CHART
Center for Health Analytics, Research & Transformation at NJHA

BULLETIN

COVID-19's Mental Health Toll on Children Continues, Stressing Acute-Care Settings

Mental health has been at the forefront of healthcare professionals' and policy makers' agendas as the COVID-19 pandemic has added to the already disturbing mental and behavioral health trends among susceptible populations, particularly children and teens. New Jersey hospitals have not been immune to the impacts of such trends as they continue to care for patients with mental and behavioral health issues.

NJHA's Center for Health Analytics, Research and Transformation (CHART) previously identified increases in the prevalence of mental and behavioral health-related emergency department visits among patients 17 and under from 2017 to 2020. This paper extends this examination with 2021 data and by adding inpatient claims data to the analysis along with emergency department data. It focuses, however, on 12- to 17-year-olds due to the high prevalence of mental and behavioral health disorders among this age group[1-3]. This added information helps shape a clearer view of the overall prevalence of these disorders among teenagers seeking acute-care services.

CHART found that the prevalence of anxiety and depression – as well as self-harm and eating disorders – remained elevated in 2021 compared to pre-COVID-19 levels. This paper also highlights the disproportional total that the pandemic had on female teens' mental and behavioral health compared with males.

Increases in both the proportion and number of self-harm-related ED visits and hospitalizations were especially stark. The proportion of ED visits among 12- to 17-year-olds who had either a primary or secondary diagnosis for self-harm was approximately 68 percent higher in 2021 compared to 2019, while the corresponding increase for inpatient hospitalizations was 95 percent (Figures 1 & 2).

Background

Through its analysis of data from the National Syndromic Surveillance Program (NSSP), the Centers for Disease Control and Prevention (CDC) found that the proportion of ED visits for mental health among adolescents ages 12 to 17 years old throughout 49 states was approximately 31 percent higher between mid-March and mid-October 2020 compared with the same period in 2019. According to a later CDC report, the proportion of ED visits for suicide attempts among 12- to 17-year-olds was roughly 2.1 times higher in the winter of 2021 compared with the same period in 2019[2]. The number of visits for suspected suicide attempts among females of this age group increased by approximately 50.6 percent when comparing the same periods. In its most recent February 2021 report, the CDC found that the number of ED visits for eating disorders among adolescent females increased in 2020 and 2021 compared with 2019[3].

Trends in New Jersey

Throughout 2019, approximately 36 out of every 1,000 emergency department visits among 12- to 17-year-olds (teens) in New Jersey had a diagnosis for anxiety (Figure 3). In 2021 this proportion increased to 49 per 1,000 – an approximately 36 percent increase. For inpatient

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hospitalizations, these proportions for the same periods were 169 and 260 per 1,000 – an increase of roughly 54 percent (Figure 4).

Among the disorders included in this data analysis – depression, anxiety, self-harm and eating disorders – depression was the most common among teens in both the ED and inpatient hospital setting. The proportion of depression-related ED visits among teens increased by approximately 38 percent from 2019 to 2021, and the proportion of depression-related hospitalizations by 25 percent (Figures 5 & 6).

Eating disorders among teens – despite their relatively low prevalence – increased the most substantially during the pandemic. The proportion of eating disorder-related ED visits among teenagers nearly doubled between 2019 and 2021. The proportion of eating disorder-related hospitalizations was roughly 2.5 times higher in 2021 compared with 2019 (Figures 7 & 8). While the number of hospitalized teens with an eating disorder decreased from 284 in 2017 to 222 in 2019, it increased substantially to 599 in 2021 (Figure 9).

Self-Harm

As noted above, the increase in both the proportion and number of self-harm-related ED visits and hospitalizations was particularly concerning. The proportion of ED visits among 12- to 17-year-olds who had a diagnosis for self-harm was approximately 68 percent higher in 2021 compared to 2019, while the corresponding increase for inpatient hospitalizations was 95 percent (Figures 1 & 2). The total number of self-harm-related hospitalizations among teenagers declined from 383 in 2017 to 288 in 2019, jumping to 596 in 2021 (Figure 10).

As self-harm included a wide range of diagnoses, or categories, this paper also looked at the most common types. Intentional poisonings from nonopioid analgesics, antipyretics, and antirheumatics – including aspirin and other nonsteroidal anti-inflammatory drugs [NSAIDs], pain relievers, and fever reducers – were the most common diagnoses for self-harm. In 2019, poisonings from these substances were common in approximately 43 percent of all self-harm-related hospitalizations among teenagers and 28 percent of corresponding ED visits (Figures 11 & 12). These percentages increased to 53 and 38 percent in 2021. Poisoning from psychotropic drugs (not elsewhere classified) – including antidepressants, stimulants, and antipsychotics – were the second most common set of self-harm diagnoses.

Figure 1

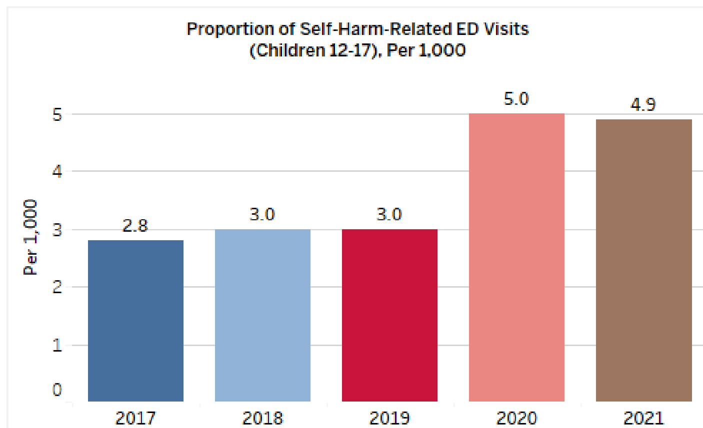


Figure 2

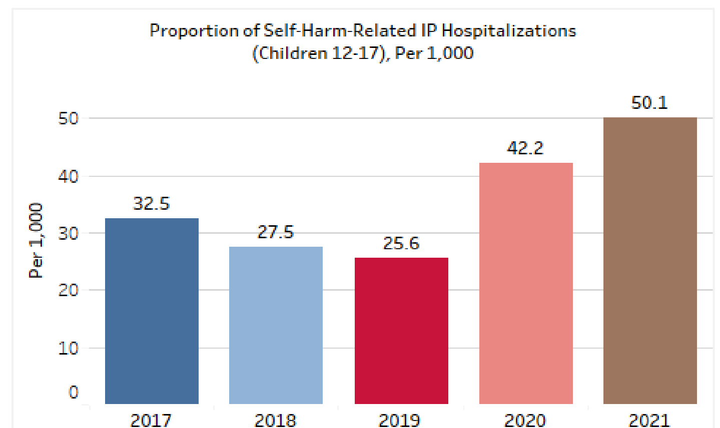


Figure 3

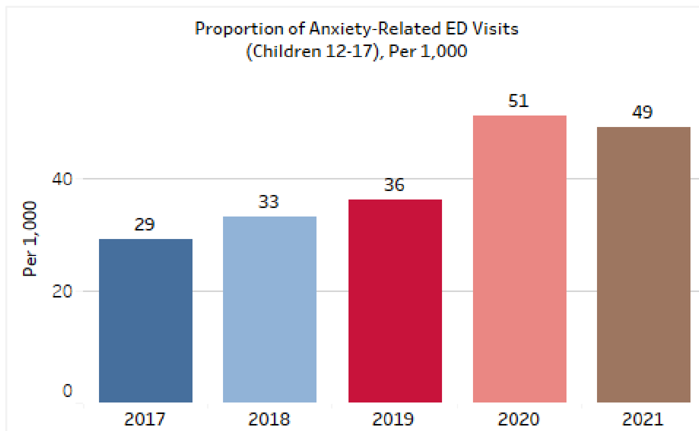


Figure 4

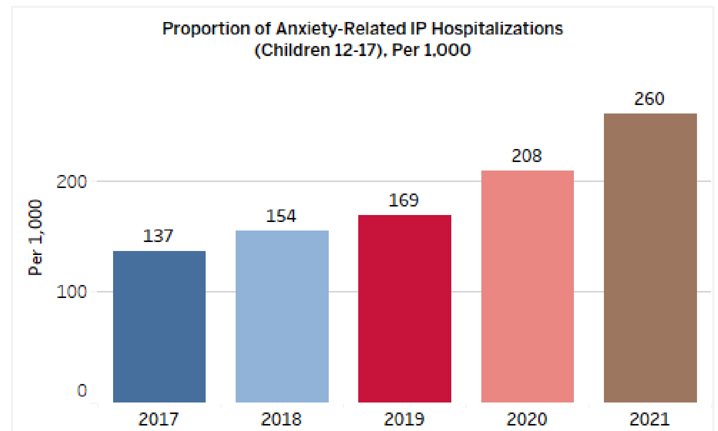


Figure 5

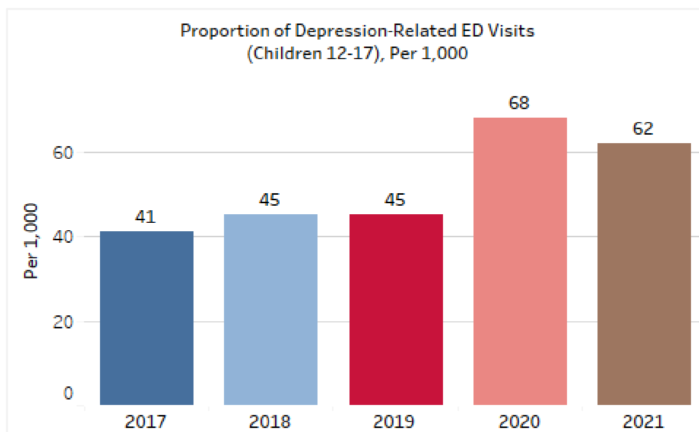


Figure 6

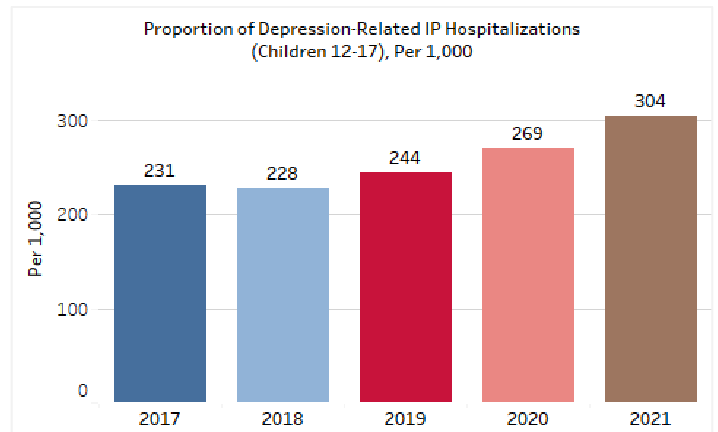


Figure 7

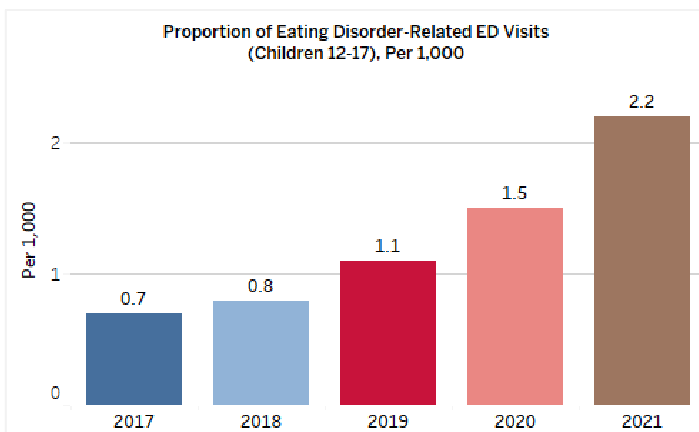
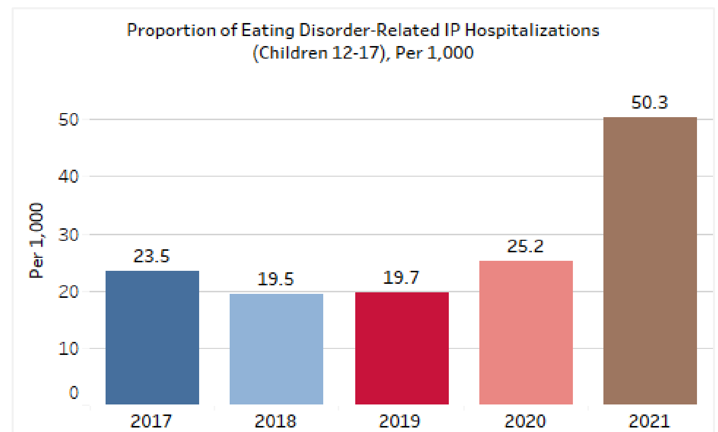


Figure 8



Source: New Jersey Hospital Discharge Data

Notes: *1) Diagnoses for self-harm include intentional self-harm poisonings from drugs, medicaments, biological substances, and nonmedical substances (ICD-10 codes T30-T65); self-inflicted injuries (X71-X83); and suicide attempts (T149)*
2) Diagnoses for anxiety included ICD-10 codes F40- F419
3) Diagnoses for depression include ICD-10 codes F320-F339
4) Diagnoses for eating disorders include ICD-10 codes F5000-F509

Figure 9

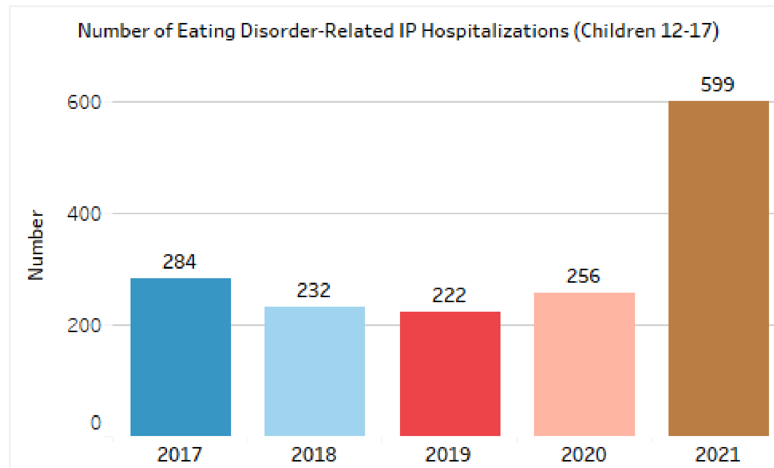
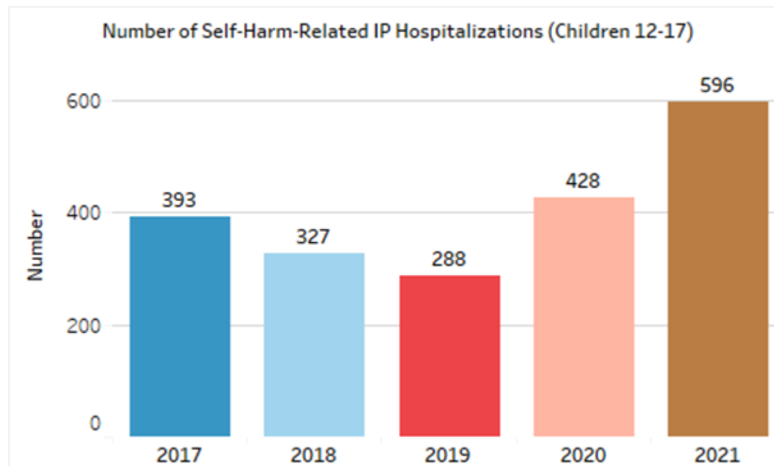


Figure 10



Source: New Jersey Hospital Discharge Data

Figure 11

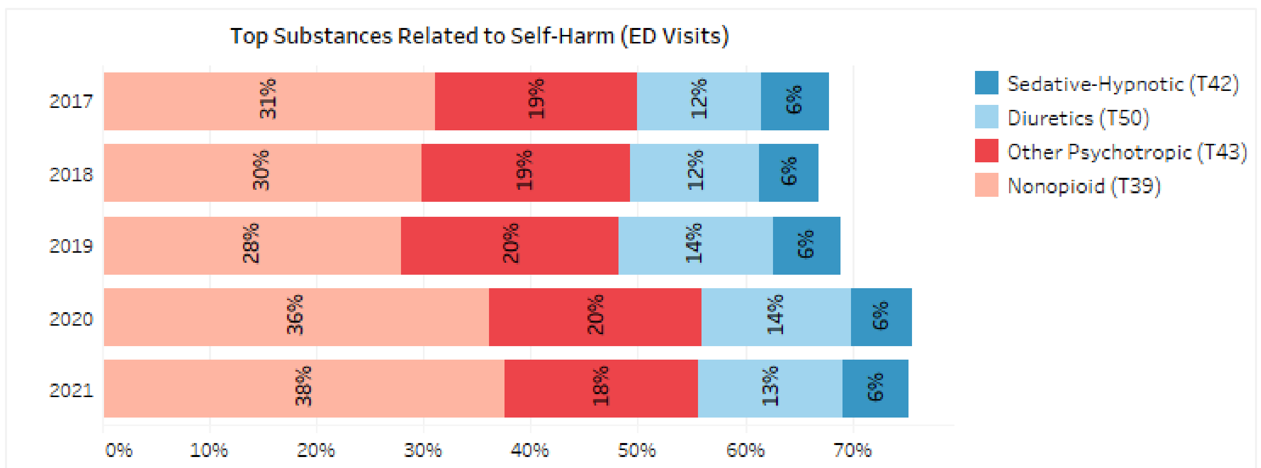
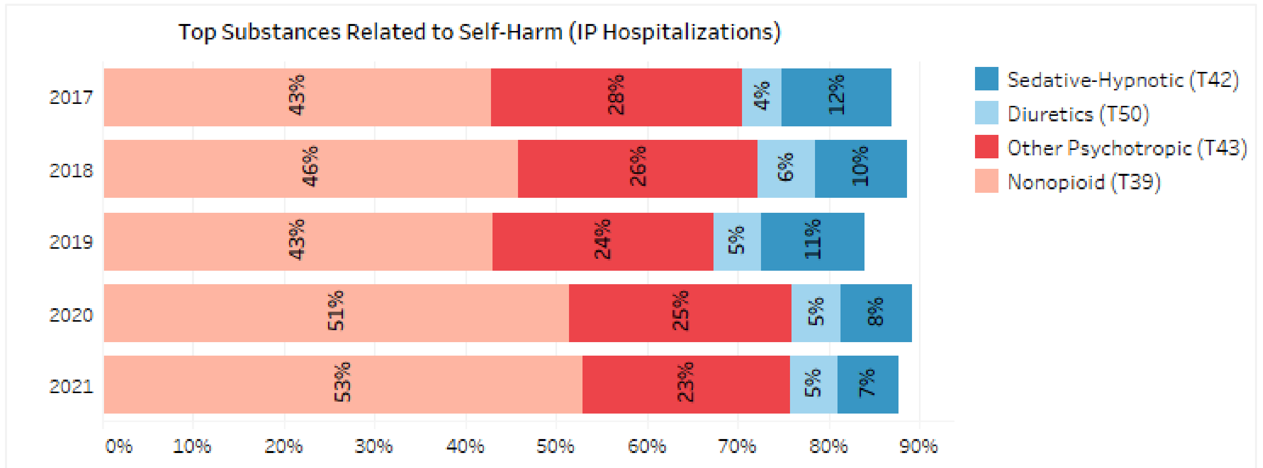


Figure 12



Source: New Jersey Hospital Discharge Data

Gender Differences

Eating disorders and self-harm were much more pronounced among females compared with males. In 2021, approximately nine in every 1,000 hospitalizations among teen males presented with a diagnosis for an eating disorder, compared with 78 in every 1,000 females (Figure 13). When looking at self-harm-related hospitalizations, these proportions were 17 and 72 per 1,000 (Figure 14).

Figure 13

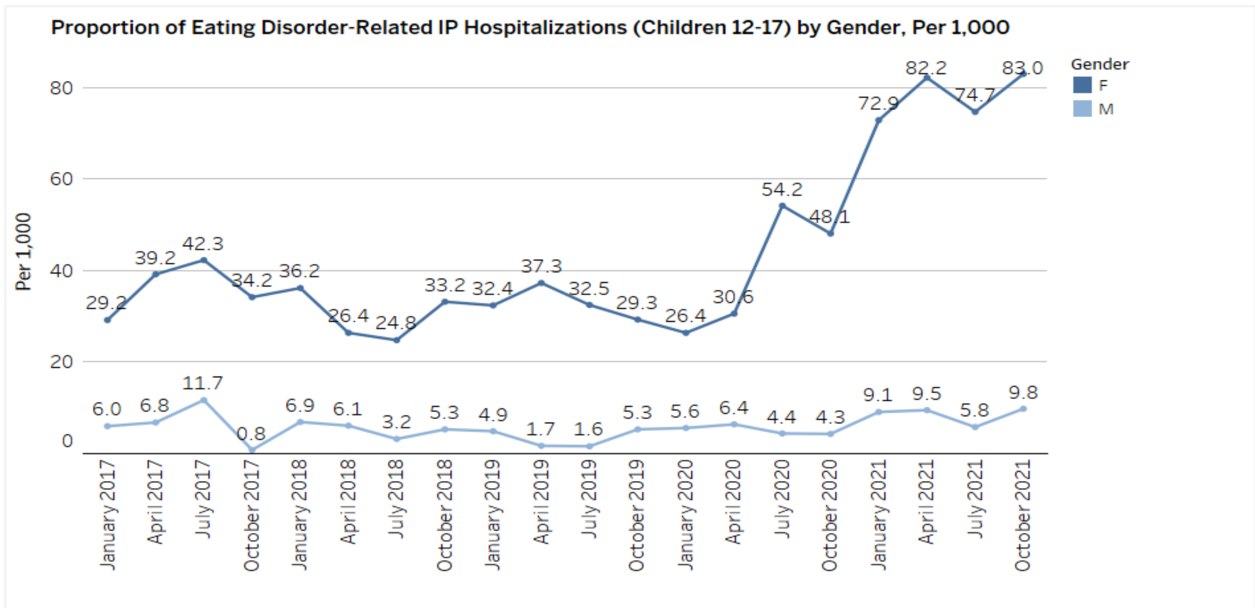
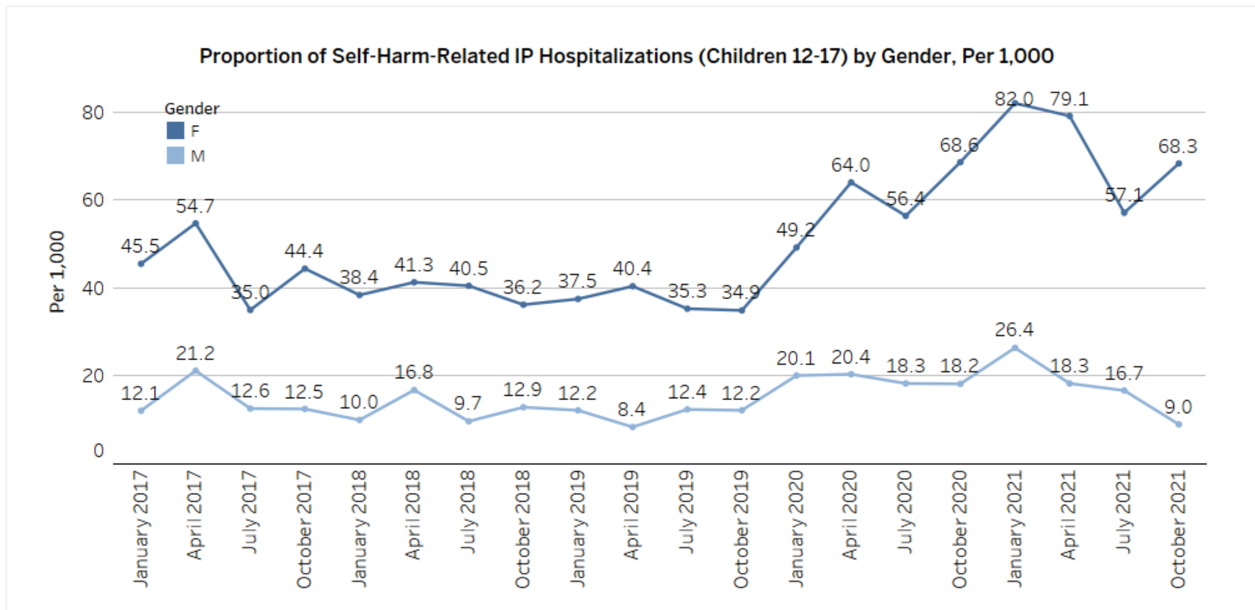


Figure 14



Source: New Jersey Hospital Discharge Data

Discussion

Promoting the need for early interventions around mental and behavioral health issues has been a priority for many advocates[4]. The increases in the above disorders among ED and hospitalized teenage patients demonstrate, however, that early forms of treatment and care may be substantially lacking. COVID-19 placed an immense strain on hospitals' resources (especially early in the pandemic), and now they are facing increased burdens in providing mental and behavioral health services.

Data from the Juvare Divert Database[5] highlight just how strained hospital-based psychiatric resources in New Jersey were in the past months. According to the database, there were approximately 603 psychiatric divert episodes in acute-care hospitals between September 2021 through mid-March 2022. These 603 psych-related diverts accounted for approximately 20 percent of all 3,022 ED divert episodes that occurred within those six months.

Approximately 32 percent of all 71 acute-care hospitals in New Jersey have a designated psychiatric unit (a unit in the general hospital that "offers short-term admission of individuals who meet the legal standards for commitment"[6]), and only a marginal number of those with units are equipped to provide specialty services for children and adolescents (Children Crisis Intervention Services).

Policies that help fund, support, and staff acute-care hospitals so that they are better able to care for those with mental or behavioral health disorders are ever more crucial. While those experiencing a psychiatric emergency will likely require additional – and ongoing – care outside of a hospital, acute-care hospitals may be the first point of contact that many have with the healthcare system. Increasing access to care in an outpatient or community-based setting must be a priority for New Jersey's mental health system of care. But absent a holistic and systemic approach to this challenge, equipping hospitals so that they can adequately provide specialized psychiatric care should be a top priority.

Footnotes:

https://www.cdc.gov/mmwr/volumes/69/wr/mm6945a3.htm

https://www.cdc.gov/mmwr/volumes/71/wr/mm7108e2.htm#:~:text=During%20March%E2%80%93October%202020%2C%20among,compared%20with%202019%20(2).

https://www.cdc.gov/mmwr/volumes/70/wr/mm7024e1.htm

https://www.northjersey.com/story/news/coronavirus/2022/03/03/nj-covid-children-anxiety-depression-epidemic/6895463001/

https://njdivert.juvare.com/

https://www.state.nj.us/humanservices/dmhas/resources/services/treatment/mental_health/STCFs.pdf