

CMA, Inc. Survey Three: Migraine Treatments

Chronic Migraine Awareness (CMA), Inc., is conducting a series of surveys on the migraine experience. The purpose of the survey series is to inform CMA, Inc. partners and volunteers, pharmaceutical companies, and the public about the various steps in the journey of people with migraine. For each survey, a link is posted across all CMA, Inc. social media platforms. Participants are recruited through these social media posts and by CMA volunteers who share the posts to their own social media outlets.

This third survey asked about the treatments respondents had used, were using, or were exploring for migraine. Data were collected from December 13, 2019 through January 19, 2020. Questions asked about:

- the first treatment ever used for migraine attacks,
- the first treatment ever used for migraine attacks *on the recommendation of a health care professional (HCP)*,
- treatments being explored for respondents' migraine disease,
- the number of separate, *preventive* pharmacological treatments currently in use to treat respondents' migraine disease,
- the number of separate, *acute* pharmacological treatments currently in use to treat respondents' migraine disease,
- reasons for switching from one migraine treatment to another,
- barriers to accessing migraine treatments, and
- experiences with step therapy or treatment coverage denial.

Each survey includes some basic demographic questions, as well as a question that aims to measure whether a person experiences chronic or episodic migraine. The latter measure simply asks on how many days the respondent had a headache or migraine attack in the last month; it is not fully aligned with the International Classification of Headache Disorders definition of migraine or chronic migraine. These questions not only provide context for comparing the samples across the survey series, but also allow for comparisons of the more substantive questions about the migraine experience.

Sample Demographics

A total of 303 responses were received on the third survey. Approximately 68% of respondents reported 15 or more headache or migraine days in the previous month (i.e., chronic) (Table 1). The mean number of days reported was 19. A majority of the sample was 40 years old or older: about 38% were 40-49, 26% were 50-59, and 8% were 60 years old or older. Only about 9% were less

than 30 years (Table 1). The vast majority of respondents were female (93%), with only 6% male, and other categories too few to report.

Comparatively, total annual household income was more normally distributed. Of those who answered, 19% reported a total income of less than \$25,000 in the previous year, 21% reported \$25,000 to \$49,999, 30% reported \$50,000 to \$99,999, 17% reported \$100,000 to \$149,999, and 13% reported a total income of \$150,000 or greater (Table 1).

Table 1. Sample Demographics

	Count	Percentage
Migraine Frequency¹		
Episodic	98	32.3%
Chronic	205	67.7%
Age		
Less than 20 years old	#	#
20-29 years old	23	8.0%
30-39 years old	55	19.1%
40-49 years old	108	37.5%
50-59 years old	75	26.0%
60 years old or older	24	8.3%
Gender		
Female	267	93.4%
Male	16	5.6%
Gender variant/non-binary	#	#
Other	#	#
Total Annual Household Income		
Less than \$25,000	44	18.6%
\$25,000 to \$49,999	50	21.2%
\$50,000 to \$99,999	71	30.1%
\$100,000 to \$149,000	40	16.9%
\$150,000 or more	31	13.1%

¹ Defined as 15 or more headache or migraine days in last month.

Too few to report.

The demographics of this sample should be considered in making generalizations to the larger population of people with migraine. Any comparisons of findings between surveys should also take into account a comparison of the demographics across surveys.¹

Treatments: Univariate Analysis

We asked respondents to report the first treatment they ever used for their migraine attacks. For this question, they were allowed to select only one option. The overwhelming majority reported

¹ See table A1 for comparison of demographics between surveys one, two, and three.

they first used over-the-counter (OTC) treatments (76%). A handful of respondents reported first using prescription acute (9%), prescription preventive (7%), prescription pain management (5%) treatments, or other treatments (2%) to treat their migraine attacks (Table 2).

We asked respondents to report the number of preventive and acute migraine treatments they were currently using. About 17% reported they were not currently using a preventive migraine treatment, 28% were currently on 1 preventive for migraine, 35% were on 2-3, and about 14% were on 4-5 preventive treatments. A small percentage (7%) reported they were currently using more than 5 preventive migraine treatments (Table 2).

Switching to the question of acute treatments, about 8% of those surveyed reported they were not currently using any acute migraine treatments. The most commonly reported response was 2-3 acute migraine treatments (47%). Twenty-seven percent of respondents were using just 1 acute treatment for migraine, 12% reported they were currently using 4-5 acute treatments, and about 6% reported using more than 5 acute migraine treatments. (Table 2).

Table 2. Migraine Treatments by Type Used, Number, and Those Being Explored

	Count	Percentage
First Treatment Ever Used For Migraine		
Over-the-counter treatments	230	76.2%
Prescription preventive treatments	20	6.6%
Prescription acute treatments	27	8.9%
Prescription pain management treatments	15	5.0%
Complementary/alternative treatments	#	#
Other	6	2.0%
First Treatment Tried For Migraine at Advice of Health Care Provider¹		
Prescription preventive	116	38.8%
Prescription acute	179	59.9%
Prescription pain management	38	12.7%
Over-the-counter treatments	44	14.7%
Prescription devices	#	#
Complementary/alternative therapy	8	2.7%
Other	10	3.3%
What Treatments for Migraine Are You Currently Exploring²		
Prescription preventive	197	76.4%
Prescription acute	169	65.5%
Prescription pain management	77	29.8%
Over-the-counter treatments	44	17.1%
Prescription devices	85	32.9%
Complementary/alternative therapy	148	57.4%
Surgical treatment	38	14.7%
Number of Preventive Migraine Treatments Currently Using		
None	50	16.8%
1	84	28.3%
2-3	103	34.7%
4-5	40	13.5%
More than 5	20	6.7%
Number of Acute Migraine Treatments Currently Using		
None	25	8.4%
1	80	27.0%
2-3	138	46.6%
4-5	36	12.2%
More than 5	17	5.7%

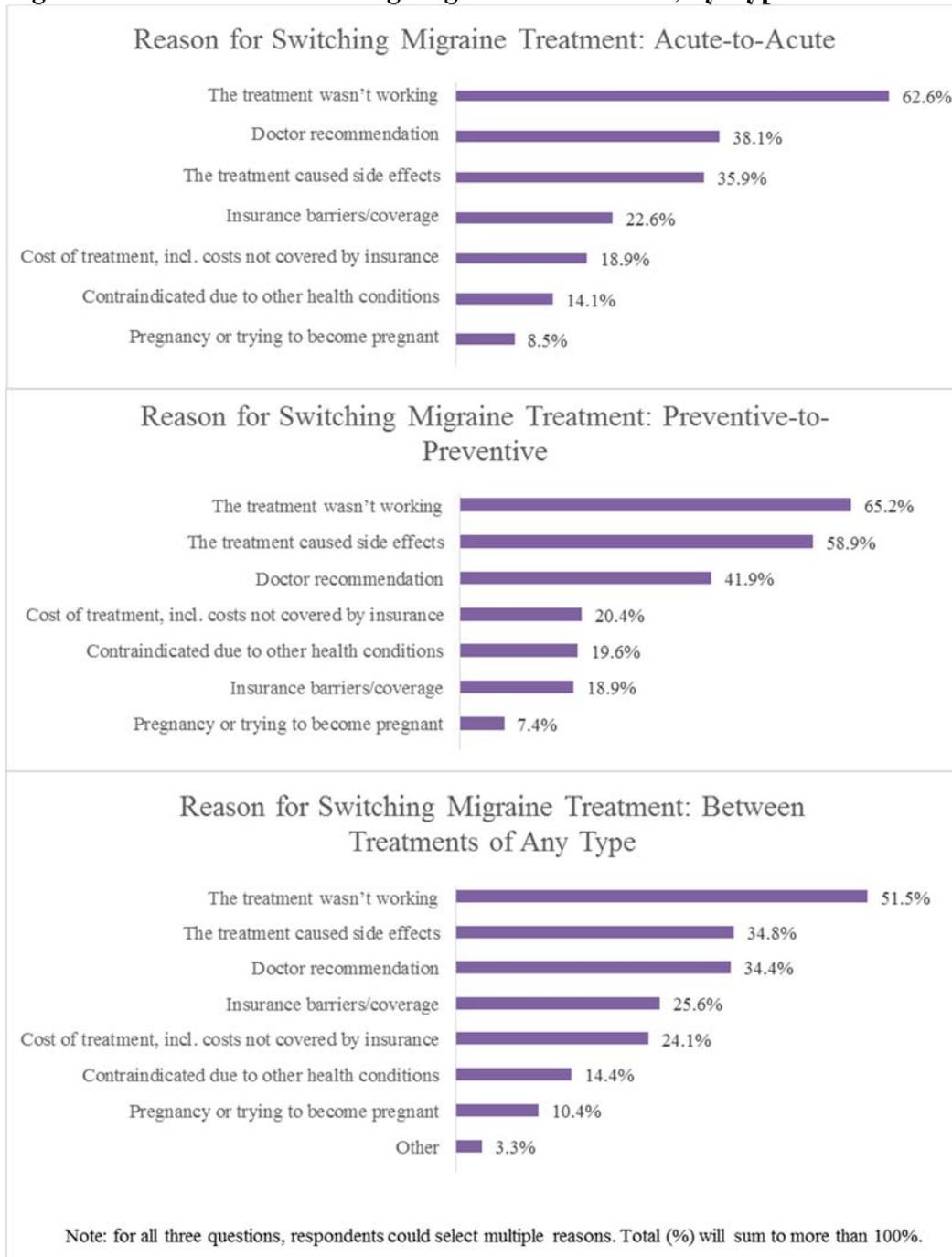
Too few cases to report.

¹ On this item, respondents could check all that apply. There were a total of 299 respondents with valid data. Totals will sum to (n) > 299 and (%) > 100.

² On this item, respondents could check all that apply. There were a total of 258 respondents with valid data. Totals will sum to (n) > 258 and (%) > 100.

We also asked a series of questions about reasons for switching migraine treatments: from one acute migraine treatment to another, from one preventive migraine treatment to another, and between migraine treatments of any type. People could select multiple responses. Across all three questions, the most common reason for switching was that the treatment wasn't working: acute treatment switches (63%), preventive treatment switches (65%), and switches between treatment types (52%) (Figure 1).

Figure 1. Reasons for Switching Migraine Treatments, by Type



Rounding out the top three were either doctor recommendation or the treatment caused side effects, though the order varied slightly for each category. For acute migraine treatments, 38% switched on doctor's recommendation and 36% switched because of side effects. For preventive migraine treatments, 59% switched because of side effects and 42% switched on a doctor's recommendation. For those who switched between migraine treatments of any type, 35% after experiencing side effects and 34% because of a doctor's recommendation (Figure 1).

The next most common answers related to cost and insurance. For acute migraine treatment changes, 23% changed because of insurance barriers or coverage issues and 19% switched because of cost. For preventive migraine treatments, 20% changed due to cost and 19% switched because of insurance barriers or coverage issues. For those who switched between migraine treatments, 26% reported insurance barriers and coverage as a reason and 24% cost (Figure 1). A smaller number of respondents reported switching acute, preventive, or between any migraine treatment because of contraindications with other health conditions or because they were pregnant or planning to become pregnant (7-20%, see Figure 1).

Finally, we asked a handful of questions about experiences with insurance access to migraine treatments. Just over half of those who responded said they had been required to try another migraine treatment before their insurance would approve one that had been prescribed by their HCP (51%) (i.e., step therapy). A slightly higher percentage (53%) reported they had been denied coverage for a migraine treatment(s) (Table 4).

In addition to these barriers to access, we asked about an assortment of more general access issues to treatments and care. This question allowed for multiple response options. Of those who responded, the most commonly reported barriers were related to insurance and coverage (72%) and costs of treatment (66%). The next most common were related to HCPs: distance to a HCP (38%) and travel or transportation to a HCP (31%) (Table 4).

Twenty-two percent of respondents reported that a barrier was finding a HCP who accepted their insurance. Of those who provided write-in responses under the "other" category, a handful of reported answers were consistent with HCPs not providing adequate care or treatment (7%) or poor appointment access or long wait times (5%). The remaining "other, write-ins" remained too heterogeneous to categorize (12%).

Table 4. Insurance Access and Barriers to Migraine Treatment

	Count	Percentage
Has Insurance Ever Required Step Therapy For Migraine Treatment		
Yes	147	51.2%
No	101	35.2%
I don't know	39	13.6%
Has Insurance Ever Denied Migraine Treatment		
Yes	152	53.0%
No	106	36.9%
I don't know	29	10.1%
Barriers to Accessing Migraine Treatments¹		
Insurance barriers/coverage	144	72.0%
Cost of treatment, including costs not covered by insurance	131	65.5%
Distance to a health care professional	75	37.5%
Travel or transportation to a HCP	61	30.5%
Access to a HCP who accepts my insurance	44	22.0%
Not provided expected/adequate treatment or medication by HCP ²	13	6.5%
Appointment access/long wait time ²	10	5.0%
Other	24	12.0%

¹ On this item, respondents could check all that apply. There were a total of 200 respondents with valid data. Totals will sum to (n) > 200 and (%) > 100.

² These categories were coded from “other: write-in” responses during analysis.

Key Treatment Measures by Migraine Frequency: Bivariate Analysis

We compared a number of measures within the survey, but due to the small numbers of respondents, our ability to make statistical comparisons is limited. We only report a few measures by migraine attack frequency. First, no clear pattern was found between migraine frequency (chronic vs. episodic) and the number of preventive migraine treatments. However, respondents who self-reported as chronic appear more likely to currently use 4 or more acute migraine treatments ($p < 0.01$). We acknowledge that precision is lost by transforming migraine frequency into a dichotomous measure and measuring treatments used as a categorical response, though.

For respondents with self-reported chronic migraine (15+ headache or migraine days per month), a greater proportion reported that they were both required to try another treatment first before insurance would approve one specifically prescribed by their doctor (i.e., step therapy) ($p < 0.10$)

and experienced insurance denials ($p < 0.05$) for their migraine treatments than those with episodic migraine.

Table 5. Comparison of Key Measures, Percentage by Episodic or Chronic Migraine Status

	Migraine Frequency	
	Episodic	Chronic ¹
Number of Preventive Migraine Treatments Currently Using		
None	22.9%	13.9%
1	31.3%	26.9%
2-3	29.2%	37.3%
4 or more	16.7%	21.9%
Number of Acute Migraine Treatments Currently Using***		
None	5.2%	10.0%
1	36.5%	22.5%
2-3	49.0%	45.5%
4 or more	9.4%	22.0%
Has Insurance Ever Required Step Therapy For Migraine Treatment*		
Yes	42.1%	55.7%
No	42.1%	31.8%
I don't know	15.8%	12.5%
Has Insurance Ever Denied Migraine Treatment**		
Yes	42.1%	58.3%
No	44.2%	33.3%
I don't know	13.7%	8.3%

¹ Defined as 15 or more headache or migraine days in last month.

* $p < 0.10$

** $p < 0.05$

*** $p < 0.01$

Conclusions

It is likely not a surprise that the overwhelming majority of people with migraine in this survey reported OTC treatments as the first treatment they ever tried for their migraine attacks. These are both accessible without a prescription (by definition) and, if migraine is not yet diagnosed, frequent, or severe, OTC treatments might be sufficient.

Upon seeking help from a health care provider, the most commonly reported treatments were prescription acute treatments (60%) and prescription preventive (39%). If most people started as low episodic, this would make sense, too. Often a triptan or other acute treatment is offered as the

first line of migraine treatment until attacks become more frequent or disabling (requiring a preventive).

Among those treatments people reported currently exploring for migraine, prescription preventives (76%) and acute (66%) treatments were most popular, followed by complementary/alternative (57%) treatments. We attribute this to the wave of recent new treatment approvals in these classes or the ease and general affordability of adopting many complementary/alternative treatment changes.

For those who reported switching between acute treatments, between preventive treatments, or between treatments of any kind: the most common reason for switching was that the treatment was not working. Rounding out the top three reasons for switching were either a doctor recommendation or that the treatment caused side effects, though order varied slightly depending on the treatment type. The next most common reasons were related to cost and insurance. So while financial reasons were important in this sample, respondents most often switched due to treatment efficacy or adverse events.

Finally, we want to highlight the finding that respondents with self-reported chronic migraine were more likely to experience step therapy ($p < 0.10$) or insurance denials ($p < 0.05$) for their migraine treatments than those with episodic migraine. This may be a product of the number or types of treatments they have tried.

It is worth noting that like the prior CMA, Inc. surveys, the sample is overwhelmingly female and a majority of people seem to have chronic migraine. Given the sampling and recruitment, this is not surprising; however, these rates are higher than what is typically found in population estimates of migraine.¹ While this should be kept in mind for the purposes of generalizability, it also highlights the uniqueness of the sample.

Acknowledgements

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References

1. Lipton RB, Manack Adams A, Buse DC, Fanning KM, Reed ML. A Comparison of the Chronic Migraine Epidemiology and Outcomes (CaMEO) Study and American Migraine Prevalence and Prevention (AMPP) Study: Demographics and Headache-Related Disability: Research Submission. *Headache J Head Face Pain*. 2016;56(8):1280-1289. doi:10.1111/head.12878

Appendix A. Comparison of Demographics across Surveys 1-3

Like prior CMA, Inc. surveys, a majority of this third survey sample reported “chronic” migraine. The mean number of migraine days per month fell between that of the first two surveys. Survey 1: mean = 20 days; survey 2: mean = 18 days; survey 3: mean = 19 days. Chi-square tests show that the only difference between survey samples one, two, and three were in the distribution of migraine frequency in the first two survey samples. Specifically, the distribution shifted slightly toward episodic compared to the first survey ($p < 0.10$). On all other measures, the samples can be said to be from the same population.

Table A1. Comparison of Survey Demographics

	Survey 1	Survey 2	Survey 3
Migraine Frequency*			
Episodic	27.6%	35.0%	32.3%
Chronic ¹	72.4%	65.0%	67.7%
Age			
Less than 20 years old	2.2%	1.9%	1.0%
20-29 years old	13.6%	12.3%	8.0%
30-39 years old	19.3%	20.8%	19.1%
40-49 years old	35.1%	32.5%	37.5%
50-59 years old	23.7%	23.7%	26.0%
60 years old or older	6.1%	8.8%	8.3%
Gender			
Female	94.3%	95.9%	93.4%
Male	4.0%	3.4%	5.6%
Gender variant/non-binary	1.3%	0.3%	1.0%
Prefer not to answer	0.4%	0.3%	0.7%
Total Annual Household Income			
Less than \$25,000	21.2%	20.4%	18.6%
\$25,000 to \$49,999	22.8%	22.0%	21.2%
\$50,000 to \$99,999	34.9%	27.1%	30.1%
\$100,000 to \$149,000	12.2%	18.8%	16.9%
\$150,000 or more	9.0%	11.8%	13.1%

* Survey one vs survey two: $p < 0.10$

¹ Defined as 15 or more headache or migraine days in last month.

Figure A1. Comparison of Survey Demographics

