

# HOSP-C1 SISTRAT

## Exploratory analysis

**The total number of patients who were undergoing treatment for drug abuse rehabilitation was hospitalized between 2005 and 2022.**

Figures 1 and 2 show that the highest number of hospitalizations of patients who have been in drug abuse rehabilitation treatment occurs approximately in the same year as admission for rehabilitation treatment.

Figure 2 and Table 1 describe the percentage of patients who were undergoing drug abuse rehabilitation treatment and hospitalized. In each year of the total admissions to drug rehabilitation treatment, about 10% to 20% of the total patients were hospitalized in the same year. Likewise, it is observed that this percentage decreases as the years progress. Of the total admissions, 13.8% of patients had a hospitalization.

Table 1: Total hospitalized in admission year 2010-2022

Admission Year to Drug Rehab.	Total admissions.	Total hospitalizations in the same year.
2010	7193	1513 (21%)
2011	8039	1568 (19.5%)
2012	8662	1384 (16%)
2013	12192	1867 (15.3%)
2014	12433	1710 (13.8%)
2015	14499	2047 (14.1%)
2016	13427	1869 (13.9%)
2017	14617	1772 (12.1%)
2018	15648	1805 (11.5%)
2019	19620	1736 (8.8%)
2020	8346	1167 (14%)
2021	10983	1326 (12.1%)
2022	11112	1437 (12.9%)
Total	160003	22146 (13.8%)

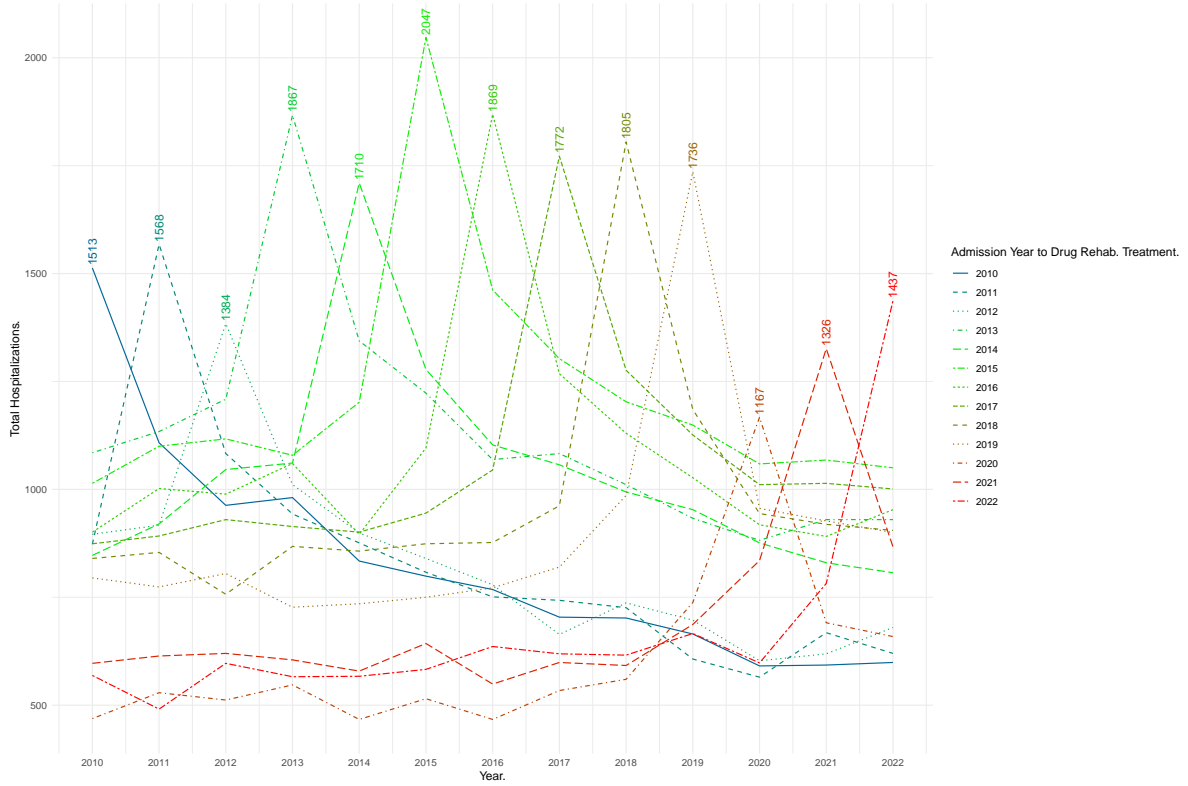


Figure 1: Total hospitalized by admission year 2010-2022.

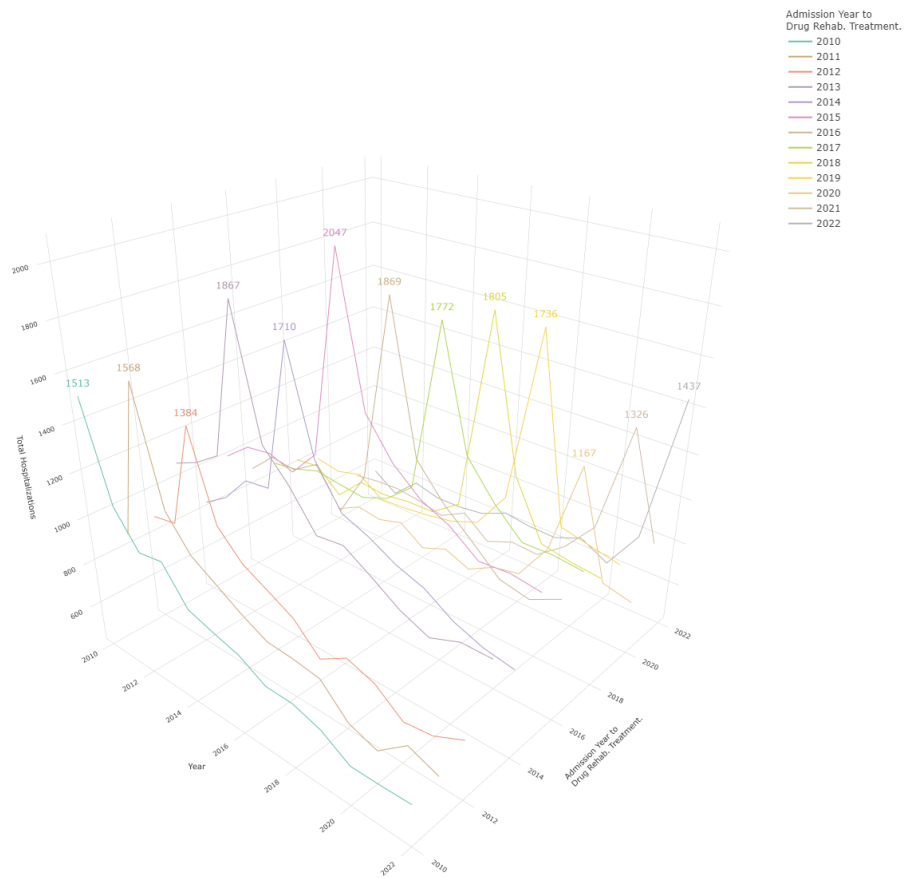


Figure 2: Total hospitalized by admission year 2010-2022.

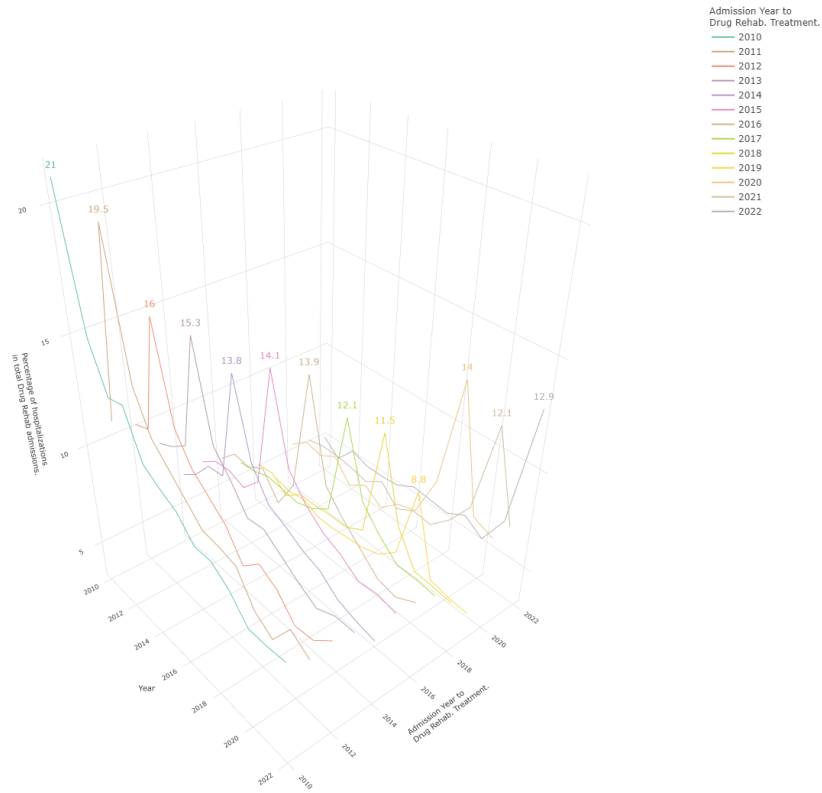


Figure 3: Percentege of hospitalized by admission year 2010-2022.

In Figure 4 and Table 2, regarding the total number of hospitalized patients, approximately 700 of every 100,000 hospitalizations correspond to patients who have had or are in rehabilitation treatment for drug abuse. This corresponds to 159,369 hospitalizations between 2010 and 2022 involving patients who were or were undergoing rehabilitation treatment. The highest rates occurred when the year of hospitalization coincided with the year of admission for rehabilitation treatment. Figure 4 shows the peaks in 2020 and 2021 (COVID-19).

Table 2: Total of patients who were in drug rehabilitation and have a hospitalization.

Year.	Total hospitalized.	Total of patients who were in drug rehabilitation (Rate per 100,000 hospitalized).
2010	1568161	11891 (758.28)
2011	1607067	12445 (774.39)
2012	1631538	12509 (766.7)
2013	1642859	12684 (772.07)
2014	1631495	12280 (752.68)
2015	1657954	12788 (771.31)
2016	1622902	12535 (772.38)
2017	1621397	12491 (770.39)
2018	1650911	12659 (766.79)
2019	1654335	12542 (758.13)
2020	1321358	11295 (854.8)
2021	1457905	11541 (791.62)
2022	1584121	11709 (739.15)
Total	20652003	159369 (771.69)

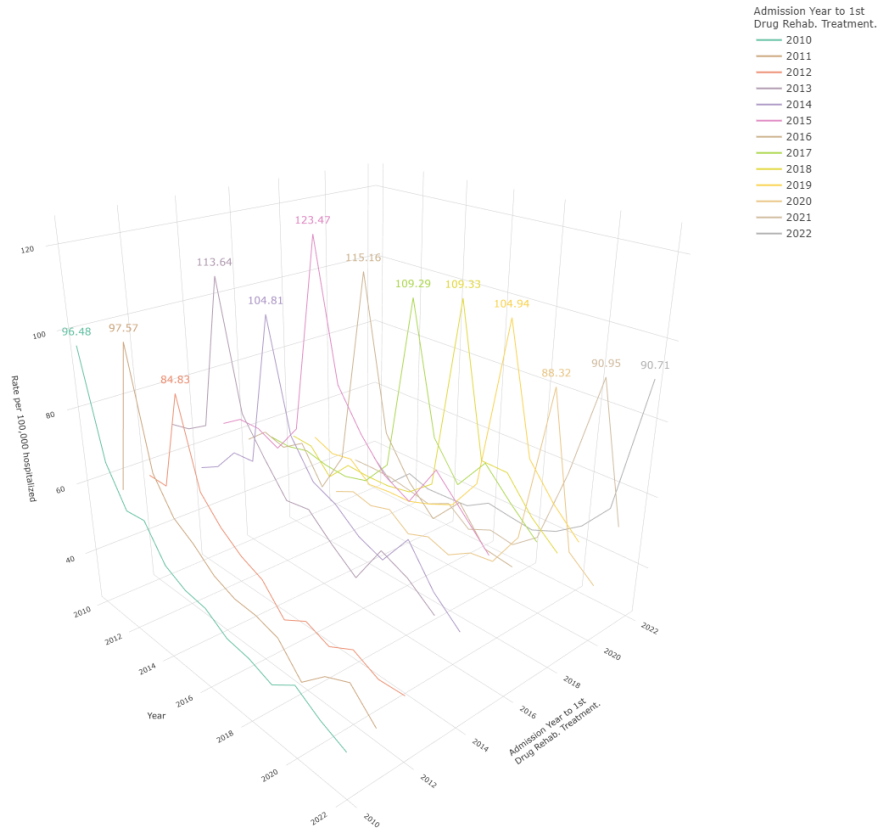


Figure 4: Rates per 100,000 hospitalized years: 2010-2022.

Table 3: Descriptive statistics for differences between drug rehabilitation admission days and hospital discharge days.

Admission year to drug rehab and Hospital discharge year.	Mean	SD	Q1	Median	Q3	IQR
2010	-12.078652	126.5061	-91.00	3	55.0	146.00
2011	-20.911990	126.3779	-90.00	0	42.0	132.00
2012	-7.801301	123.6831	-78.25	1	49.0	127.25
2013	-13.558115	127.4377	-90.00	1	47.5	137.50
2014	-4.867836	118.6330	-73.00	3	52.0	125.00
2015	-15.730826	123.6717	-88.00	3	46.0	134.00
2016	-11.866239	122.8979	-81.00	3	45.0	126.00
2017	-9.542325	118.8542	-81.00	4	49.0	130.00
2018	-11.429917	117.1719	-78.00	5	50.0	128.00
2019	-10.979839	118.3115	-82.00	4	50.0	132.00
2020	1.095973	130.0897	-65.50	8	66.0	131.50
2021	-4.409502	124.1541	-76.00	7	61.0	137.00
2022	-10.258177	121.7398	-85.00	6	52.0	137.00
Total	-10.649875	122.9126	-82.00	3	51.0	133.00

### **Day differences between hospital discharge and admission to drug abuse rehabilitation treatment within the same year.**

Difference: day of admission to drug rehabilitation - day of hospital discharge. This indicates that, if the value is positive, hospital discharge occurs before entry into drug rehabilitation treatment; if it is negative, it indicates the opposite. As shown in Figure 5, the difference in days was distributed asymmetrically to the left, and a large number of patients entered rehabilitation treatment on or near the same day as their hospital discharge. For all years, the median duration was 0–8 days. Of the total, that is, between 2010 and 2022, the median between the difference between days is 3.

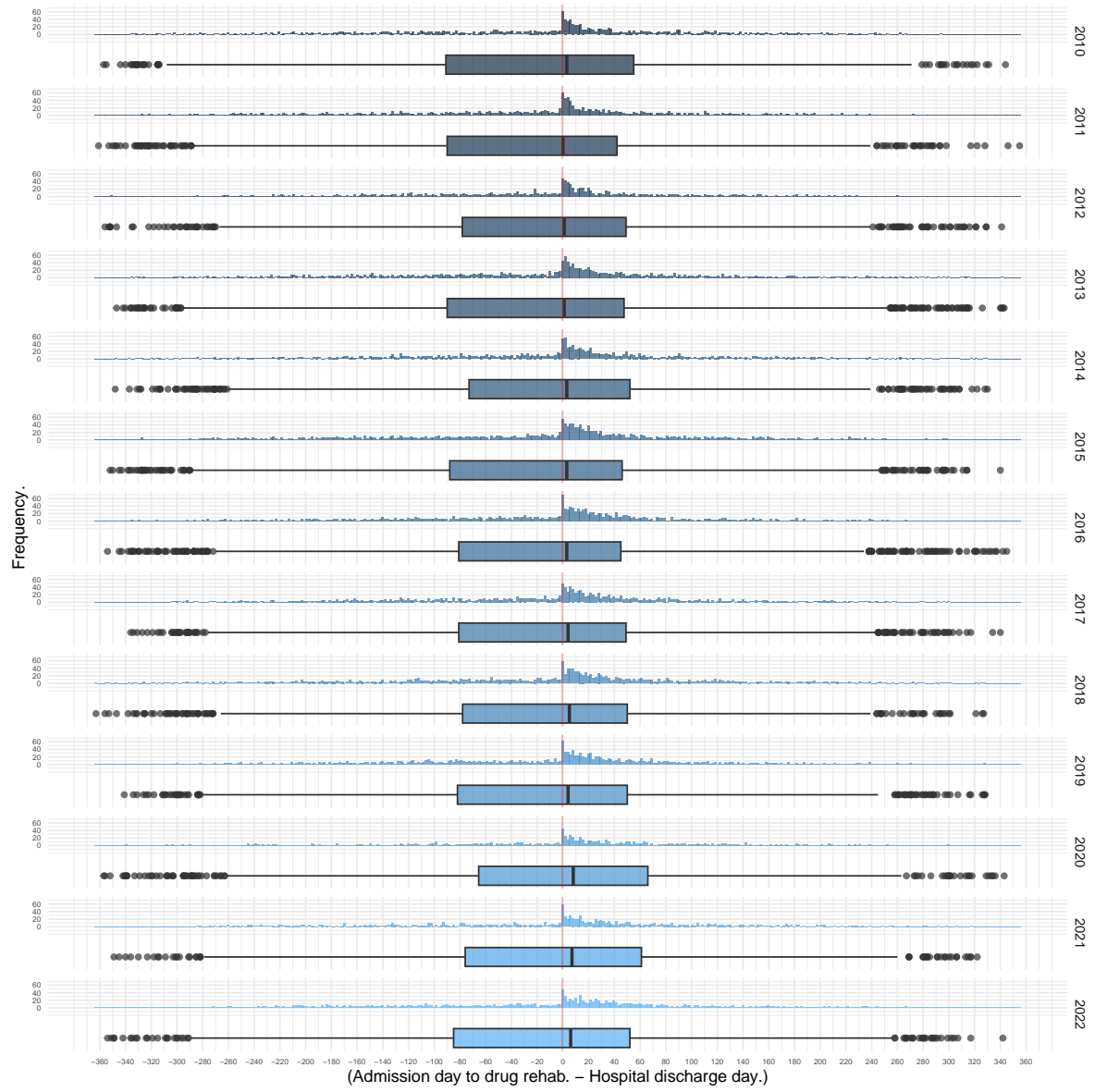


Figure 5: Histogram and boxplot for differences between drug rehabilitation admission day and hospital discharge day: 2010-2022.

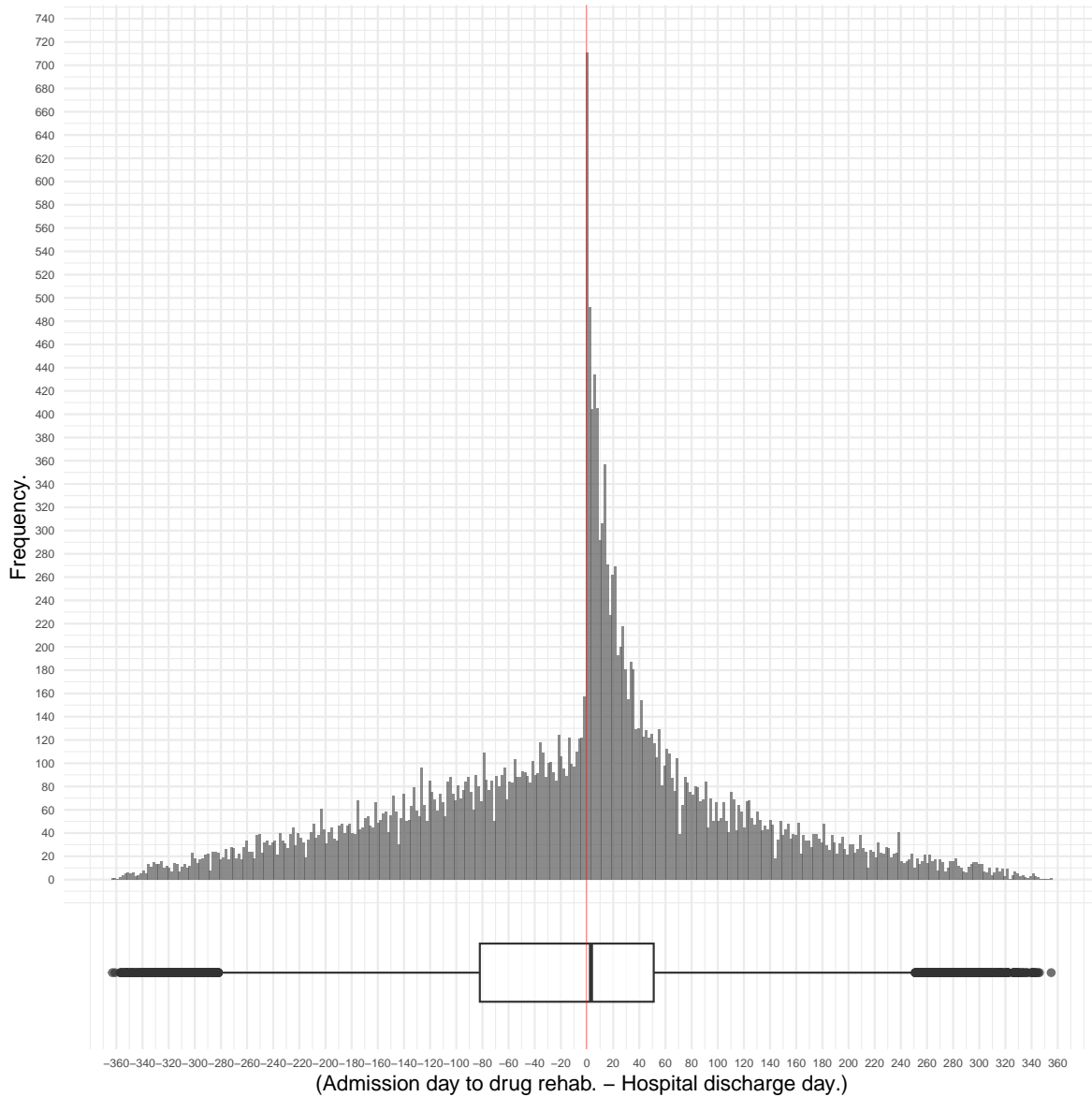


Figure 6: Histogram and boxplot for differences between drug rehabilitation admission day and hospital discharge day: Total.

### Hospitalization due to ICD-10 V00-Y99 External causes of morbidity.

As seen in Table 4 and Figure 6, hospitalizations for External Causes of Morbidity (ICD-10 V00-Y99) in patients who were in drug rehabilitation increased from 398 in 2010 to 600. 2022. The historical total of this cause of hospitalization is 6336, which corresponds to 3.98% of the



Table 4: Hospitalization due to ICD-10 V00-Y99 External causes of morbidity in drug rehab patients.

Year.	Total	X71-X83	X92-Y09	Y21-Y33	Y35-Y38	Y62-Y84	Y90-Y99
2010	398 (3.35)	16 (0.13)	281 (2.36)	58 (0.49)	2 (0.02)	40 (0.34)	1 (0.01)
2011	456 (3.66)	22 (0.18)	325 (2.61)	60 (0.48)	1 (0.01)	48 (0.39)	0 (0)
2012	421 (3.37)	7 (0.06)	294 (2.35)	64 (0.51)	0 (0)	55 (0.44)	1 (0.01)
2013	440 (3.47)	12 (0.09)	299 (2.36)	67 (0.53)	2 (0.02)	56 (0.44)	4 (0.03)
2014	425 (3.46)	16 (0.13)	276 (2.25)	62 (0.5)	0 (0)	68 (0.55)	3 (0.02)
2015	434 (3.39)	13 (0.1)	293 (2.29)	65 (0.51)	0 (0)	59 (0.46)	4 (0.03)
2016	475 (3.79)	17 (0.14)	343 (2.74)	40 (0.32)	1 (0.01)	71 (0.57)	3 (0.02)
2017	506 (4.05)	16 (0.13)	363 (2.91)	34 (0.27)	0 (0)	91 (0.73)	2 (0.02)
2018	533 (4.21)	24 (0.19)	346 (2.73)	44 (0.35)	0 (0)	114 (0.9)	5 (0.04)
2019	584 (4.66)	23 (0.18)	388 (3.09)	48 (0.38)	4 (0.03)	118 (0.94)	3 (0.02)
2020	561 (4.97)	22 (0.19)	408 (3.61)	29 (0.26)	0 (0)	93 (0.82)	9 (0.08)
2021	503 (4.36)	35 (0.3)	319 (2.76)	27 (0.23)	0 (0)	115 (1)	7 (0.06)
2022	600 (5.12)	27 (0.23)	376 (3.21)	47 (0.4)	1 (0.01)	143 (1.22)	6 (0.05)
Total	6336 (3.98)	250 (0.16)	4311 (2.71)	645 (0.4)	11 (0.01)	1071 (0.67)	48 (0.03)

Table 5: Hospitalization due to ICD-10 V00-Y99 External causes of morbidity in drug rehab patients.

Year.	Total	X71-X83	X92-Y09	Y21-Y33	Y35-Y38	Y62-Y84	Y90-Y99
2010	15964 (1.02)	219 (0.01)	6574 (0.42)	2246 (0.14)	35 (0)	6857 (0.44)	33 (0)
2011	17877 (1.11)	282 (0.02)	6777 (0.42)	2446 (0.15)	30 (0)	8276 (0.51)	66 (0)
2012	18074 (1.11)	270 (0.02)	6409 (0.39)	2062 (0.13)	20 (0)	9212 (0.56)	101 (0.01)
2013	17718 (1.08)	284 (0.02)	6129 (0.37)	2666 (0.16)	17 (0)	8489 (0.52)	133 (0.01)
2014	17824 (1.09)	280 (0.02)	5531 (0.34)	1829 (0.11)	23 (0)	10057 (0.62)	104 (0.01)
2015	19163 (1.16)	254 (0.02)	5519 (0.33)	2056 (0.12)	27 (0)	11217 (0.68)	90 (0.01)
2016	18768 (1.16)	250 (0.02)	5310 (0.33)	1284 (0.08)	22 (0)	11712 (0.72)	190 (0.01)
2017	21599 (1.33)	335 (0.02)	5565 (0.34)	1727 (0.11)	12 (0)	13841 (0.85)	119 (0.01)
2018	22822 (1.38)	356 (0.02)	5977 (0.36)	2092 (0.13)	13 (0)	14317 (0.87)	67 (0)
2019	25035 (1.51)	427 (0.03)	6846 (0.41)	2199 (0.13)	182 (0.01)	15305 (0.93)	76 (0)
2020	20756 (1.57)	381 (0.03)	7096 (0.54)	1843 (0.14)	45 (0)	10715 (0.81)	676 (0.05)
2021	20306 (1.39)	489 (0.03)	5345 (0.37)	1440 (0.1)	14 (0)	12671 (0.87)	347 (0.02)
2022	24595 (1.55)	727 (0.05)	6318 (0.4)	1528 (0.1)	17 (0)	14937 (0.94)	1068 (0.07)
Total	260501 (1.26)	4554 (0.02)	79396 (0.38)	25418 (0.12)	457 (0)	147606 (0.71)	3070 (0.01)

total hospitalizations of patients who were in rehabilitation, with the majority being X92-Y09. Assault.

In contrast, in Table 5 and Figure 7, hospitalizations for External Causes of Morbidity (ICD-10 V00-Y99) are observed, but in the general population with an increase not as growing as that of the population undergoing drug rehabilitation treatment. The historical total of this cause of hospitalization is 260,501, which corresponds to 1.26% of the total hospitalizations in the general population

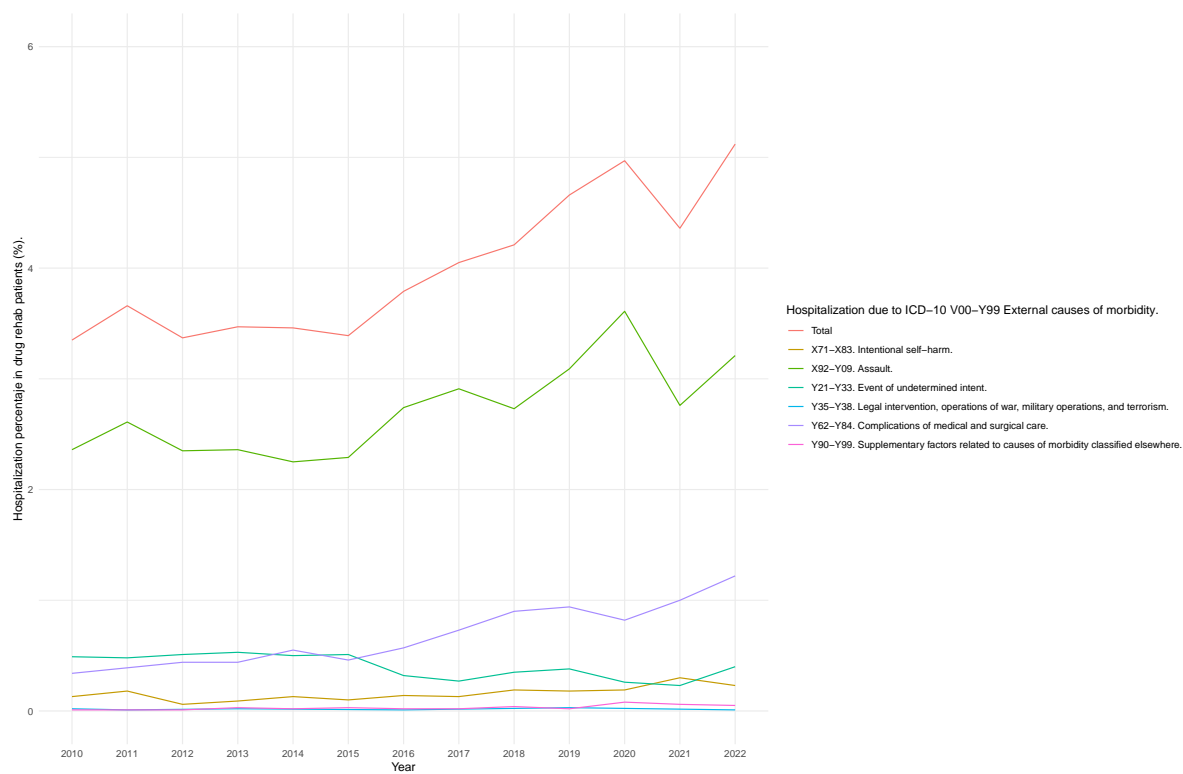


Figure 7: Hospitalization due to ICD-10 V00-Y99 External causes of morbidity in drug rehab patients (%).

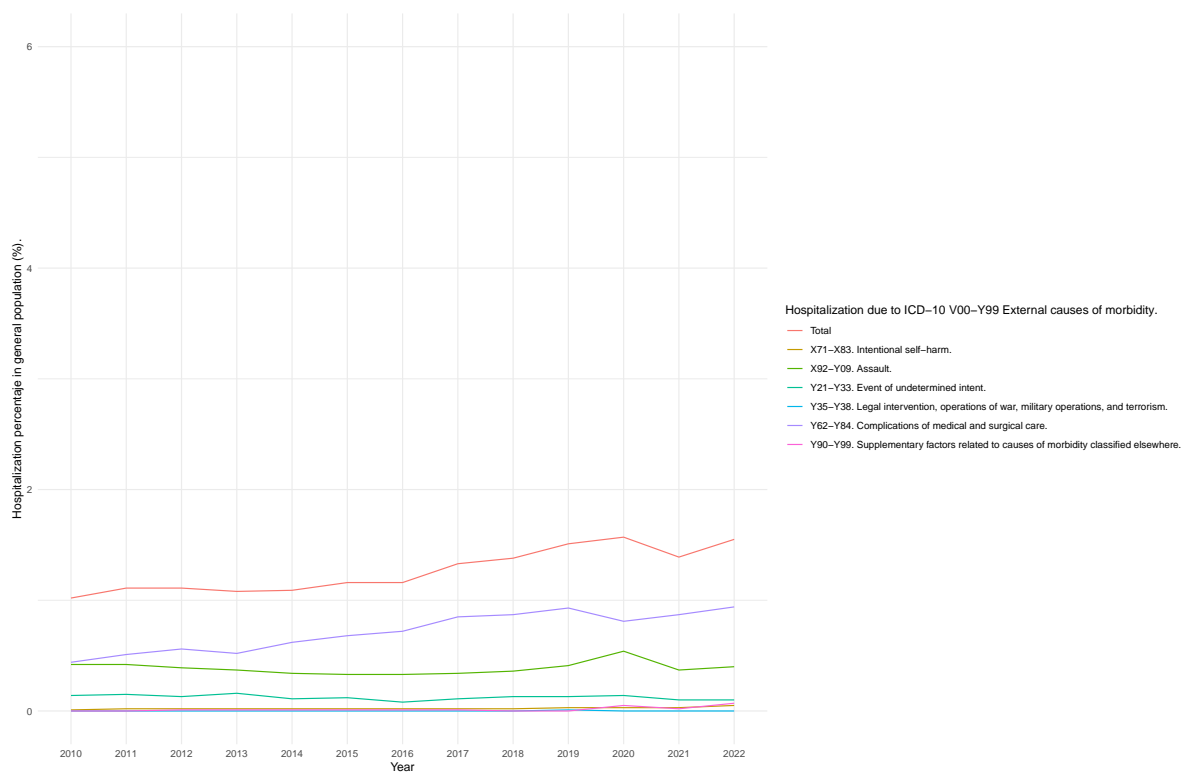


Figure 8: Hospitalization due to ICD-10 V00-Y99 External causes of morbidity in drug rehab patients (%).