report also includes data analysis and information from interviews with hospital staff around the state. The purpose of the analysis is to explore how EDs are used, describe the characteristics of frequent users of EDs, understand why they are frequent users, and propose potential solutions to the issue.

Who Are Frequent ED Users? A Portrait Of The Frequent User

Frequent users have been defined as “people of modest means and poor health who go in and out of emergency rooms day after day, their fundamental health issues rarely resolved, at a tremendous and ever-growing cost to hospitals, municipalities and taxpayers.”¹ Several representatives of South Carolina hospitals indicated during one-on-one interviews that people with chronic conditions who do not take their medication as instructed comprise a large proportion of their frequent users.

Many Americans lack timely access to outpatient care in other settings because of a weakened primary care system and a shortage of primary care providers in many areas,³ and EDs are convenient (always open, can't turn patients away before screening, and typically accessible by public transportation or ambulance).³⁻⁵ Therefore, EDs are often the primary care provider for those without a medical home, the uninsured, those unwilling or unable to wait until physician office hours, and those who are unable to access a regular primary care provider (typically Medicaid and uninsured patients), although at least one analysis suggests that people with and without a medical home are equally likely to use the ED multiple times in a year.⁶

“Every ED has a panel of patients, well known to the staff as ‘frequent flyers,’ who visit regularly because of complications of homelessness, alcoholism, sickle cell disease, asthma, migraine, and the like.”²

Frequent users are often blamed for ED crowding because it is assumed that their use is inappropriate;⁷ however, there is evidence that these patients simply need more care and that they use the ED because they lack a medical home.^{5,7} Frequent users are more likely to be in poor physical and/or behavioral health,⁷⁻⁹ use more healthcare in general (besides the ED),^{1,7} and have family incomes below the poverty threshold.⁶⁻⁷ Insurance status, race, and ethnicity were minor determinants of ED use in one study.¹ One source stated that “Patients with non-urgent problems represent only 12 percent of all emergency visits nationally, and they cost the least to treat both in terms of time and resources. It is frankly absurd to blame overcrowding in any emergency department on such a small number of people.”¹⁰

According to the New England Healthcare Institute (NEHI), people covered by private insurance or Medicare are just as likely to over-use the ED as the uninsured or those covered by Medicaid.³ One study found that “Contrary to common perceptions, individuals who lack a usual source of care are actually less likely to be frequent users than those who have a usual source of care.”⁷ The American College of Emergency Physicians states that frequent users are “predominantly white, insured, and a greater risk for hospitalization due to serious illness.”⁹ Another study found that most (73%) of frequent users had a regular place for medical care other than the ED, that only about a third reported difficulty accessing a primary care physician, and that uninsured patients were less likely to be frequent users than Medicaid patients.¹¹

Why Repeated ED Use Is A Problem

There are several reasons why repeated use of the ED is not ideal for the patient or for the health care system. EDs are not designed to coordinate care^{4, 12} or promote prevention and compliance.³ Significant numbers of non-urgent cases can lead to over crowded EDs and have an impact on those with emergencies.^{4, 12}

Hospitals face increasing capacity and resource constraints related to the use of their EDs¹³ and frequent users have a significant effect on these constraints. The ED is a very expensive environment for care.^{4, 13} According to NEHI, an estimated \$32 billion is wasted each year in the U.S. on inappropriate use of EDs – the same treatment from a primary care physician costs half to a fifth as much as in an ED.^{3, 14} Reasons for this include different staffing levels and levels of technology, the prevalence of treatment aimed at preventing litigation, and the fact that care in the ED is episodic.²

Data Summary

South Carolina Data:

- Overall ED utilization rates in South Carolina are increasing significantly faster than national averages.¹⁵⁻¹⁶
- The average total cost per patient incurred by frequent ED users in South Carolina is over 15 times higher than the average cost per patient of non-frequent users.¹⁶
- Behavioral health and mental illness have a major impact on South Carolina EDs in terms of visits and costs.
- Visits by frequent users comprise 21% of all visits to EDs, 10% of all costs incurred in EDs, and 5% of patients in the ED.¹⁶

Inappropriate Use of EDs:

- Nationally, the proportion of non-urgent ED visits has increased over the last decade^{4, 13} and is estimated to be as high as 50%.³ Excluding visits with a primary diagnosis of a behavioral health condition, preventable* visits comprise nearly one-fifth of all ED visits in South Carolina.¹⁶
- Frequent users are often blamed for ED over-crowding because it is assumed that their use is inappropriate;⁷ however, there is evidence that these patients simply need more care and that they use the ED because of the lack of a medical home.^{5, 7} They visit the ED because they have no place else to go for care.

*Preventable visits represent conditions for which good outpatient care can potentially prevent the need for hospitalization or for which early intervention can prevent complications or more severe disease. The codes identifying preventable visits were established by the Agency for Healthcare Research & Quality (AHRQ) and are known as prevention quality indicators (PQIs). Please visit http://www.qualityindicators.ahrq.gov/pqi_overview.htm for more information.

Insurance Status:

- Nationally, patients with private insurance constitute the largest and most quickly growing group of ED users.^{5, 15}
- Nationally, in one study, people covered by private insurance or Medicare are just as likely to over-use the ED as are the uninsured or those covered by Medicaid,³ although other data show that Medicaid patients are more likely than other groups to have multiple ED visits.⁶
- In South Carolina, frequent users of EDs are more likely to be Medicare, Medicaid, or Self Pay/Indigent than patients who are not frequent users.¹⁶

Major Trends In ED Utilization

Visit rates: Nationally and in South Carolina, ED visits are rising significantly faster than population growth. The utilization (or visit) rates in South Carolina are increasing at significantly higher rates than national averages and the South has the highest visit rate (47.4 per 100 persons compared to 41.0 per 100 persons nationally in 2006) of any region in the U.S.¹⁵ Between 1996 and 2006, the number of visits nationally rose by a third (32%), representing an average increase of 2.9 million visits per year.¹⁵ South Carolina experienced a 50% increase during the same time period.¹⁶ The visit rate in South Carolina was 45.0 in 2006 and 45.4 in 2008.¹⁶

Age and race: Nationally and in South Carolina, the age groups with the highest ED utilization are infants and people age 75 or older.¹⁵⁻¹⁶ The rate for 19-44 year olds is significantly higher than the remaining age groups largely because of pregnancy complications and urinary tract infections (UTIs) among females.¹⁶ Nationally, African-Americans visit EDs twice as much as whites, but being Hispanic does not relate to increased ED use.¹⁵ In South Carolina, the ED utilization rate for African-Americans is significantly higher than for whites but data that identifies those of Hispanic origin specifically is not available.¹⁶

South Carolina ED Utilization Rates (Visits per 100 people) by Age/Race

Age	2008 Rate	Race	2008 Rate
All Ages	45.4	White	37.0
< one year	80.8	African-American	63.6
1-12	36.6	Other*	65.3
13-18	36.0		
19-44	53.0		
45-64	38.4		
65-74	38.3		
75+	73.1		

*Includes Hispanic

Insurance status: Nationally, patients with private insurance are the largest and most quickly growing group of ED users;^{5, 15} however, one study found no difference in ED use between people with or without private insurance when health and environmental factors such as access to primary care providers are held constant.⁵ Another recent study found that Medicaid patients are more likely to have multiple ED visits than those with private insurance or the uninsured, likely because of the lack of primary care providers who see Medicaid patients.⁶ People on Medicaid may not have other choices and must visit the ED for care.

Non-urgent and preventable visits: Nationally, the proportion of non-urgent visits has increased over the last decade^{4, 13} and is estimated to be as high as 50%,³ although other sources indicate they represent a much lower proportion of visits (12%).¹⁰ Excluding visits with a primary diagnosis of a behavioral health condition, nearly one-fifth of all ED visits in SC are preventable.¹⁶

Frequent Users With Behavioral Health Conditions

Behavioral health issues and substance abuse contribute significantly to frequent ED visits. In one national study, more than half of patients that were frequent users of ED services had a primary or secondary diagnosis of a mental health condition or substance abuse disorder, compared with 12% of non-frequent users.¹ In South Carolina, 23% of visits by frequent users have a primary, secondary, or tertiary behavioral health diagnosis (compared to 14% for non-frequent users). Forty-four percent (44%) of ED visits in South Carolina by frequent users are by patients who have had a behavioral health diagnosis at some point in time.¹⁶

Several national studies have shown that a small number of patients make up a large number of emergency psychiatric visits and that schizophrenia is the most common diagnosis of frequent ED users with a behavioral health diagnosis.¹⁷⁻¹⁹ In South Carolina, the most common behavioral health diagnoses for ED patients are anxiety and depression.¹⁶

One challenge for patients with behavioral illnesses using EDs is that these facilities are not designed or staffed to handle their needs, but these patients may have no where else to receive care. Also state-funded mental health facilities and departments of mental health are experiencing budget crises, making them unable to handle existing demand for services [the South Carolina Department of Mental Health's state appropriations were reduced by \$50.3 million (23%) between June 2008 and December 2009²⁰]. Because of low reimbursement rates, private and state hospitals have been decreasing their number of psychiatric beds. The capacity issue for inpatient psychiatric services often leads to patients with behavioral illness spending long periods of time in hospital EDs until a bed can be identified and they can be admitted.¹³

“We are the safety net for vulnerable populations and often end up holding patients with behavioral health illnesses that are dropped off by law enforcement or families. Our typical frequent flyer is a 30 year old male with a mental health illness. We have a program to work to connect patients with an appropriate medical home so that their use of the ED will decline.”

- Cheryl O'Hara, Director of Emergency Services at Spartanburg Regional Medical Center

Dr. Bill Gerard, an emergency room physician at Palmetto Health Richland, reflects on the impact of behavioral health issues in the ED: “We’re so fatigued; we’re just trying to deal with it. We don’t see any hope of any help coming... People are beginning to accept that this is the way it is, and this is not the way it should be.”

Frequent Users And Staffing Issues In The ED

Misperceptions about frequent users of EDs can lead to issues affecting quality of care. As Tony Derrick with McLeod Regional Medical Center put it, “I am concerned about the effects of frequent flyers on staff behavior. When people repeatedly use the ED, it sends up red flags to the staff and affects their perceptions of our patients.”

Another large hospital serving a multi-county rural area in South Carolina performed an analysis and realized that 200 patients accounted for 5,000 ED visits in one year. According to a member of the hospital’s administration, “The most common diagnosis for a frequent user of our ED is pain; the second most common is a mental health diagnosis. When patients come in with pain management

issues, physicians and staff can be somewhat resistant to providing needed medication. We need standardized protocols, because now each physician group or facility may handle pain management issues differently. We also need to implement assessment tools to get around the stereotypes and how they affect patient care. There is a feeling that sometimes patients come to the ED just to get off the street and to seek attention. Sometimes they just need to socialize.”

Another large urban hospital system in our state reports that physicians and nurses frequently complain about the habitual use of the ED by some individuals, but won't tell the patient to see their physician next time (for non-urgent situations). They are worried about a negative effect on their patient satisfaction scores, which are tied to their annual evaluations and raises. The patient leaving happy is important to satisfaction scores and this can also have an effect on the interaction between physicians and patients with drug-seeking behavior.

South Carolina Data

Admission Rates: The overall admission rate from the ED in South Carolina is 12%; for patients with a primary diagnosis of a behavioral health condition it is 15%.

Preventable Visits: Almost one in five visits to an ED in South Carolina is preventable. Frequent users and non-frequent users are equally likely to make preventable visits to the ED. This excludes ED visits resulting in admission or death, or with a primary diagnosis of a behavioral health condition, which are not considered preventable visits.

Behavioral Health: Behavioral illnesses have a major impact on South Carolina EDs. Of ED visits by frequent users that do not result in admission or death, **44% are by patients who have had a behavioral health diagnosis at some point in time.** This varies from a low of 31% in Dorchester County to a high of 60% in Pickens County. There is no significant variation by trauma center designation.

There is a secondary behavioral health diagnosis 43% of the time when there is a primary diagnosis of behavioral health and the most common secondary diagnoses are tobacco disorder (26%), depressive disorder (9%), alcohol abuse (6%), anxiety (6%), and bipolar disorder (5%).

Costs: The costs incurred by frequent ED users in South Carolina are significant. Excluding visits resulting in admission or death and visits with a primary diagnosis of behavioral health, the average cost of an ED visit is \$2,753. **Frequent users account for 10% of all costs (and 5% of patients) in the ED. The average annual cost per patient is \$89,033 for frequent users per year compared to \$5,700 for non-frequent users.**

Insurance Status: Excluding visits resulting in admission or death and visits with a primary diagnosis of behavioral health, **frequent users are more likely to be Medicare, Medicaid, or Self Pay/Indigent and non-frequent users are more likely to be privately insured.**

The above data provided by the South Carolina Budget and Control Board Office of Research and Statistics

* As noted, several of the analyses of South Carolina data exclude visits resulting in admission or death. This was done in an effort to focus on outpatient utilization of EDs.

Insurance Status of Patients Visiting SC EDs

All visits except Admissions and Deaths	Insurance	Medicare	Medicaid	Self Pay/ Indigent	Total
All Patients SC	33.0%	15.1%	22.9%	29.0%	100%
Frequent Users SC	20.8%	17.1%	29.2%	33.0%	100%
Non-Frequent Users SC	36.1%	14.6%	21.3%	28.0%	100%

Excluding visits resulting in admission or death, for visits with a **primary diagnosis of behavioral health, patients are more likely to be Medicare or Self Pay/Indigent** than patients who do not have a primary diagnosis of a behavioral health condition. **Frequent users with a primary diagnosis of a behavioral health condition are more likely to be Medicare or Medicaid** patients and non-frequent users with a primary diagnosis of a behavioral health condition are more likely to be insured.

Insurance Status of Behavioral Health Patients Visiting SC EDs

Primary Diagnosis of Behavioral Health	Insurance	Medicare	Medicaid	Self Pay/ Indigent	Total
All Patients	24.9%	18.2%	18.8%	38.2%	100%
Frequent Users	15.4%	21.2%	24.6%	38.9%	100%
Non-Frequent Users	29.3%	16.7%	16.0%	37.9%	100%

Proportion of ED Visits by Frequent Users: Excluding visits resulting in admission or death, 21% of visits are by frequent users (who comprise 5% of patients). The proportion of visits by frequent users does not vary significantly by trauma center designation (see Appendix A for an explanation of Trauma Center level designations).

Diagnoses: Nationally, the most common diagnoses for patients visiting the ED include injuries, poisonings, ill-defined conditions, and diseases of the respiratory system.¹⁵

Note: A list of the top 20 primary diagnoses for South Carolina ED visits (excluding visits with a primary diagnosis of behavioral health and visits resulting in admission or death) for frequent and non-frequent users of all ages and for frequent users by age, as well as the most common behavioral health diagnoses in South Carolina's EDs is provided in Appendix B.

Possible Solutions To Inappropriate ED Use

In South Carolina and across the country, some hospitals are trying to help patients establish medical homes with primary care providers to prevent the repeated use of the ED for episodic care and management of chronic conditions, sometimes targeting frequent users. For example, Allendale County Hospital reports helping patients make follow-up appointments with their physicians while they are still in the ED.

Greenville Memorial Hospital added a nurse in the ED about two years ago to serve as a patient advocate to help patients establish a medical home in the community by linking them to private physicians, free clinics, and community health centers for care. Now there are two staff in this capacity for patients with medical issues and four staff in place for patients with mental health issues. This solution can be difficult because

health centers and clinics have long wait times, especially for new patients or those needing specialty care. In addition to connecting these patients with community resources, the social workers also try to educate them about appropriate use of the ED. The program has produced a community health resource booklet, which lists resources for patients with and without private insurance and those with Medicaid and Medicare.

Another program within South Carolina that has proven success in preventing unnecessary and/or repeat use of the ED is Welvista, a private-public partnership that provides donated medications to the uninsured. A recent analysis by the Office of Research and Statistics of the South Carolina Budget and Control Board demonstrated that the program cuts ED use by 48% for patients on pharmaceuticals for hypertension, by 44% for patients on psychotropic drugs, and by 25% for patients on medication to manage their diabetes.²¹

Expanding office hours and availability of primary care and behavioral health services and providing care management services for frequent users are also approaches to easing the burden on EDs. As one Nurse Manager noted, “We need more doctors with expanded hours.” Promotion of telemedicine, particularly for patients with behavioral health diagnoses, is another solution currently being promoted in South Carolina.

Other suggestions include establishing more low-cost retail clinics, increasing the allied professional workforce to provide primary care (this includes nurse practitioners, physician’s assistants, and medical technicians), and taking advantage of new technologies to link patients with health information.¹⁴

Conclusions

Frequent use of the ED is a symptom of broader systemic problems with the health care system. “High ED utilization may not be an ‘abuse’ of the ED by most patients, but rather an indicator that the health care needs of these patients have not been met in their usual primary care setting.”¹¹

The significant issue is that there are “substantial numbers of Americans, particularly those with behavioral illness and substance abuse disorders, with unmet health needs who use the ED because of its convenience, accessibility, and affordability.” A review of statewide data shows that this clearly is a problem for South Carolina EDs.

As the Patient Protection and Affordable Care Act (PPACA) is implemented on the state level, keeping these issues at the forefront will keep the focus on improving health care access for all South Carolinians. Many assume that the new health care legislation will alleviate the overcrowding of America’s EDs, but just the opposite could be the case if plans are not made to deliver efficient, cost-effective, appropriate care to the newly insured. When Massachusetts implemented health care coverage for all, ED visits increased by seven percent with a corresponding increase in costs of 17 percent.¹⁴

The policy goal should be to focus on accessible, convenient care for all patients in the most appropriate settings including disease prevention, injury prevention, and chronic disease case management; this will lead to better overall health and therefore fewer ED visits, especially by frequent users in poor health.

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Appendix A: Notes About Data

Frequent User:

There is no consistent quantifiable definition in the literature for a frequent user of ED services; however, this research on South Carolina defines frequent users as patients who make five or more visits to an Emergency Department in South Carolina during the 12 month period of analysis (calendar year 2008).

Preventable Visit:

The codes identifying preventable visits were established by the Agency for Healthcare Research & Quality (AHRQ) and are known as prevention quality indicators (PQIs). Please visit http://www.qualityindicators.ahrq.gov/pqi_overview.htm for more information.

Trauma Levels:

Trauma I is the highest level of Trauma Center with the most advanced technology and staffing levels. A Level I Trauma Center is a regional resource center and generally serves large cities or population-dense areas. Generally, these trauma centers are attached to medical schools or have residency programs because of the requirement that they have in-house anesthesiology and general surgery capabilities.

Level II Trauma Centers have extensive capabilities and meet the needs of most trauma patients. Level II Trauma Centers provide comprehensive trauma care in two distinctive environments that have been recognized in the ongoing verification program. The first environment is a population-dense area where a Level II trauma center may supplement the clinical activity and expertise of a Level I institution. The second Level II environment occurs in less population-dense areas. The Level II hospital serves as the lead trauma facility for a geographic area when a Level I institution is not geographically close. There is only one Level II in the state (AnMed), so Levels II and III are grouped together in this analysis.

Level III Trauma Centers are committed to caring for the trauma patient and provide prompt assessment, resuscitation, emergency operations, stabilization, and possible transfer to a facility that can provide more advanced trauma care. For many areas, a Level III Trauma Center represents an important part of the trauma system. A Level III Trauma Center has the capability to initially manage the majority of injured patients and has transfer agreements with a Level I or Level II Trauma Center for patients whose needs exceed their resources. Although the specialist and equipment requirements are not as strict for Level III Trauma Centers, these hospitals must provide prompt general surgical and trauma team response to trauma alerts, and care of the trauma patient is monitored by strict quality standards.

Not all hospitals that have an ED are trauma centers and not all hospitals have an ED.

**All ages/
Non-Frequent Users**
(Preventable Visits in Bold)

Upper Respiratory Infection
Urethra or Urinary Tract Disorder
Chest Pain
Ear Infection
Abdomen or pelvic pain
Acute Sore Throat
Headache
Neck Sprain
Acute Bronchitis
Gastroenteritis
Chest Tightness
Contusion of Face, Scalp, or Neck
Viral Infection
Lower Back Pain
Fever
Sprain or Strain of Ankle/Foot
Open Wound on Finger
Vomiting
Lower Back Sprain
Painful Respiration
Limb Pain
Bronchitis
Fainting/Collapse
Pneumonia
Asthma

**All ages/
Frequent Users**
(Preventable Visits in Bold)

Abdomen or pelvic pain
Headache
Lower Back Pain
Migraine
Urethra or Urinary Tract Disorder
Chest Pain
Upper Respiratory Infection
Backache
Acute Bronchitis
Ear Infection
Acute Sore Throat
Limb Pain
Lower Back Sprain
Dental Disorder
Chest Tightness
Painful Respiration
Abdominal Pain
Asthma
Sickle Cell Anemia
Neck Sprain
Gastroenteritis
Vomiting
Bronchitis
Nausea with Vomiting
Pregnancy Complications

**Under 12 months/
Frequent Users**
(Preventable Visits in Bold)

Upper Respiratory Infection
Ear Infection
Fever
Vomiting
Viral Infection
Acute Bronchiolitis
Gastroenteritis
Pneumonia
Digestive Disorder
Diarrhea
Rash
Conjunctivitis
Thrush
Fever
Diaper Rash
Cough
Acute Bronchitis
Nasal Cavity/Sinus Disease
Esophageal Reflux
Observation Following Auto Accident
Observation For Suspected Conditions
Contusion of Face, Scalp, or Neck
Dermatitis
Influenza
Abdomen or pelvic pain

**Age 1-12/
Frequent Users**
(Preventable Visits in Bold)

Bronchitis
Upper Respiratory Infection
Fever
Acute Sore Throat
Viral Infection
Asthma
Vomiting
Pneumonia
Gastroenteritis
Acute Bronchitis
Contusion of Face, Scalp, or Neck
Abdomen or pelvic pain
Strept/Sore Throat
Fever
Asthma
Bronchitis
Rash
Urethra or Urinary Tract Disorder
Cough
Convulsions
Diarrhea
Conjunctivitis
Nausea with Vomiting
Digestive Disorder
Abscess on Buttock

**Age 13-18/
Frequent Users**
(Preventable Visits in Bold)

Urethra or Urinary Tract Disorder
Acute Sore Throat
 Abdomen or pelvic pain
Upper Respiratory Infection
 Headache
 Pregnancy Complications
Gastroenteritis
Acute Bronchitis
 False Labor
 Viral Infection
 Sprain or Strain of Ankle/Foot
 Lower Back Pain
 Sickle Cell Anemia
Asthma
 Genitourinary Tract Infection in Pregnancy
 Abdominal Pain
 Migraine
 Unspecified Symptom Associated with Female Genital Organ
 Neck Sprain
 Vomiting
 Threatened Abortion
 Nausea with Vomiting
 Pregnancy Complications
 Backache
 Chest Pain

**Age 19-64/
Frequent Users**
(Preventable Visits in Bold)

Headache
 Abdomen or pelvic pain
 Migraine
 Lower Back Pain
Urethra or Urinary Tract Disorder
 Chest Pain
 Backache
Dental Disorder
 Lower Back Sprain
Acute Bronchitis
 Limb Pain
 Chest Tightness
 Painful Respiration
 Sickle Cell Anemia
 Neck Sprain
 Abdominal Pain
Upper Respiratory Infection
Acute Sore Throat
Asthma
Gastroenteritis
 Bronchitis
 Pregnancy Complications
 Nausea with Vomiting
 Convulsions
 Chronic Pain

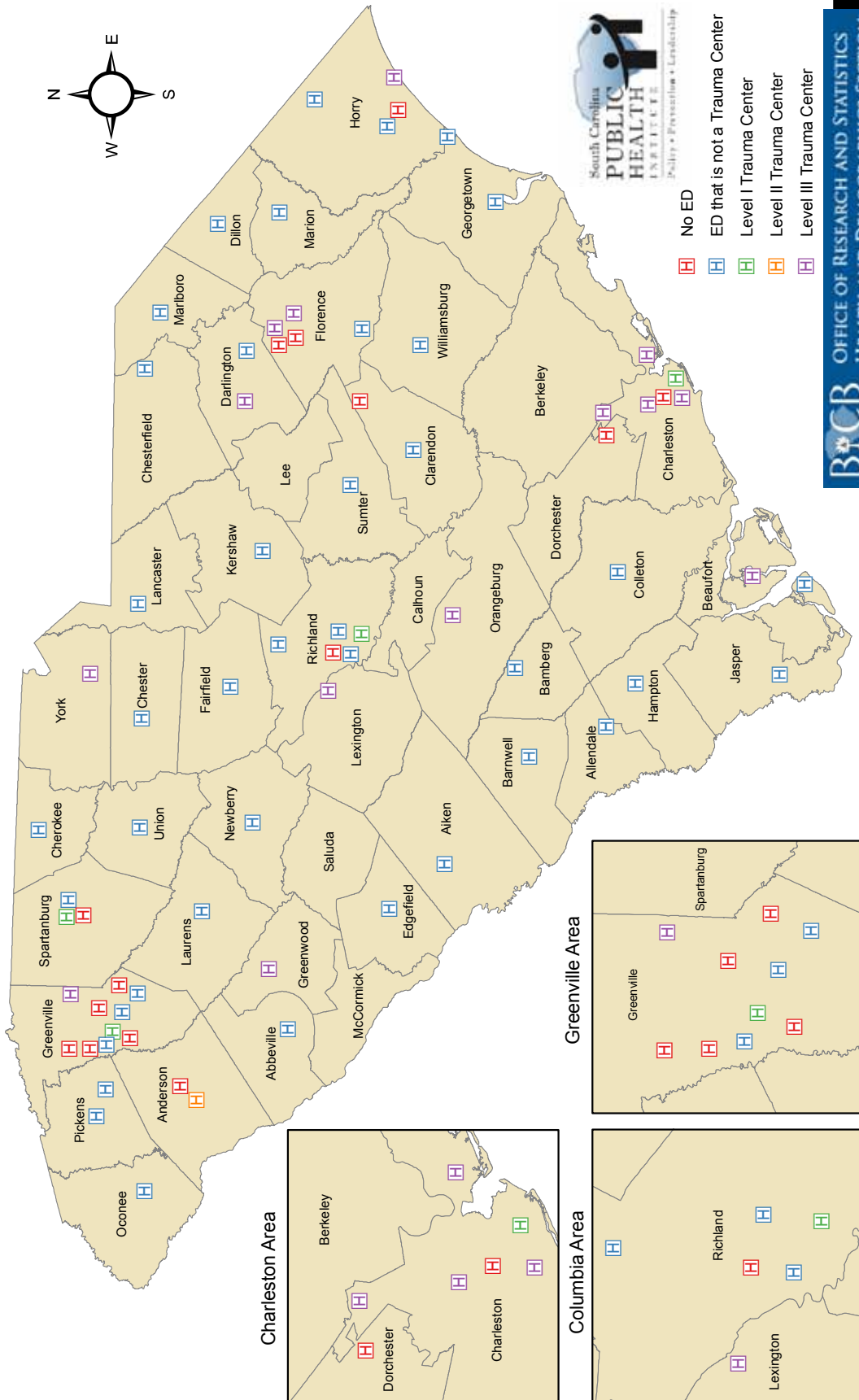
**Age 65+/
Frequent Users**
(Preventable Visits in Bold)

Urethra or Urinary Tract Disorder
 Chest Pain
 Abdomen or pelvic pain
Exacerbation of COPD
 Malaise/Fatigue
 Chest Tightness
 Headache
Heart Failure
 Lower Back Pain
 Digestive Disorder
Hypertension
 Limb Pain
 Dizziness
Complications from Diabetes
Acute Bronchitis
 Respiratory Distress
 Backache
 Painful Respiration
 Retention of Urine
 Contusion of Face, Scalp, or Neck
 Bronchitis
 Fainting/Collapse
 Pneumonia
Dehydration
Abdominal Pain

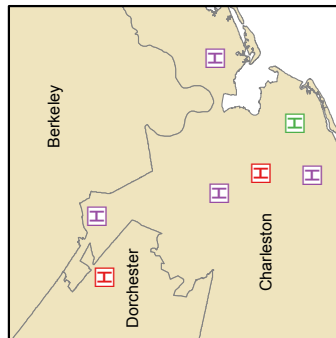
Top ten behavioral health diagnoses for frequent users with a primary diagnosis of behavioral health:

Anxiety
 Depressive Disorder
 Alcohol Abuse
 Drug Abuse
 Panic Disorder
 Schizophrenia
 Tension Headache
 Psychosis
 Bipolar Disorder
 Drug Withdrawal

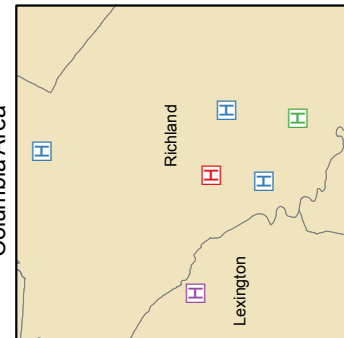
South Carolina Hospitals by ED Category



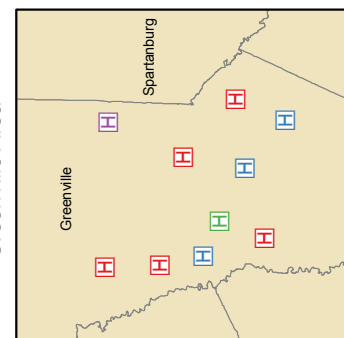
Charleston Area



Columbia Area



Greenville Area



Note: Hospital data is from DHEC Division of Health Licensing, and hospitals are not in their exact geographic location.

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ED Category Legend:

- No ED (Red H)
- ED that is not a Trauma Center (Blue H)
- Level I Trauma Center (Green H)
- Level II Trauma Center (Orange H)
- Level III Trauma Center (Purple H)



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