

Benefits Reported on the Patient Self-Evaluation: Patients with First Enrollment July 2015-June 2017

Summary

Of patients included on the standard 8 symptom analysis (n = 6924), more than half experienced moderate to severe symptoms at baseline on all measures except for nausea (49%) and vomiting (23%). Of patients experiencing moderate to severe symptoms at baseline, anywhere between 33% and 66% achieved at least a 30% reduction in symptom severity (symptom improvement) within 4 months of their first medical cannabis purchase. The lowest proportion of patients reporting symptom improvements in the initial 4-month period were for pain (33%) and fatigue (44%) symptoms, while the greatest proportion of patients reporting symptom improvements were for vomiting (66%), nausea (60%), depression (59%), and lack of appetite (58%) symptoms. Similarly, a smaller proportion of patients were able to maintain those symptom improvements in the following 4-months for pain (41%) and fatigue (50%) symptoms compared to all other symptoms (maintained anywhere by 56%-66% of patients).

Benefits Reported on the Patient Self-Evaluation: Patients with First Enrollment July 2015-June 2017

The patient self-evaluation is required for patients to complete prior to each medical cannabis purchase. It includes questions to assess symptom severity, some of which are administered to all patients (standard set of 8 symptom measures) and some of which are tailored to symptoms for a given condition (condition-specific symptom measures). Since symptom data is collected prior to each patient's first medical cannabis purchase, symptom changes can be assessed over time and compared to baseline (baseline = patient responses to symptom questions just prior to their first medical cannabis purchase).

Standard 8 Symptom Measures

The standard 8 symptom measures that all patients receive are answered on a 0-10 numerical rating scale (NRS), with 0 indicating absence of the symptom to 10 indicating that the symptom is as bad as the patient can imagine (see Box 1). Therefore, higher scores on these measures indicate poorer management of these symptoms. Patients are asked to rate symptom severity over the past 24 hours.

Box 1. Listing of the Standard 8 symptom measures that all patients answer, including the response options available to patients.

<u>Standard 8 Symptom Measures:</u>										
Anxiety					Fatigue					
Lack of Appetite					Nausea					
Depression					Pain					
Disturbed Sleep					Vomiting					
<u>Response Options (0 – 10 NRS):</u>										
0 1 2 3 4 5 6 7 8 9 10										
Symptom not present					Symptom as bad as one can image					

To understand whether patients derived any symptom benefits during their participation in the program, the following two questions were explored for each Standard 8 symptom measure:

QUESTION 1

Of those patients who experienced moderate to severe symptoms at baseline (score of 4 or higher at baseline), what percentage of them experienced at least a 30% improvement in symptoms within four months of their first medical cannabis purchase? The threshold of $\geq 30\%$ reduction on a 0-10 point scale was chosen because this threshold has been documented in clinical trials to represent clinically meaningful change – especially for pain reduction and spasticity reduction. Examples of $\geq 30\%$ change include moving from a score of 10 to a score of 7, from 9 to 6, from 8 to 5, from 7 to 4, etc.

QUESTION 2

If a patient achieved at least a 30% improvement on symptoms within 4 months of their first medical cannabis purchase (determined in Question 1), what percentage of them will, on average, still maintain that level of improvement in the four months following that initial 30% symptom improvement? [Four-month follow-up period]

Results on Standard 8 Symptom Measures

See Table 1 for results. The third column displays the percentage and number of patients (out of 6924 patients) experiencing moderate to severe symptoms at baseline (baseline response ≥ 4) on a given Standard 8 measure. Fourth column represents answer to Question 1: percentage (and number) of moderate to severe scorers at baseline who achieved at least a 30% symptom improvement at any time within 4 months of their first medical cannabis purchase. Fifth column

BENEFITS REPORTED ON THE PATIENT SELF-EVALUATION: PATIENTS WITH FIRST ENROLLMENT JULY 2015-JUNE 2017

shows the number of patients that had submitted symptom data during their designated 4-mo follow-up period (4 month time window that followed their initial symptom improvement). Symptom responses during this 4-mo time period were averaged together within each patient. The sixth column shows the percentage and number of patients who had achieved $\geq 30\%$ symptom improvement that had – on average – maintained at least that level of improvement in the 4-month follow-up period. Lastly, the seventh column shows the percentage of all patients who both achieved at least a 30% improvement in the first 4 months since their first medical cannabis purchase and maintained that improvement on average in the 4-month follow-up period.

Table 1. Overall Standard 8 Symptom Results (n = 6924).

All patients collapsed across conditions (n=6924)

*within 4 months of First Purchase (n)

**for at least 4 months (n)

Standard 8 Symptom Measure	% of Patients Reporting at Moderate to Severe Symptoms at Baseline (n)	% of Patients Achieving $\geq 30\%$ Symptom Improvement*	# of Patients with Data in 4-mo Period Following Initial $\geq 30\%$ Symptom Improvement	% of Patients Who Achieved $\geq 30\%$ Symptom Improvement that Maintained it**	% of Patients that Both Achieved $\geq 30\%$ Symptom Improvement and Maintained It**
Anxiety	76.1 (5270)	56.4 (2972)	2449	58.0 (1724)	32.7
Appetite Lack	56.3 (3900)	57.9 (2257)	1879	60.1 (1357)	34.8
Depression	65.2 (4511)	59.2 (2672)	2204	59.5 (1589)	35.2
Disturbed Sleep	88.3 (6116)	54.9 (3358)	2829	56.1 (1885)	30.8
Fatigue	92.4 (6401)	43.6 (2791)	2366	49.7 (1388)	21.7
Nausea	48.5 (3361)	59.5 (2000)	1660	61.9 (1237)	36.8
Pain	93.8 (6497)	32.7 (2124)	1783	40.8 (866)	13.3
Vomiting	22.7 (1571)	65.6 (1031)	830	66.1 (681)	43.3

Results on Standard 8 Symptom Measures Stratified by Qualifying Condition

Tables 2-11 below shows the responses to the standard 8 symptoms stratified by qualifying condition.

Table 2. Standard 8 Symptom Results in Patients with Intractable Pain (n = 4060).

*within 4 months of First Purchase (n)

**for at least 4 months (n)

Standard 8 Symptom Measure	% of Patients Reporting at Moderate to Severe Symptoms at Baseline (n)	% of Patients Achieving ≥ 30% Symptom Improvement*	# of Patients with Data in 4-mo Period Following Initial ≥ 30% Symptom Improvement	% of Patients Who Achieved ≥ 30% Symptom Improvement that Maintained it**	% of Patients that Both Achieved ≥ 30% Symptom Improvement and Maintained It**
Anxiety	76.5 (3107)	58.2 (1809)	1563	58.6 (1060)	34.1
Appetite Lack	51.8 (2102)	62.2 (1307)	1140	61.6 (805)	38.3
Depression	66.2 (2689)	61.1 (1643)	1413	59.9 (984)	36.6
Disturbed Sleep	90.6 (3677)	57.3 (2107)	1831	56.5 (1190)	32.4
Fatigue	93.4 (3793)	45.7 (1735)	1531	49.8 (864)	22.8
Nausea	44.5 (1808)	64.3 (1163)	999	61.6 (716)	39.6
Pain	99.6 (4045)	29.4 (1188)	1076	35.8 (425)	10.5
Vomiting	18.5 (752)	71.8 (540)	454	70.0 (378)	50.3

Table 3. Standard 8 Symptom Results in Patients with Muscle Spasms (n = 1403).

*within 4 months of First Purchase (n)

**for at least 4 months (n)

Standard 8 Symptom Measure	% of Patients Reporting at Moderate to Severe Symptoms at Baseline (n)	% of Patients Achieving ≥ 30% Symptom Improvement*	# of Patients with Data in 4-mo Period Following Initial ≥ 30% Symptom Improvement	% of Patients Who Achieved ≥ 30% Symptom Improvement that Maintained it**	% of Patients that Both Achieved ≥ 30% Symptom Improvement and Maintained It**
Anxiety	80.2 (1125)	58.0 (653)	543	58.5 (382)	34.0
Appetite Lack	57.0 (800)	62.0 (496)	422	63.1 (313)	39.1
Depression	67.1 (941)	60.9 (573)	483	61.6 (353)	37.5
Disturbed Sleep	90.2 (1266)	53.0 (671)	586	58.7 (394)	31.1
Fatigue	92.7 (1301)	44.6 (580)	502	53.1 (308)	23.7
Nausea	47.9 (672)	65.5 (440)	378	65.5 (288)	42.9
Pain	95.8 (1344)	35.7 (480)	424	46.7 (224)	16.7
Vomiting	23.6 (331)	69.8 (231)	195	71.0 (164)	49.5

Table 4. Standard 8 Symptom Results in Patients with Cancer (n = 1029).

*within 4 months of First Purchase (n)

**for at least 4 months (n)

Standard 8 Symptom Measure	% of Patients Reporting at Moderate to Severe Symptoms at Baseline (n)	% of Patients Achieving ≥ 30% Symptom Improvement*	# of Patients with Data in 4-mo Period Following Initial ≥ 30% Symptom Improvement	% of Patients Who Achieved ≥ 30% Symptom Improvement that Maintained it**	% of Patients that Both Achieved ≥ 30% Symptom Improvement and Maintained It**
Anxiety	74.8 (770)	43.5 (335)	259	56.7 (190)	24.7
Appetite Lack	77.4 (796)	38.4 (306)	237	51.0 (156)	19.6
Depression	66.7 (686)	45.9 (315)	239	54.6 (172)	25.1
Disturbed Sleep	85.4 (879)	42.3 (372)	285	48.4 (180)	20.5
Fatigue	94.7 (974)	26.6 (259)	211	40.5 (105)	10.8
Nausea	65.7 (676)	37.9 (256)	197	55.9 (143)	21.2
Pain	89.1 (917)	30.0 (275)	207	40.4 (111)	12.1
Vomiting	36.2 (373)	46.9 (175)	133	58.3 (102)	27.3

Table 5. Standard 8 Symptom Results in Patients with Seizures (n = 506).

*within 4 months of First Purchase (n)

**for at least 4 months (n)

Standard 8 Symptom Measure	% of Patients Reporting at Moderate to Severe Symptoms at Baseline (n)	% of Patients Achieving ≥ 30% Symptom Improvement*	# of Patients with Data in 4-mo Period Following Initial ≥ 30% Symptom Improvement	% of Patients Who Achieved ≥ 30% Symptom Improvement that Maintained it**	% of Patients that Both Achieved ≥ 30% Symptom Improvement and Maintained It**
Anxiety	70.8 (358)	67.3 (241)	211	67.6 (163)	45.5
Appetite Lack	49.0 (248)	74.6 (185)	161	71.4 (132)	53.2
Depression	55.7 (282)	74.1 (209)	180	70.8 (148)	52.5
Disturbed Sleep	79.2 (401)	68.3 (274)	245	61.7 (169)	42.1
Fatigue	84.2 (426)	62.0 (264)	241	59.1 (156)	36.6
Nausea	44.3 (224)	74.1 (166)	149	75.9 (126)	56.3
Pain	64.2 (325)	58.2 (189)	168	63.0 (119)	36.6
Vomiting	25.5 (129)	79.1 (102)	92	77.5 (79)	61.2

Table 6. Standard 8 Symptom Results in Patients with Inflammatory Bowel Disease, including Crohn’s Disease (n = 287).

*within 4 months of First Purchase (n)

**for at least 4 months (n)

Standard 8 Symptom Measure	% of Patients Reporting at Moderate to Severe Symptoms at Baseline (n)	% of Patients Achieving ≥ 30% Symptom Improvement*	# of Patients with Data in 4-mo Period Following Initial ≥ 30% Symptom Improvement	% of Patients Who Achieved ≥ 30% Symptom Improvement that Maintained it**	% of Patients that Both Achieved ≥ 30% Symptom Improvement and Maintained It**
Anxiety	74.9 (215)	63.7 (137)	121	65.7 (90)	41.9
Appetite Lack	69.3 (199)	59.8 (119)	109	64.7 (77)	38.7
Depression	61.3 (176)	61.4 (108)	97	70.4 (76)	43.2
Disturbed Sleep	83.6 (240)	57.1 (137)	130	64.2 (88)	36.7
Fatigue	92.0 (264)	46.6 (123)	110	59.3 (73)	27.7
Nausea	69.3 (199)	66.8 (133)	112	66.2 (88)	44.2
Pain	91.6 (263)	49.8 (131)	116	55.0 (72)	27.4
Vomiting	31.7 (91)	73.6 (67)	63	77.6 (52)	57.1

Table 7. Standard 8 Symptom Results in Patients with Terminal Illness (n = 147).

*within 4 months of First Purchase (n)

**for at least 4 months (n)

Standard 8 Symptom Measure	% of Patients Reporting at Moderate to Severe Symptoms at Baseline (n)	% of Patients Achieving ≥ 30% Symptom Improvement*	# of Patients with Data in 4-mo Period Following Initial ≥ 30% Symptom Improvement	% of Patients Who Achieved ≥ 30% Symptom Improvement that Maintained it**	% of Patients that Both Achieved ≥ 30% Symptom Improvement and Maintained It**
Anxiety	78.2 (115)	44.3 (51)	43	56.9 (29)	25.2
Appetite Lack	76.2 (112)	38.4 (43)	33	51.2 (22)	19.6
Depression	72.1 (106)	46.2 (49)	39	59.2 (29)	27.4
Disturbed Sleep	82.3 (121)	42.1 (51)	47	54.9 (28)	23.1
Fatigue	94.6 (139)	23.7 (33)	29	36.4 (12)	8.6
Nausea	61.9 (91)	45.1 (41)	37	65.9 (27)	29.7
Pain	91.2 (134)	20.9 (28)	21	39.3 (11)	8.2
Vomiting	34.7 (51)	52.9 (27)	24	55.6 (15)	29.4

Table 8. Standard 8 Symptom Results in Patients with HIV/AIDS (n = 90).

*within 4 months of First Purchase (n)

**for at least 4 months (n)

Standard 8 Symptom Measure	% of Patients Reporting at Moderate to Severe Symptoms at Baseline (n)	% of Patients Achieving ≥ 30% Symptom Improvement*	# of Patients with Data in 4-mo Period Following Initial ≥ 30% Symptom Improvement	% of Patients Who Achieved ≥ 30% Symptom Improvement that Maintained it**	% of Patients that Both Achieved ≥ 30% Symptom Improvement and Maintained It**
Anxiety	85.6 (77)	44.2 (34)	31	70.6 (24)	31.2
Appetite Lack	73.3 (66)	50.0 (33)	29	63.6 (21)	31.8
Depression	66.7 (60)	48.3 (29)	26	75.9 (22)	36.7
Disturbed Sleep	88.9 (80)	46.3 (37)	32	54.1 (20)	25.0
Fatigue	83.3 (75)	41.3 (31)	25	48.4 (15)	20.0
Nausea	63.3 (57)	56.1 (32)	28	65.6 (21)	36.8
Pain	87.8 (79)	36.7 (29)	23	44.8 (13)	16.5
Vomiting	31.1 (28)	50.0 (14)	12	78.6 (11)	39.3

Table 9. Standard 8 Symptom Results in Patients with Glaucoma (n = 61).

*within 4 months of First Purchase (n)

**for at least 4 months (n)

Standard 8 Symptom Measure	% of Patients Reporting at Moderate to Severe Symptoms at Baseline (n)	% of Patients Achieving ≥ 30% Symptom Improvement*	# of Patients with Data in 4-mo Period Following Initial ≥ 30% Symptom Improvement	% of Patients Who Achieved ≥ 30% Symptom Improvement that Maintained it**	% of Patients that Both Achieved ≥ 30% Symptom Improvement and Maintained It**
Anxiety	73.8 (45)	44.4 (20)	18	50.0 (10)	22.2
Appetite Lack	37.7 (23)	69.6 (16)	12	56.3 (9)	39.1
Depression	59.0 (36)	58.3 (21)	18	47.6 (10)	27.8
Disturbed Sleep	83.6 (51)	43.1 (22)	19	63.6 (14)	27.5
Fatigue	90.2 (55)	38.2 (21)	17	42.9 (9)	16.4
Nausea	32.8 (20)	45.0 (9)	7	66.7 (6)	30.0
Pain	83.6 (51)	41.2 (21)	19	42.9 (9)	17.6
Vomiting	16.4 (10)	60.0 (6)	5	83.3 (5)	50.0

Table 10. Standard 8 Symptom Results in Patients with Tourette Syndrome (n = 58).

*within 4 months of First Purchase (n)

**for at least 4 months (n)

Standard 8 Symptom Measure	% of Patients Reporting at Moderate to Severe Symptoms at Baseline (n)	% of Patients Achieving ≥ 30% Symptom Improvement*	# of Patients with Data in 4-mo Period Following Initial ≥ 30% Symptom Improvement	% of Patients Who Achieved ≥ 30% Symptom Improvement that Maintained it**	% of Patients that Both Achieved ≥ 30% Symptom Improvement and Maintained It**
Anxiety	91.4 (53)	64.2 (34)	30	58.8 (20)	37.7
Appetite Lack	31.0 (18)	61.1 (11)	9	81.8 (9)	50.0
Depression	65.5 (38)	71.1 (27)	25	81.5 (22)	57.9
Disturbed Sleep	74.1 (43)	74.4 (32)	30	68.8 (22)	51.2
Fatigue	74.1 (43)	58.1 (25)	23	60.0 (15)	34.9
Nausea	17.2 (10)	90.0 (9)	8	66.7 (6)	60.0
Pain	56.9 (33)	63.6 (21)	20	71.4 (15)	45.5
Vomiting	5.2 (3)	66.7 (2)	2	100.0 (2)	66.7

Table 11. Standard 8 Symptom Results in Patients with ALS (n = 36).

*within 4 months of First Purchase (n)

**for at least 4 months (n)

Standard 8 Symptom Measure	% of Patients Reporting at Moderate to Severe Symptoms at Baseline (n)	% of Patients Achieving ≥ 30% Symptom Improvement*	# of Patients with Data in 4-mo Period Following Initial ≥ 30% Symptom Improvement	% of Patients Who Achieved ≥ 30% Symptom Improvement that Maintained it**	% of Patients that Both Achieved ≥ 30% Symptom Improvement and Maintained It**
Anxiety	69.4 (25)	52.0 (13)	10	53.8 (7)	28.0
Appetite Lack	38.9 (14)	71.4 (10)	7	50.0 (5)	35.7
Depression	69.4 (25)	40.0 (10)	8	50.0 (5)	20.0
Disturbed Sleep	77.8 (28)	35.7 (10)	10	80.0 (8)	28.6
Fatigue	91.7 (33)	30.3 (10)	10	60.0 (6)	18.2
Nausea	30.6 (11)	63.6 (7)	6	71.4 (5)	45.5
Pain	75.0 (27)	48.1 (13)	12	30.8 (4)	14.8
Vomiting	8.3 (3)	66.7 (2)	2	100.0 (2)	66.7

Condition-Specific Symptom Measures

Besides the Standard 8 measures which are administered to all patients, some patients received additional symptom questions on the PSE to more adequately address condition-specific symptoms. These include, among others, questions on seizure frequency for seizure patients, questions on spasm frequency for muscle spasm and ALS patients, and Crohn's activity in Crohn's patients. While patients received the same response options on the Standard 8 measures (respond from 1-10 on a numerical rating scale), response options for condition-specific measures varied as indicated in Table 12.

All condition-specific measures were investigated within the same framework as the Standard 8 measures: 1) what percentage of patients achieved symptom improvement within the four months since their first medical cannabis purchase compared to their baseline responses, and 2) what percentage of those achieving symptom improvement showed general persistence in the 4-month follow-up period. A summary of results are similarly presented in a table like those presented for the Standard 8 measures (see Table 12 below).

Table 12. Results on Symptom Improvements on Condition-Specific Measures.

*within 4 months of First Purchase (n)

**for at least 4 months (n)

Condition	Condition-Specific Symptom Measure	# of Patients Included in Analysis	% of Patients Achieving Threshold Symptom Improvement*	# of Patients with Data in 4-mo Period Following Initial Threshold Symptom Improvement	% of Patients Who Achieved Threshold Symptom Improvement that Maintained it**	% of Patients that Both Achieved Threshold Symptom Improvement and Maintained it**
Intractable Pain	Composite PEG Measure	3982	44.1 (1755)	1540	49.0 (860)	21.6
	<i>Pain Intensity</i>	3977	36.6 (1455)	1279	45.3 (659)	16.6
	<i>Life Enjoyment Interference</i>	3962	49.7 (1968)	1719	50.6 (995)	25.1
	<i>General Activity Interference</i>	3951	50.0 (1976)	1713	51.3 (1013)	25.6
Muscle Spasms	Weekly Spasms Frequency	1365	51.1 (698)	556	54.3 (379)	27.8
	0-10 Spasticity Scale	1292	40.1 (518)	443	45.6 (236)	18.3
Cancer: Cachexia/Wasting	Weight	345	11.6 (40)	29	45.0 (18)	5.2
Seizures	Weekly Seizure Frequency	469	62.5 (293)	245	66.2 (194)	41.4

Table 12 Continued. Results on Symptom Improvements on Condition-Specific Measures.

*within 4 months of First Purchase (n)

**for at least 4 months (n)

Condition	Condition-Specific Symptom Measure	# of Patients Included in Analysis	% of Patients Achieving Threshold Symptom Improvement*	# of Patients with Data in 4-mo Period Following Initial Symptom Improvement	% of Patients Who Achieved Threshold Symptom Improvement that Maintained it**	% of Patients that Both Achieved Threshold Symptom Improvement and Maintained it**
Inflammatory Bowel Disease, Including Crohn's Disease	Subset of HBI Measures Combined	287	58.5 (168)	144	51.8 (87)	30.3
	<i># Liquid Stools</i>	111	56.8 (63)	52	65.1 (41)	36.9
	<i>Abdominal Pain</i>	192	59.9 (115)	99	44.3 (51)	26.6
	<i>General Well-Being</i>	52	59.6 (31)	25	35.5 (11)	21.2
	Weight	287	16.4 (47)	42	55.3 (26)	9.1
Terminal Illness: Cachexia/Wasting	Weight	51	21.6 (11)	8	45.5 (5)	9.8
HIV/AIDS	Weight	90	16.7 (15)	8	46.7 (7)	7.8
Tourette Syndrome	Weekly Tic Frequency	58	51.7 (30)	24	63.3 (19)	32.8
ALS	Weekly Spasms Frequency	33	39.4 (13)	10	46.2 (6)	18.2
	0-10 Spasticity Scale	23	21.7 (5)	5	80.0 (4)	17.4

Glaucoma patients were also administered their own condition-specific measure, which was to report on the most recent intraocular pressure test (IOP) result and the date the test was administered on each patient self-evaluation. However, rather than analyzing for changes on the IOP test compared to a baseline IOP result, these results are presented below as reported by the patients (see Table 13). All IOP test results represented to the left of the “First Visit” column indicate results from tests occurring prior to the patient’s first medical cannabis purchase; everything to the right of that column are results occurring after the patient’s first purchase. Column names refer to month in which the test was reported to occur prior to or after first purchase. Note that these results are not directly coming from the practitioner who administered the IOP test – reliance on patient documentation and/or memory is a limitation in interpreting these results.

Table 13. Patient-Reported Intraocular Pressure Test Results from Glaucoma Patients (n = 61): Left Eye/Right Eye.

* before first medical cannabis purchase

** after first medical cannabis purchase

Pat ien t	33- mo *	24- mo *	13- mo *	11- mo *	10- mo *	9- mo *	8- mo *	7- mo *	6- mo *	5- mo *	4- mo *	3- mo *	2- mo *	1- mo *	1- mo **	2- mo **	3- mo **	4- mo **	5- mo **	6- mo **	7- mo **	8- mo **	9- mo **	10- mo **	11- mo **	12- mo **	13- mo **
1				15 / 11														11 / 10		7 / 12							
2														20 / 17		17 / 14									18 / 16		
3														18 / 20	19 / 18			18 / 18		19 / 22	19 / 18						
4													26 / 28	26 / 28		18 / 18				18 / 16							
5														21 / 26													
6										20 / 20					20 / 20												
7														17 / 15													
8												34 / 30							33 / 33					26 / 24			

Table 13 Continued. Patient-Reported Intraocular Pressure Test Results from Glaucoma Patients (n = 61): Left Eye/Right Eye.

* before first medical cannabis purchase

** after first medical cannabis purchase

Pat ien t	33- mo *	24- mo *	13- mo *	11- mo *	10- mo *	9- mo *	8- mo *	7- mo *	6- mo *	5- mo *	4- mo *	3- mo *	2- mo *	1- mo *	1- mo **	2- mo **	3- mo **	4- mo **	5- mo **	6- mo **	7- mo **	8- mo **	9- mo **	10- mo **	11- mo **	12- mo **	13- mo **	
9														26 / 23	17 / 18													
10													30 / 30															
11										22 / 24	27 / 21	21 / 24																
12														12 / 10		12 / 12												
13														22 / 14	22 / 14													
14														9/ 26		8/ 12												
15													17 / 18		19 / 24													
16				22 / 20											16 / 16		17 / 17	16 / 16							18 / 19			

Table 13 Continued. Patient-Reported Intraocular Pressure Test Results from Glaucoma Patients (n = 61): Left Eye/Right Eye.

* before first medical cannabis purchase

** after first medical cannabis purchase

Pat ien t	33- mo *	24- mo *	13- mo *	11- mo *	10- mo *	9- mo *	8- mo *	7- mo *	6- mo *	5- mo *	4- mo *	3- mo *	2- mo *	1- mo *	1- mo **	2- mo **	3- mo **	4- mo **	5- mo **	6- mo **	7- mo **	8- mo **	9- mo **	10- mo **	11- mo **	12- mo **	13- mo **			
17														23 / 23	16 / 16	19 / 25		16 / 19	16 / 19							16 / 18				
18												10 / 12				12 / 15														
19														30 / 22		19 / 16		26 / 16												
20													17 / 19	19 / 17	19 / 17															
21														17 / 26	17 / 28		20 / 25				19 / 20								24 / 28	
22					13 / 14							12 / 13																		
23			19 / 18											19 / 18				15 / 15												
24														12 / 15			14 / 14	12 / 12												

Table 13 Continued. Patient-Reported Intraocular Pressure Test Results from Glaucoma Patients (n = 61): Left Eye/Right Eye.

* before first medical cannabis purchase

** after first medical cannabis purchase

Pat ien t	33- mo *	24- mo *	13- mo *	11- mo *	10- mo *	9- mo *	8- mo *	7- mo *	6- mo *	5- mo *	4- mo *	3- mo *	2- mo *	1- mo *	1- mo **	2- mo **	3- mo **	4- mo **	5- mo **	6- mo **	7- mo **	8- mo **	9- mo **	10- mo **	11- mo **	12- mo **	13- mo **
25														16 / 16				14 / 14	14 / 14			14 / 13					
26														26 / 26													
27														10 / 12													
28													14 / 16														
29												25 / 25				16 / 16			16 / 14								
30												26 / 29															
31					22 / 21															22 / 21							
32														1/ 1			8/ 10										

Table 13 Continued. Patient-Reported Intraocular Pressure Test Results from Glaucoma Patients (n = 61): Left Eye/Right Eye.

* before first medical cannabis purchase

** after first medical cannabis purchase

Pat ien t	33- mo *	24- mo *	13- mo *	11- mo *	10- mo *	9- mo *	8- mo *	7- mo *	6- mo *	5- mo *	4- mo *	3- mo *	2- mo *	1- mo *	1- mo **	2- mo **	3- mo **	4- mo **	5- mo **	6- mo **	7- mo **	8- mo **	9- mo **	10- mo **	11- mo **	12- mo **	13- mo **	
33														16 / 30	12 / 19		9/ 19											
34														19 / 18			14 / 16											
35														16 / 14														
36													25 / 25						24 / 25			21 / 21						
37														24 / 25		24 / 23	22 / 22	19 / 19							19 / 19			
38												17 / 18	17 / 18								16 / 16							
39														17 / 17		14 / 8						14 / 8						
40		15 / 15													12 / 11			12 / 11										

Table 13 Continued. Patient-Reported Intraocular Pressure Test Results from Glaucoma Patients (n = 61): Left Eye/Right Eye.

* before first medical cannabis purchase

** after first medical cannabis purchase

Pat ien t	33- mo *	24- mo *	13- mo *	11- mo *	10- mo *	9- mo *	8- mo *	7- mo *	6- mo *	5- mo *	4- mo *	3- mo *	2- mo *	1- mo *	1- mo **	2- mo **	3- mo **	4- mo **	5- mo **	6- mo **	7- mo **	8- mo **	9- mo **	10- mo **	11- mo **	12- mo **	13- mo **	
41														20 / 21														
42													1/ 1		1/ 1	1/ 1				1/ 1								
43														12 / 12														
44											17 / 23			27 / 18										17 / 21				
45									21 / 16							18 / 15				15 / 18								
46				18 / 18													19 / 20											
47														20 / 19														
48	20 / 24																		20 / 24									

Table 13 Continued. Patient-Reported Intraocular Pressure Test Results from Glaucoma Patients (n = 61): Left Eye/Right Eye.

* before first medical cannabis purchase

** after first medical cannabis purchase

Pat ien t	33- mo *	24- mo *	13- mo *	11- mo *	10- mo *	9- mo *	8- mo *	7- mo *	6- mo *	5- mo *	4- mo *	3- mo *	2- mo *	1- mo *	1- mo **	2- mo **	3- mo **	4- mo **	5- mo **	6- mo **	7- mo **	8- mo **	9- mo **	10- mo **	11- mo **	12- mo **	13- mo **	
49														39 / 39			15 / 14											
50														12 / 12		16 / 15												
51														25 / 25														
52												17 / 17					18 / 18		16 / 14	12 / 14	12 / 11	12 / 11	12 / 11	12 / 11	12 / 12			
53								28 / 26																				
54														17 / 19			15 / 16				15 / 16				24 / 22			
55											23 / 23					17 / 19			15 / 16					21 / 21				
56				22 / 24																								

Table 13 Continued. Patient-Reported Intraocular Pressure Test Results from Glaucoma Patients (n = 61): Left Eye/Right Eye.

* before first medical cannabis purchase

** after first medical cannabis purchase

Pat ien t	33- mo *	24- mo *	13- mo *	11- mo *	10- mo *	9- mo *	8- mo *	7- mo *	6- mo *	5- mo *	4- mo *	3- mo *	2- mo *	1- mo *	1- mo **	2- mo **	3- mo **	4- mo **	5- mo **	6- mo **	7- mo **	8- mo **	9- mo **	10- mo **	11- mo **	12- mo **	13- mo **	
57														21 / 21							20 / 20	20 / 20						
58														25 / 23	23 / 19						16 / 18						16 / 18	
59														20 / 20	22 / 19		19 / 19		14 / 13			17 / 16	15 / 14			16 / 15		
60						18 / 25			15 / 18																			
61														15 / 15					18 / 18				20 / 20					

Caution is needed when interpreting the patient self-reported intra-ocular pressure results. It is possible that patients report incorrect values and dates of testing. Importantly, reported data provides little or no insight into changes in glaucoma therapies or other medications during the period after medical cannabis initiation. And, though we have record of which products are purchased when, without patient-level comparison of changes in product with changes in observed effect, we could miss differential impact of products. That analysis is beyond the scope of this report. With those caveats, we make the following summary observations.

After initiating medical cannabis use, 23 of the 61 patients (38%) reported intraocular pressure measurements with a decrease in intraocular pressure (IOP) ≥ 4 mm Hg in at least one eye, 18 (30%) reported no follow-up results in the year after medical cannabis initiation, and 20 (33%) reported follow-up values with no decrease in IOP ≥ 4 mm Hg (three had IOP decrease = 3 mm Hg in one eye).

Among the 23 showing a decrease in IOP ≥ 4 mm Hg, 17 reported more than one measurement during the year after following medical cannabis initiation. Among these 17 with multiple reported measurements, the ≥ 4 mm Hg decrease in IOP was present in the first reported post-initiation result for eleven (at months 1[x6], 2[x3], 3, and 4). In six patients, the ≥ 4 mm Hg decrease in IOP wasn't seen in initial reported result(s), but was present in a later result (at months 4, 5, 7, 8[x2], and 9). Among the six with only one post-initiation reported result, the ≥ 4 mm Hg decrease in IOP was seen at months 1, 2, 3[x2], 4, and 10. From these patterns, it appears that if medical cannabis use results in decreased IOP, the timing of that effect varies considerably.

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10/11/19

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