

2020 Iowa Gambling Treatment Outcome System

Administrative Data and Treatment Outcome Report

Prepared for Iowa Department of Public Health Iowa Gambling Treatment Program

Prepared by

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List of Acronyms

IDPH	Iowa Department of Public Health
IGTP	Iowa Gambling Treatment Program
IGTO	Iowa Gambling Treatment Outcomes
I-SMART	Iowa Service Management and Reporting Tool
IPN	Integrated Provider Network
SAMHSA	Substance Abuse and Mental Health Services Administration
IRB	Institutional Review Board
UNI	University of Northern Iowa
CSBR	Center for Social and Behavioral Research

SECTION A. Administrative Data

The 2021 Iowa Gambling Treatment Outcomes (IGTO) Monitoring System report presents findings based on data from the Problem Gambling Domain of the Iowa Service Management and Reporting Tool (I-SMART), which is the main data source for this report. In addition, a 6-month follow-up assessment after discharge has been collected by the CSBR research team since September of 2018. This report uses the I-SMART data from January 1, 2018, to December 31, 2020.

The purpose of the Iowa Gambling Treatment Outcomes Monitoring System is to assess the extent to which problem gambling treatment services provided via the Office of Problem Gambling Treatment and Prevention are associated with positive outcomes for patients who received problem gambling treatment from the Integrated Provider Network (IPN).

The Iowa Department of Public Health (IDPH) Substance Use and Problem Gambling Services Integrated Provider Network (IPN) is a statewide, community-based, resiliency- and recoveryoriented system of care for substance use and problem gambling services (prevention, early intervention, treatment, and recovery support).

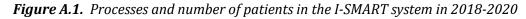
The IPN brings together three previously separate service systems: Substance Abuse Prevention, Substance Use Disorder Treatment, and Problem Gambling Prevention and Treatment, as directed in legislation beginning in 2009. IPN problem gambling services are funded by state General Fund appropriations.

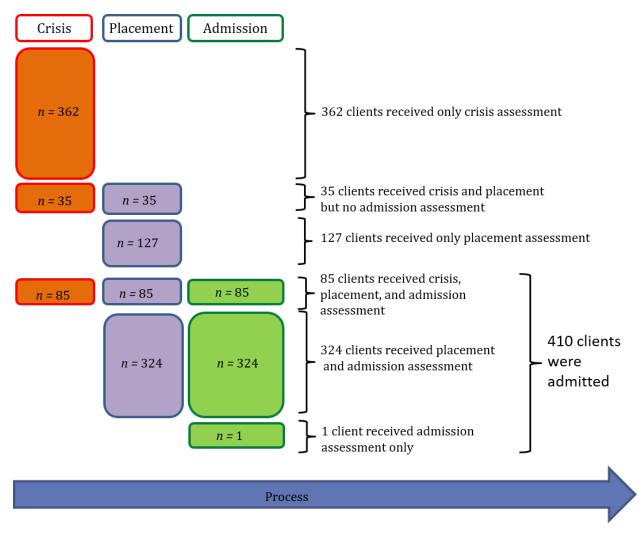
The IGTO project focuses on problem gambling treatment and follow up data, and has been reviewed by the Institutional Review Board (IRB) at UNI to ensure compliance with human participant research protections.

CRISIS, PLACEMENT, AND ADMISSION PROCESS AND NUMBER OF PATIENTS

From January 2018 to December 2020, there were 934 assessments completed. More specifically, 362 patients had only a "crisis" assessment completed, 127 patients had only a "placement" assessment completed, while 35 patients completed both a "crisis" and "placement" assessment. One patient completed an "admission" assessment only. There were 324 patients with both "placement" and "admission" assessments completed, while 85 patients completed all three types of assessments (see Figure A.1).

Among the 410 admissions, there were 35 patients who had previous admission between January of 2018 and December of 2020; consequently, there were 375 unique patients served from 2018 to 2020. However, the number of patients served in the treatment programs is higher since some patients had more than one admission in this period. Also, individuals such as significant others or family members are not counted in this report.





The number of assessments has decreased each year since 2018. For instance, there were 219 admission assessments in 2018, 114 admission assessments in 2019, and 77 admission assessments in 2020 (see Table A.1).

Table A.1. Number of patients in the I-SMART system by year

	-			
	2018	2019	2020	Total
Crisis-Placement-Admission	76	5	4	85
Placement-Admission	142	109	73	324
Admission only	1	0	0	1
Crisis-Placement (no admission)	22	9	4	35
Crisis only	342	9	11	362
Placement only	56	50	21	127

Admissions by Treatment Program

The number of admitted patients varied by program, ranging from 0 to 74 in a year. IPN agencies with at least one admitted patient are shown in Table A.2.

	2018	2019	2020	Total
SBN = 3	0	9	6	15
SBN = 4	74	10	9	93
SBN = 5	0	3	4	7
SBN = 15	0	14	5	19
SBN = 16	0	0	2	2
SBN = 20	21	12	7	40
SBN = 21	15	12	6	33
SBN = 23	44	4	3	51
SBN = 24	0	1	0	1
SBN = 25	0	3	1	4
SBN = 26	10	13	2	25
SBN = 30	0	1	1	2
SBN = 31	16	9	6	31
SBN = 34	4	2	0	6
SBN = 36	15	9	9	33
SBN = 40	17	12	10	39
SBN = 64	0	0	1	1
SBN = 130	0	0	5	5
SBN = 277	2	0	0	2
All treatment programs	218	114	77	409 ²

Table A.2. Admissions in treatment programs¹ by year

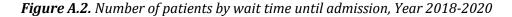
WAIT TIME

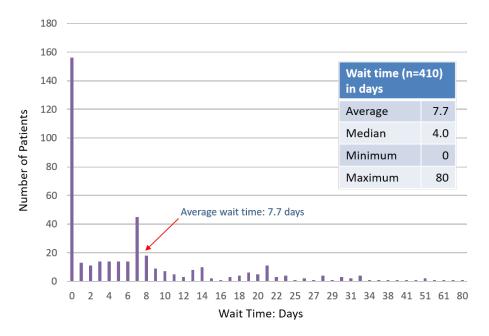
Wait time is computed using the number of days from date of first contact to admission. Of the 410 patients who were admitted in 2018-2020, the average wait time was 7.7 days and 83% of admitted patients waited 14 or fewer days.

¹ The State Business Numbers 34 & 277 are agencies which provided gambling treatment services, but are not part of the IPN.

² One patient with no agency information was excluded in this table.

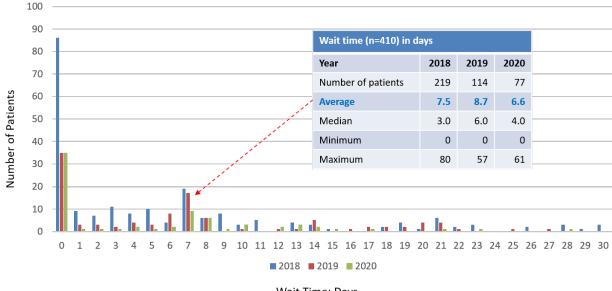
2020 Iowa Gambling Treatment Program





The wait time increased in 2019 from 7.5 to 8.7 days. The average wait time was 6.6 days in 2020. The distribution of patients³ and average wait times are shown in the Figure A.3.

Figure A.3. Number of patients and wait time until admission by year



Wait Time: Days

³ The wait time axis shows up to 30 days. Outliers that fell between 30 and 80 days were excluded.

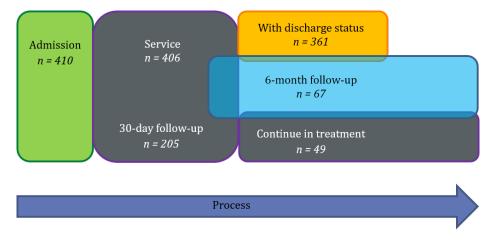
Admission, 30-day Assessment, Discharge and 6-Month Follow-Up

There were 410 patients who were admitted and received services from January 2018 to December 2020. Of these, 205 completed a 30-day follow-up assessment. Starting in 2019, the 6-month follow-up questionnaire was assessed 6 months after the admission date regardless of discharge status. The number of patients who participated in the follow-up assessment by year is shown in Table A.3. The overall numbers from admission to 6-month follow-up are shown in the Figure A.4.

able more representation of patients in the remaining system by year					
		2018	2019	2020	Total
Admission		219	114	77	410
Services (one or more		218	114	74	406
30-day assessment		115	52	38	205
	Left or incomplete	137	68	26	231
Discharge Status	Completed treatment	75	39	16	130
	Still in the system	7	7	35	49
6-month follow-up		38.4	31	4	73

Table A.3. Number of patients in the I-SMART system by year

Figure A.4. Process and number of patients in 2018-2020



⁴ There were 93 follow-up completions in 2018 with 55 of them being in the old protocol (excluded from this report).

SIX-MONTH FOLLOW-UP

During the placement screening process, patients are asked if they would agree to complete a follow-up questionnaire six months from admission. This follow-up questionnaire mirrors the placement screening and admission dataset, plus additional questions on perception of the treatment experience (See Table A.4).

	Total number of Admissions	6-month follow-up		Total number of Admissions	6-month follow-up
SBN = 3	15	4	SBN = 26	25	0
SBN = 4	93	14	SBN = 30	2	0
SBN = 5	7	1	SBN = 31	31	7
SBN = 15	19	3	SBN = 34	6	0
SBN = 16	2	0	SBN = 36	33	7
SBN = 20	40	16	SBN = 40	39	1
SBN = 21	33	6	SBN = 64	1	0
SBN = 23	51	10	SBN = 130	5	1
SBN = 24	1	1	SBN = 277	2	1
SBN = 25	4	1			
	All treatment	409 . ⁵	73		

Table A.4. Admissions and number of follow-up assessments by treatment program

DEMOGRAPHIC CHARACTERISTICS OF PATIENTS AT ADMISSION

More males (56%) than females (44%) were admitted. The majority of the patients were white (90%). Patients were less likely to have a college education (59%) and more likely to be unemployed (54%) at admission compared to the Iowa adult population (see Table A.5).

⁵ One patient with no agency information was excluded in this table.

	Admission (n=118)	Iowa adults.6
Gender		
Male	56%	50%
Female	44%	50%
Ethnicity		
No Hispanic/Latino	96%	94%
Race		
Caucasian	90%	91%
African American	5%	4%
Other	5%	5%
Relationship		
Single	39%	28%
Married or cohabitating	35%	53%
Divorced, separated, or widowed	25%	19%
Education ⁷		
High school or GED or less	59%	34%
Some college or more	41%	66%
Employment status ⁸		
Full/part time	46%	67%
Unemployed or unable to work	54%	33%
Age group		
18-34 years	29%	30%
35-54 years	47%	31%
55 or more	24%	39%

Table A.5. Demographics of patients in I-SMART & 6-month follow-up compared to IA population.

⁶ Iowa adult population estimates are based on 2019 ACS Population estimates (July, 2019).

⁷ Iowa adult estimates based on population aged 25 to 64 years.

⁸ Iowa adult estimates based on population aged 16 or older (see <u>https://www.census.gov/quickfacts/fact/table/IA</u>).

SECTION B. TREATMENT OUTCOMES

Treatment outcomes in this section focused on the following:

- Wait time, length of services, and discharge reason
- Treatment services
- Paired analyses between admission and discharge

OUTCOME 1: WAIT TIME

WAIT TIMES AND LENGTH OF SERVICE

Of 410 patients admitted between 2018 and 2020, 361 patients had a discharge reason specified. The average wait time for treatment was 7.7 days among admitted patients. The following findings reflect the group of patients that has <u>both</u> admission and discharge records (n=361). Those patients who did not have a discharge noted (n=49) continue to participate in treatment and are not part of this outcome analysis.

Length of service (LOS).⁹ was compared between those who waited less than a week and those waiting more than a week to be admitted. Although patients admitted within a week received more services, this difference was not statistically significant (Table B.1 shows the sample average in treatment services).

Wait times		Service count	Service time (minutes)
a - 1	Average	10.3	584
0-7 days (n=250)	Minimum	1	60
(11-250)	Maximum	120	5700
8 or more	Average	9.1	519
days	Minimum	0	0
(n=111)	Maximum	117	3750
	Average	9.9	564
Total	Minimum	0	0
(n=361)	Maximum	120	5700

Table B.1. Wait times by length of service (LOS) in 2018-2020

⁹ LOS can be assessed in two ways: 1) Aggregated count of number of services by patients, and 2) Aggregated length of time of services received by patients.

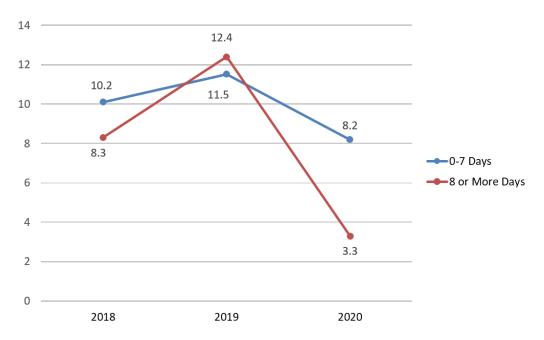
The number of services by wait time varied by year. In 2020, the number of services received among patients with 7 or fewer wait days was 8.2 compared to 3.3 among those whose wait time was 8 or more days (see Table B.2).

Wait times		2018	2019	2020
0.7 dave	Patients n	149	71	30
0-7 days	Average number of services	10.2	11.5	8.2
8 or more	Patients n	63	36	12
days	Average number of services	8.3	12.4	3.3

Table B.2. Wait times and average number of services by year

The variation in the average number of services can be also see in the figure B.1. However, the number of admissions declined from 2018 to 2020, and the results in 2020 rely on a small sample size (see Figure B.1).

Figure B.1. Average number of services received by wait time and year



WAIT TIMES AND DISCHARGE REASON¹⁰

The average wait time for patients who completed the treatment was 8.1 days and was slightly longer than the wait time among those who did not complete treatment (7.3 days). However, this difference was not statistically significant (see Table B.3).

Wait times (days)	Complete treatment plan (n=130)	Incomplete treatment plan (n=231)
Average	8.1	7.3
Minimum	0	0
Maximum	80	76

Table B.3. Wait times by discharge reason

OUTCOME 2: TREATMENT SERVICES

In this section, associations between treatment services and main outcomes of problem gambling treatment are examined. The findings are based on the group of patients that has both admission and discharge records (n=361).

Discharge reason is given at the time of completion of a treatment plan or when it is necessary to close the patient's file for different reasons such as "client left" or "referred outside." The "completed treatment" includes: 1) Completed the treatment plan, or 2) Substantially completed treatment plan. The "incomplete treatment" includes: 1) Client left, 2) Death, 3) Incarcerated, 4) Lack of progress, or 5) Referred outside.

The proportion of patients who received the discharge status "completion of treatment" plan was relatively stable over time, and there was not a significant difference in 2018-2020. About one third of the admitted patients (36%) were given the completed treatment status in 2018-2020 (see table B.4).

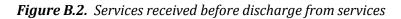
		2018	2019	2020	Total	
Client left or	Patients n	137	68	26	231	
incomplete	% within the year	64.6	63.6	61.9	64.0	
Completed	Completed Patients n	75	39	16	130	
treatment	% within the year	35.4	36.4	38.1	36.0	

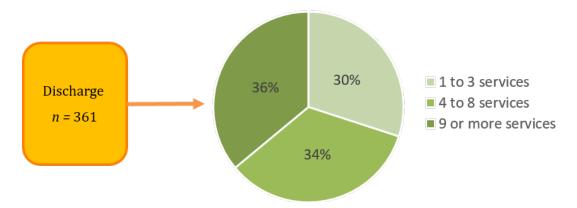
Table B.4. Discharge status by year

¹⁰ Discharge reason is defined as follows in the report: 'Completed treatment' or 'Substantially completed' were aggregated into "Complete." 'Client left', 'Death', 'Incarcerated', 'Lack of progress', and 'Referred outside' were aggregated into "Incomplete."

SERVICES RECEIVED (REGARDLESS OF DISCHARGE REASON)

Among those patients who were discharged, more than 2 in 3 (70%) received four or more services while in treatment. About 1 in 3 patients received nine or more services before discharge from services (see Figure B.2).





However, in 2020, the proportion of patients receiving 1 to 3 services (42%) significantly increased from the previous years (30% in 2018 and 25% in 2019) (see Table B.5).

		2018	2019	2020	Total
	Patients n	64	27	17	108
1-3 services	% within the year	30.2	25.2	41.5	30.0
4-8 services	Patients n	68	37	19	124
	% within the year	32.1	34.6	46.3	34.4
9 or more services	Patients n	80	43	5	128
	% within the year	37.7	40.2	12.2	35.6

*p < 0.05

30-DAY FOLLOW-UP

About half of discharged patients participated in the 30-day follow-up (n=178) (see Figure B.3). The proportion of patients with a 30-day assessment did not differ significantly in 2018-2020 (see Table B.6).

Figure B.3. 30-day follow-up completed before receiving discharge reason

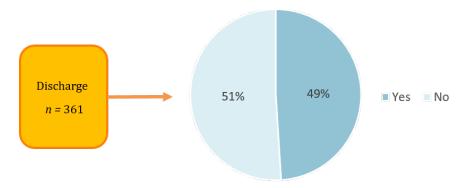
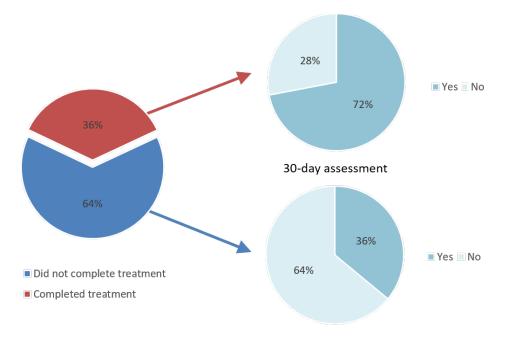


Table B.6. 30-day follow-up completed before receiving discharge reason by year

30-day follow-up		2018	2019	2020	Total
Patients n		111	47	20	178
Yes	% within the year	52.4	43.9	47.6	49.3
Patients n		101	60	22	183
No	% within the year	47.6	56.1	52.4	50.7

The proportion of 30-day follow-ups was significantly different between patients who completed (n=130) and who did not complete (n=231) treatment as shown in Figure B.4. Among those who completed treatment, 72% of patients had 30-day follow-ups. These proportions did not significantly vary by year.

Figure B.4. 30-day follow-ups received among patients discharged from services



The length of time between admission and 30-day follow-up varies greatly. The time of assessment ranged from 7 days to 90 days from admission date for about 90% of patients. However, there were some patients (3%) with more than 6 months between the admission and 30-day assessment. The most common interval between admission and a 30-day follow-up assessment was 30-35 days. Among those who were assessed with 30-day follow-up, about half of patients (56%) were between 30 to 45 days from admission.

Four or more treatment services within 30 days and length of service

Patients who received four or more services within the first 30 days of admission were more likely to have a higher number and duration (total hours of services) of treatment sessions compared to those who received fewer than four treatment services within 30 days of admission (see Table B.7).

	Within 30 days					
Treatment services	Fewer than 4 services (n = 203)	4 or more services (n = 207)				
Average number of sessions. ¹¹	6.8	15.9				
Average LOS time. ¹²	4.9 hours	14.9 hours				
* <i>p</i> < .001						

Table B.7. Treatment services by number of services received within 30 days

The number of services within 30 days followed similar patterns in 2018 and 2019. However, in 2020, there were more patients receiving fewer than 4 services within 30 days than those receiving 4 or more services. Additionally, the difference in the number of sessions between those who received fewer than 4 services and patients who received 4 or more services in the first 30 days narrowed (see Table B.8)

30 day follow up		2018	2019	2020	Total
Fewer than 4 services	Patients n	103	57	43	203
	Average number of sessions	6.7	7.1	6.4	6.8
Four or more servicesPatients nAverage num sessions	Patients n	116	57	34	207
	Average number of sessions	15.4	22.0	7.3	15.9

Table B.8. Thirty-day follow-up received before receiving discharge reason by year

¹¹ The average number of "sessions" does not include Coordination of Care and Recovery Support Services (RSS).

¹² The average number of LOS does not include Coordination of Care and Recovery Support Services (RSS).

OUTCOME 3: ADMISSION AND DISCHARGE: PAIRED SAMPLE¹³ (N=130)

Average number of days gambled in the past 30 days

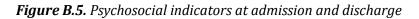
There were 130 patients who completed treatment. Among these patients, the number of days gambled in the past 30 days at the time of discharge was fewer than at the time of admission (see Table B.4 and Figure B.9).

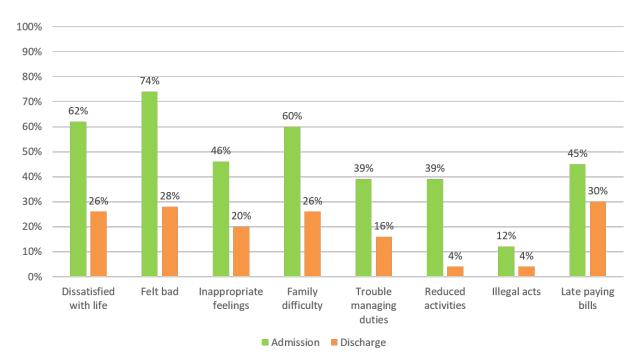
Table B.9. Average number of days gambled among discharged patients

Time of assessment	Average number of days gambled in the last 30 days (n = 130)
Admission	7.0
Discharge	1.0
* <i>p</i> < .001	

PSYCHOSOCIAL INDICATORS IN THE PAST 30 DAYS

There are nine psychosocial indicators assessed at admission and discharge. Patients (n = 130) reported a decline in all indicators over the course of treatment (see Figure B.5).





The average numbers of psychosocial indicators at the time of admission was 3.5, and it declined at discharge to 1.3. This change was statistically significant (see Table B.10).

¹³ The analysis was not performed by year due to small samples in 2019 and 2020.

Time of assessment	Average number of days gambled in the last 30 days		
	(n = 130)		
Admission	3.5		
Discharge	1.3		
p < .001			

Table B.10. Average number of psychosocial indicators among discharged patients

SECTION C. SIX-MONTH FOLLOW-UP

COMPARING PATIENTS' DEMOGRAPHICS, DISCHARGE STATUS, AND LENGTH OF SERVICE Starting in 2019, the follow-up data are based on an assessment 6 months from admission. Therefore, some patients who completed the questionnaire are still in a treatment program. Thus, the follow-up data are based on admissions in 2019 and 2020. The results of this section should be taken with caution since the number of patients (n=35) is low.

Demographic characteristics reported on the I-SMART Admission assessment and the 6-month follow-up samples are shown below. Respondents in the 6-month follow-up were more likely to have had some college education and be older compared to the patients at admission in 2019.

	Admission (n=191)	6-month follow-up (n=35)
Gender	()	()
Male	57%	51%
Female	43%	49%
Ethnicity		
No Hispanic/Latino	96%	100%
Race		
Caucasian	93%	97%
African American	2%	0%
Other	5%	3%
Relationship		
Single	40%	34%
Married or cohabitating	36%	37%
Divorced, separated, or widowed	23%	29%
Education		
High school or GED or less	63%	51%
Some college or more	37%	49%
Employment status		
Full/part time	45%	46%
Unemployed or unable to work	55%	54%
Age group*		
18-34 years	29%	14%
35-54 years	46%	37%
55 or more	25%	49%

Table C.1. Demographics of patients in admission and 6-month follow-up samples

SATISFACTION WITH TREATMENT

Of the patients who responded to the 6-month follow-up assessment, 49% rated the program as "excellent" while 51% of participants stated that their satisfaction with the services received so far was either good, fair, or poor (see Table C.2).

			Completion of treatment					
Treatment rating	Total (n=35)		Incomplete (n=19)		Complete (n=12)		Still in treatment (n=4)	
	n	%	n	%	n	%	n	%
Excellent	17	49%	8	42%	8	67%	1	25%
Good, fair, poor	18	51%	11	58%	4	33%	3	75%

PSYCHOSOCIAL INDICATORS AT ADMISSION AND 6-MONTH FOLLOW-UP

There were 35 patients who completed assessments at admission and 6-month follow-up. The nine psychosocial indicators across assessments are shown below (see Figure C.1). They are based on patients matched in admission and 6-month follow up (n=35). Although the number of patients that could be assessed across the time is not robust, the frequency of the indicators show consistency with measures shown in the previous part of the report.

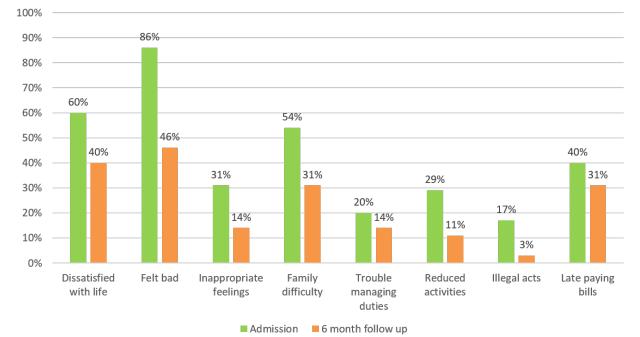


Figure C.1. Psychosocial indicators in the past 30 days at admission and 6-month follow-up.

SUMMARY AND CONCLUSIONS

The 2020 IGTO report assesses the extent to which problem gambling treatment services provided via the Office of Problem Gambling Treatment and Prevention are associated with positive outcomes for patients who received problem gambling treatment from the Integrated Provider Network (IPN). Because the IPN started its services in January of 2019, this report also reflects the change and the limited amount of data that can be used for the evaluation. During the COVID-19 pandemic in 2020, many IPN agencies conducted their services via telehealth rather than in person. This likely deterred some people from seeking treatment services. As a result, the number of admissions in the IPN decreased in 2020. Consequently, this lead to the number of 6 month follow-up assessments being considerably lower than in previous years.

Most of the indicators of process and outcome shown in this report are consistent with the previous years' reports (e.g. treatment reduces the gambling behaviors and improves the psychosocial indicators over time). However, the total number of patients in the system since January of 2019 to December of 2020 is still relatively small. It is clear that the IPN will need more time to be fully implemented, and the analysis and the results in the coming years will cover more areas of interest as the data allow.

Although, the numbers of patients in assessments are limited, the 2020 data show a decline in the total number of admissions. Moreover, the data may suggest that among those admitted to treatment programs, the number of services are fewer than the previous years. Thus, future efforts should focus on understanding and reducing the barriers to accessing gambling treatment, and special attention may need to be given to treatment retention.

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