CHART

Center for Health Analytics, Research & Transformation at NJHA

A BROADER VIEW:

Mental Health, Substance Misuse and Suicide Crisis Extends Beyond Traditional Hot Spots

To health!

NJHA

CENTENNIAL 1918 - 2018

Introduction

Demands for mental health services, along with the inappropriate use of pharmaceutical and street substances, have been growing at an alarming rate. The recent attention to mental health and suicide is long overdue. Policy makers, state and federal lawmakers, community and social service agencies and healthcare providers must work together to define the problem and partner to implement creative solutions to mitigate it. This study is a close evaluation of hospital emergency department data that aids in painting a picture of the scope of this issue in New Jersey. It also begins to quantify problematic areas of the state previously thought to be less impacted than the urban and shoreline epicenters of this health crisis.

New Jersey, like most states across the nation, is faced with limited resources to ensure that services are situated in appropriate areas and that funding is prioritized to ensure timely access to care. Calls for sweeping reforms have been stymied by contradictory and competing policy and payment structures, and often times attention and focus come only during high-profile dire events, placing equally important issues in the queue for attention, priority and funding.

NJHA believes that to achieve meaningful reform, analytics need to be augmented from static volume reporting and also incorporate metrics that reflect pace-of-change over time. This study supports the notion that a broader view is needed beyond the traditional high volume areas, examining areas at high risk for a growing crisis. Armed with this data, stakeholders can work together on building proactive interventions to safeguard the community rather than reacting in times of crisis.

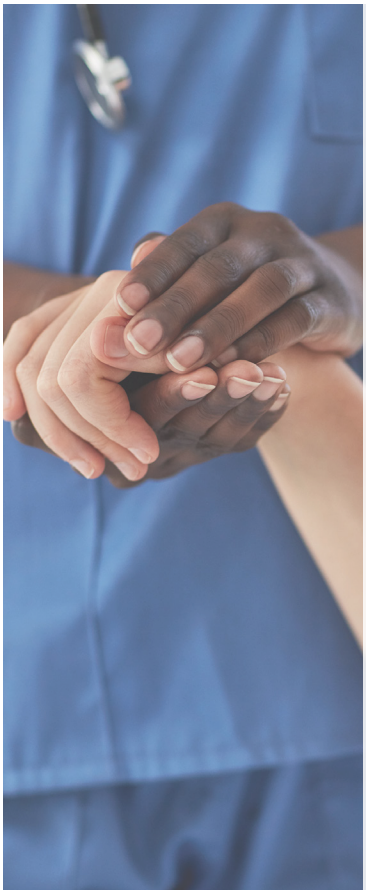
In an effort to sustain the focus on this issue, NJHA's Center for Health Analytics, Research and Transformation (CHART) has performed an in-depth evaluation of mental health claims based on Uniform Bill data, with a dual goal of determining the geographic magnitude of the crisis in New Jersey, while at the same time identifying areas where strategic placement of services may lead to improved care coordination.

Analysis

Staff from CHART analyzed hospital emergency department mental health claims data for 70 of the state's 71 acute care hospitals including a sub-focus on substance use disorder and self-harm data. The patient claims data were evaluated from three perspectives:

1. Volume of raw activity
    a. Presentation of a patient in a hospital emergency department
2. Use rates per 1,000 population
3. Five-year growth rate 2013-2017

Data were first analyzed where a mental health, substance use or self-harm diagnosis was present in any of the 25 diagnosis codes captured on the patient's record. Therefore, the data include patients for whom mental health, substance use or self-harm was an underlying condition, but played a role in the emergency department visit.

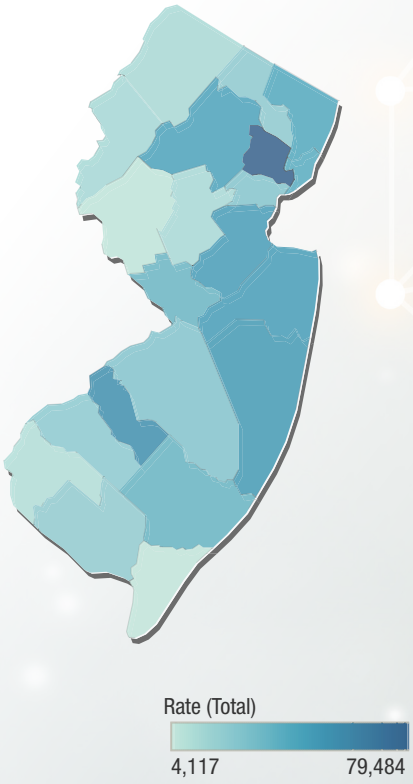


A broader view of the data shows a growing map of New Jersey counties at high risk in an expanding public health challenge. These at-risk locales are not always the traditional hot spots that many people expect to see at the epicenter of New Jersey's mental health and substance use disorder crisis.

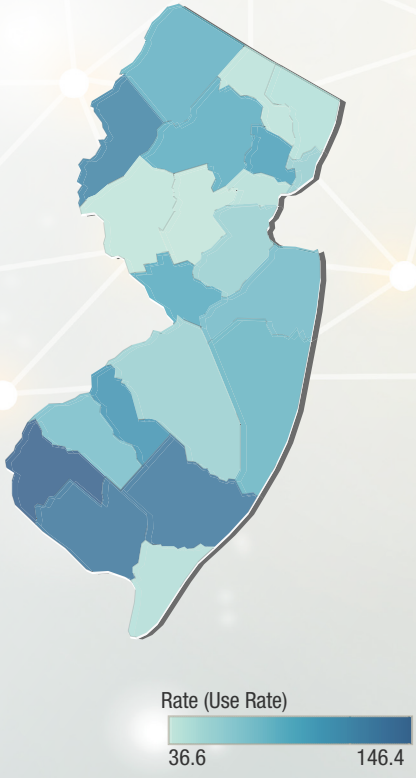
Findings

All Mental Health Activity by County (County where services were provided):

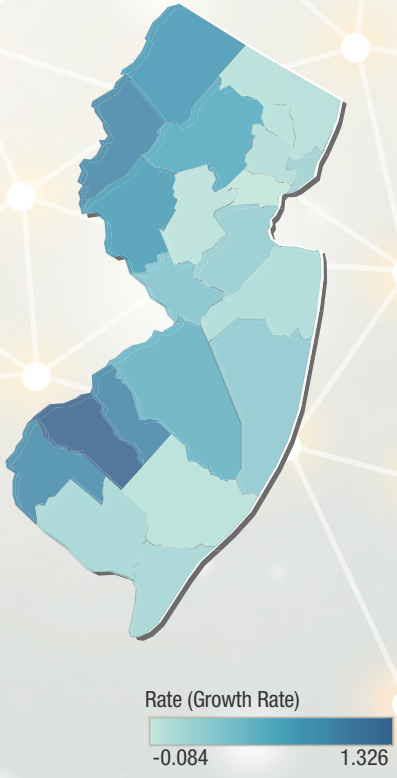
Total Emergency Department Mental Health Visits 2017



Use Rate per 1,000 Population Emergency Department Mental Health Visits 2017



Growth Rate Emergency Department Mental Health Visits 2013 – 2017



COUNTY	TOTAL VISITS
Essex	79,484
Camden	54,731
Ocean	48,826
Monmouth	47,680
Middlesex	47,251

COUNTY	USE RATE
Salem	146.42
Cumberland	130.26
Atlantic	129.09
Warren	119.68
Camden	107.16

COUNTY	GROWTH RATE
Gloucester	132.57%
Warren	98.82%
Camden	98.47%
Salem	92.79%
Sussex	80.50%

A broader view of the data shows a growing map of New Jersey counties at high risk in an expanding public health challenge. These at-risk locales are not always the traditional hot spots that many people expect to see at the epicenter of New Jersey's mental health and substance use disorder crisis.

The data clearly show that the largest volume of mental health emergency department visits are located in the urban and coastal counties of Essex (79,484 ED visits), Camden (54,731), Ocean (48,826), Monmouth (47,680) and Middlesex (47,251) counties, as expected. However, raw volume only partially identifies the hot spots of concern in New Jersey. Use rates (the number of mental health emergency department visits per 1,000 population) and the growth rate in raw volume over a five-year period (2013-2017) identify other geographic areas of the state that are also in need of attention as policy makers and healthcare providers combat this crisis.

CHART's analysis uses Uniform Bill Data to help paint a picture of emergency department visits for mental health diagnoses, as either a primary or secondary diagnosis, from 2013 to 2017.

The top five counties for emergency department visits for the purpose of a mental health condition, when measured by visits per 1,000 population, are Salem (146.42 mental health ED visits per 1,000 population), Cumberland (130.26), Atlantic (129.09), Warren (119.68) and Camden (107.16). While Essex County has the highest 2017 raw volume of 79,484 visits, Salem's rate of emergency department visits per 1,000 population is 49 percent greater than Essex.

Finally, the rate of growth in raw volume over five years is also a key indicator of magnitude. The top five counties from a rate of growth perspective are Gloucester (+132.57%) which has seen its volume more than double, Warren (98.82%), Camden (98.47%), Salem (92.79%) and Sussex (80.50%). Essex County, as a point of reference, has seen its raw volume increase by 3.27 percent over that same five-year period.

Efforts to address the rapid growth of service need for mental health, substance use and self-harm through strategic investments and collaboration need to account for these perspectives of magnitude. Camden County appears in the top five under all three measurement approaches, signifying heightened need for local solutions.

In New Jersey, hospital emergency departments are the 24/7 safety net for individuals in need of care, regardless of their socio-demographic or social determinants of health characteristics. CHART's analysis uses Uniform Bill Data to help paint a picture of emergency department visits for mental health diagnoses, as either a primary or secondary diagnosis, from 2013 to 2017. More important, it deepens that picture with the landscape of growth and use rate among counties throughout the state. While the analysis is driven by the larger data set of behavioral health disorder diagnosis codes, particular attention is also given to individuals with a substance use diagnosis and those who inflicted self-harm.

SUB-FOCUS: Substance Use Disorders

In 2016, 63,632 drug overdose deaths occurred in the United States.[1] New Jersey experienced 2,056 drug overdose deaths during that same time.[2] An estimated 88,000 people (approximately 62,000 men and 26,000 women) die from alcohol-related causes annually. In New Jersey this equates to about 1,760 alcohol-related deaths annually.[3]

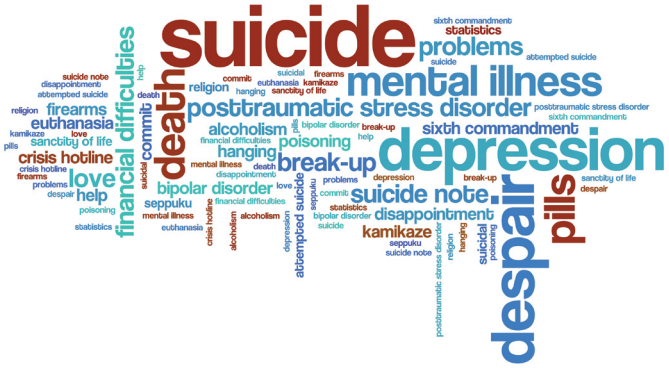
With the exception of Ocean County, regarded as the center of the opioid crisis in New Jersey, the top five counties for volume based on emergency department visits for substance use disorders are: Essex, Camden, Atlantic, Middlesex and Monmouth counties. These five counties account for almost half (44.8%) of total statewide ED substance use disorder visits. Use rates are similar to the broader analysis of emergency department visits quantified earlier in this report, with a mix of some rural counties. The top five are Atlantic, Salem, Warren, Cumberland and Essex. Atlantic and Essex counties appear in the top five for both highest number of visits and highest use rate, suggesting that these counties are experiencing heightened levels of activity and are in need of augmented intervention services and care coordination.

1. Centers for Disease Control and Prevention (2018) Drug Overdose Death Data
2. Centers for Disease Control and Prevention (2018) Drug Overdose Death Data
3. Centers for Disease Control and Prevention (2018) Alcohol and Public Health: Alcohol-Related Disease Impact (ARDI)

SUB-FOCUS: SELF-HARM

Nationally, nearly 45,000 individuals died by suicide in 2016. Rates went up more than 30 percent in half of the states since 1999; between 1999 and 2016 New Jersey's suicide rate has increased 19.2 percent.[4] Although in 2016 the state's suicide rate decreased for the first time since 2011, an alarming 687 deaths occurred during that year.[5]

Accounting for more than half (56%) of total statewide emergency department visits for suicide-related conditions, the top five counties for volume based on emergency department visits are Ocean, Essex, Morris, Middlesex and Hudson counties. Use rates are highest in a mix of urban and rural counties, with the top five counties being Ocean, Atlantic, Warren, Morris and Cumberland counties. Counties that are highest in both total statewide emergency department visits and use rates are Ocean and Morris counties, suggesting the need for a more acute analysis to determine the root cause of this exponential level of activity.



4. Centers for Disease Control and Prevention (2018) Suicide Rising Across the US
5. New Jersey Department of Health (2018) New Jersey's Suicide Rate Decreases by 13 Percent

PROPOSED SOLUTIONS

This study is an evaluation of patient claims data based on where services were provided with the goal of identifying areas where strategic service placement could lead to better coordinated care. Proposed solutions for NJHA in partnership with its members and other stakeholders include:

- **EVALUATE** patient-level data stratified by the patient's zip code of residence to understand how and where attention to preventative care could positively impact population health.
- **CONVENE** roundtables where leaders of local municipalities, community and social service agencies engage in data-driven discussions to move forward an agenda aimed at building sustainable systems of prevention and care.
- **EXPLORE** use and availability of real-time data to address the needs of sub-populations including individuals at risk for disparate care, children, those with development disabilities and dual diagnosis, the elderly and other vulnerable populations.
- **FORM** collaboratives using data-driven evaluations of service utilization and local tests of change designed to improve access to care and patient outcomes.
- **SUPPORT** legislative initiatives at the state and national level designed to integrate care and improve outcomes for individuals regardless of point of service delivery.