Impact of illness on workplace productivity:

How it should be measured and considered

April 30, 2024

Panelists

Neda Nasseri
Director, Product
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Dr. Elizabeth Leroux
Neurologist, Founder & President
Migraine Canada

Dr. Christine Lay
Professor of Neurology and Founding
Director of Headache Program
University of Toronto

TELUS® Health

The Insurer's Perspective

Neda Nasseri, PharmD, MSc. MBA
Product Director, Pharmaceutical Benefits

April 30, 2024

Desjardins

Recommended Submission Content

- Requested reimbursement criteria for Desjardins and rationale

- Indication(s)

- Physiopathology and MOA of the drug (if first in class)

- Clinical evidence and differentiators vs standard of care

- Safety profile

- Place in therapy

Recommended Submission Content (2)

- Pharmacoeconomic data

  - Cost-effectiveness studies

  - Impact on short-term & long-term disability/ productivity

  - Budget Impact Analysis (BIA)

- HTA recommendations (i.e. CADTH and INESSS)

- Real-world data

Migraine Impact at Work

- Strong impact on work productivity (absenteeism, presenteeism, limitations)

- Desjardins' disability data shows that since 2020, around 341 patients with some type of migraine have used their short-term disability for an average of 8 weeks

- Most patients with migraines take sick days here and there, it is not captured anywhere

About Productivity Data

Presenteeism and absenteeism data are often based on **self-reported information** and can be subjective

Lack of standardized measurement tools can **affect the reliability and validity** of the data

Comorbidities can be a **confounding factor**

Industry **variabilities**

Migraine-friendly Work Environment

Adjust Environment

- Dimmable lights / natural light source

- Water stations

- Healthy snacks

- Ergonomic workstations

- Limit strong odors, loud noises, or inadequate ventilation

Provide Access to Designated Area/Room

- Quiet and dim

- Easily accessible

- Access to paper bags in case of severe nausea

Migraine-friendly Work Environment (2)

Offer a flexible work schedule:

- Flexible work hours
- Remote work options
- The ability to take breaks as needed

Migraine-friendly Work Environment (3)

Offer wellness programs and supportive policies

- Raise awareness about migraines among employees to foster understanding and support for colleagues who experience migraines

- Provide information on common triggers, symptoms, and ways to support individuals during migraine attacks

- Offer flexible sick leave policies and accommodations for medical appointments

- Limit stress at work and implement relaxation classes, if possible

Thank you!

Desjardins

Migraine impact in the workplace:
Can we measure it?

Dr Elizabeth Leroux, MD, FRCPC
Migraine Canada
Montreal Neurologic Center

April 30, 2024

Challenges for employers when dealing with employees living with migraine

- No biomarker, objective proof of disease / severity
- Migraine is perceived as a «benign condition with no known cause» = doubt, skepticism and stigma
- Paroxysmal, unpredictable attacks of varying severity
- Requests from employees may seem excessive
    - Light, sound, smells / work environment
    - Schedule flexibility
    - Tele-work

PLACEHOLDER FOR VIDEO

Why is it SO important to treat migraine?

World Health Organization

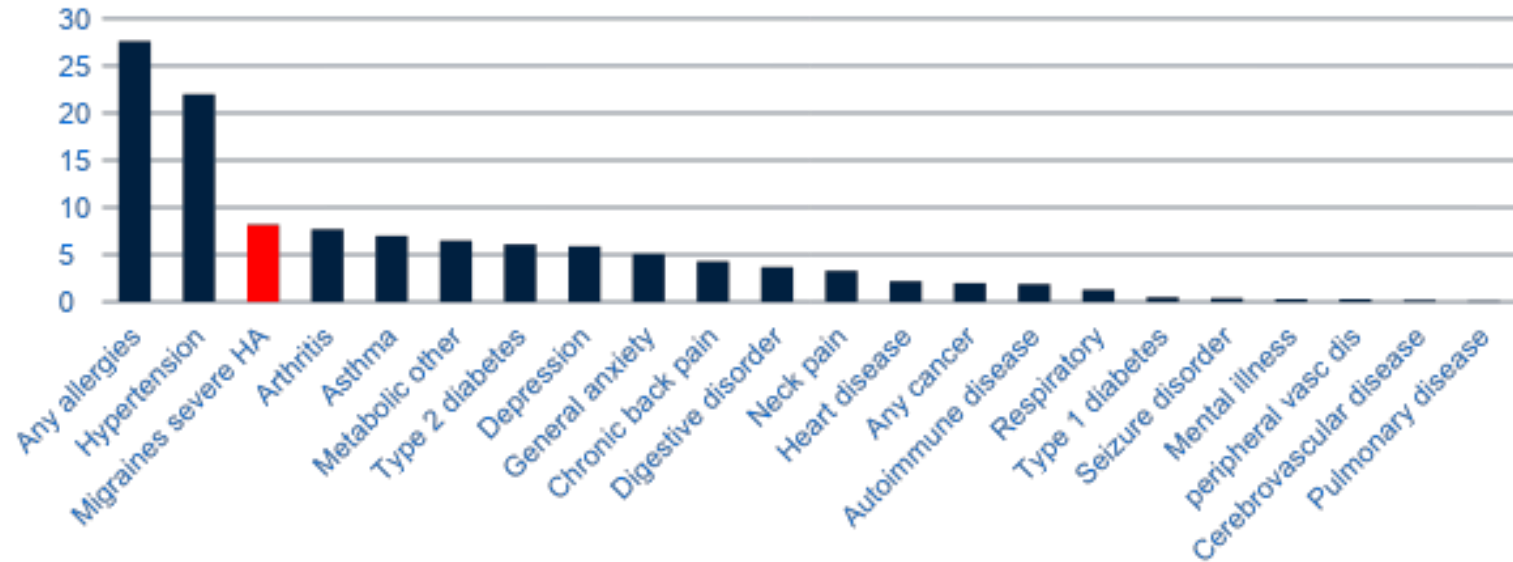|	
1st	Most prevalent neurological disorder
2nd	Leading cause of global disability
3rd	Most prevalent medical illness

Starts at a young age, affects **whole lifespan**.

Affects family, personal life and work.

Lancet 2017;390:1211, Lancet Neurol 2017;16: 877
Amoozegar F. The Burden of Illness of Migraine in Canada: New Insights on Humanistic and Economic Cost. Can J Neurol Sci. 2022;49(2):249-62.
Buse DC, et al. Impact of Migraine on the Family: Perspectives of People With Migraine and Their Spouse/Domestic Partner in the CaMEO Study. Mayo Clin Proc. 2016.
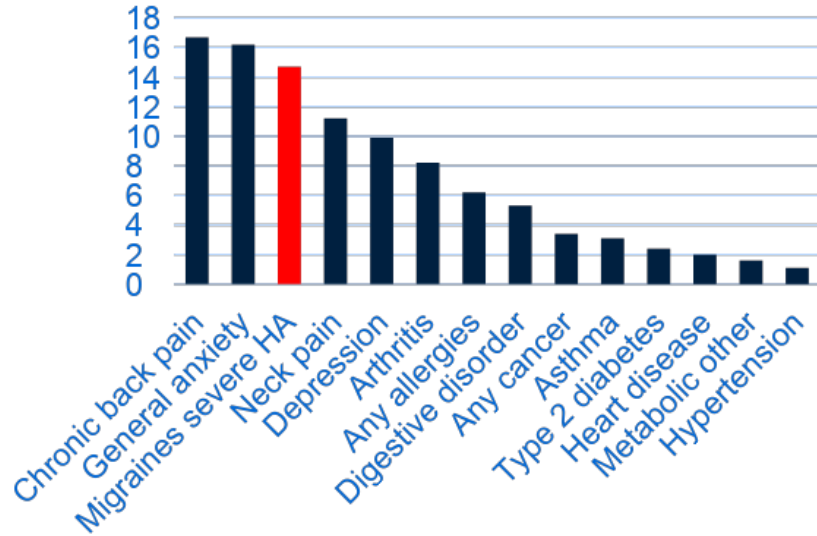
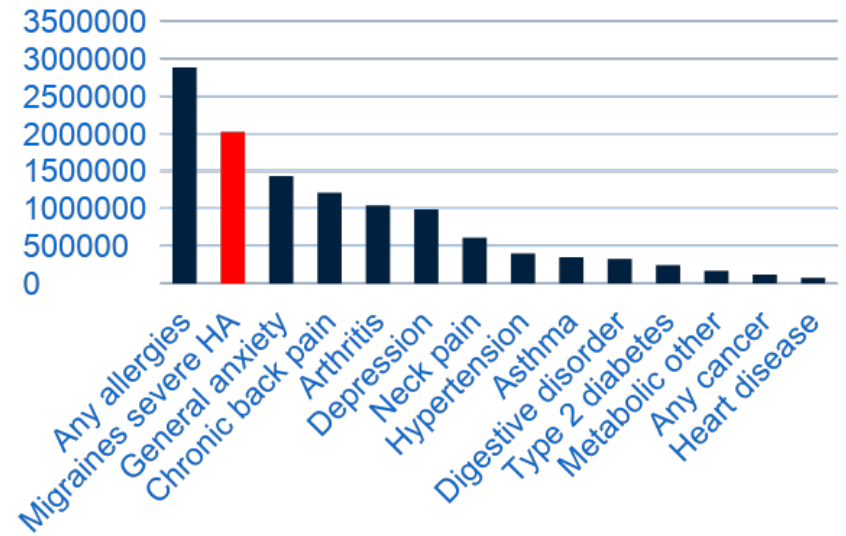# Prevalence of diseases in the workplace (US) presenteeism study over four (4) years

- Use of the Health-Related Productivity Loss Instrument (HPLI)
- A total of 58,299 HRAs (Health Reimbursement Arrangement) from 22,893 employees were completed, and analyzed
- 7,959 employees from 6 locations completed the HRA each year for 4 years

Allen D, et Al. Four-year review of presenteeism data among employees of a large United States health care system: a retrospective prevalence study. Hum Resour Health. 2018;16(1):59.

Presenteeism data in the US

- 25% of US workplace productivity lost to presenteeism
- 16% of presenteeism may be due to migraine

Annual company cost USD

Allen D, et Al. Four-year review of presenteeism data among employees of a large United States health care system: a retrospective prevalence study. Hum Resour Health. 2018;16(1):59.

Direct and indirect costs of EM and CM

Indirect cost category	%	Mean annual cost per patient concerned $ CAD	Mean cost / patient (whole cohort) $ CAD
Missed time from work	61%	10 458	7 673
Reduced productivity	61%	12 462	9 766
Unemployed	15%	16 525	347
Short term disability	13%	7 695	1 019
Long term disability	16%	32 679	1 943

- 287 patients from 5 migraine clinics
- Female 85%, mean 45 yo

- Headache frequency (with treatment)
  - 4-7 days: 24%
  - 8-14 days: 35%
  - 15+ days: 36%

	Low Frequency Episodic (<8/30)	High Frequency Episodic [8-14/30)	Chronic >14/30
Mean annual cost, direct + indirect	$15 651	$24 885	$25 669

Amoozegar F, et al. The Burden of Illness of Migraine in Canada: New Insights on Humanistic and Economic Cost. Can J Neurol Sci. 2022;49(2):249-62.

Productivity Loss and Health-Related Quality of Life Associated with Disability from Migraines

Study objective: *To examine the association between different levels of migraine disability and paid and unpaid productivity loss*

April 10, 2024

A companion slide deck to UBC draft report titled *Productivity Loss and Health-Related Quality of Life Associated with Disability from Migraines* circulated March 22, 2024

Methods: Survey development and data collection

- Developed a survey in collaboration with patient partners
  - 1 living with migraines; 1 living with atopic dermatitis; and 1 living with alopecia areata
- Included questions about
  - Migraine experience
  - Quality of life (Veterans Rand 12 Item Health Survey [VR-12])
  - Socio-demographics and employment characteristics
  - Work productivity
    - Valuation of Lost Productivity (VOLP)
    - Work Productivity and Activity Impairment – General Health (WPAI-GH)
- Administered the survey through *Ipsos* market research panel to participants who identified as
  - 19 years old and older
  - Employed
  - Canadian resident
  - Diagnosed with migraine
  - Able to understand English or French

Analysis

- Exposure variable: migraine disease severity as measured using the Migraine Disability Assessment Test
- Outcome variable: productivity loss and impairment
    - VOLP: hours of work productivity loss in the past 3 months due to health
        - *Paid* work
        - *Unpaid* work
    - WPAI-GH: percent impairment in the last 7 days
        - Overall work impairment due to health
        - Activity impairment due to health
    - Also examined health utility (VR-12) by applying Canadian preference weights
- Analyzed data using summary tables and confounder-adjusted regression models
- Selected OLS regression model as the most appropriate for the data collected, based on recommendations from the literature (Zhang & Sun, 2021)

Bansback N, Trenaman L, Mulhern BJ, et al. Estimation of a Canadian preference-based scoring algorithm for the Veterans RAND 12-Item Health Survey: a population survey using a discrete-choice experiment. CMAJ Open 2022; 10: E589–E598.
Zhang W, Sun H. How to analyze work productivity loss due to health problems in randomized controlled trials? A simulation study. *BMC Med Res Methodol*; 21. Epub ahead of print 1 December 2021. DOI: 10.1186/s12874-021-01330-w.

The MIDAS TEST

Please answer the following questions about ALL of the headaches you have had over the last 3 months. Select your answer in the box next to each question. <mark>Select zero if you did not have the activity in the last 3 months. Please take the completed form to your healthcare professional.</mark>

1. On how many days in the last 3 months did you miss work or school because of your headaches?
2. How many days in the last 3 months was your productivity at work or school reduced by half or more because of your headaches? (Do not include days you counted in question 1 where you missed work or school.)
3. On how many days in the last 3 months did you not do household work (such as housework, home repairs and maintenance, shopping, caring for children and relatives) because of your headaches?
4. How many days in the last 3 months was your productivity in household work reduced by half of more because of your headaches? (Do not include days you counted in question 3 where you did not do household work.)
5. On how many days in the last 3 months did you miss family, social or leisure activities because of your headaches?

Total (Questions 1-5). Maximum score is 270 = 3 x 90 (1-2 and 3-4 are mutually exclusive).

Little or no disability: 0-5   Mild: 6-10

Moderate: 11-20   Severe disability: 21 – 270

21 = 7 days per month affected in any way

The VOLP tool

Developed by a team including Advancing Health's Drs. Wei Zhang, Nick Bansback and Aslam Anis, the VOLP is a composite questionnaire that measures time loss from paid work and unpaid work due to health problems, plus job and workplace characteristics, to calculate the monetary value of productivity loss.

The VOLP was adapted in 2021 to measure productivity loss associated with caregiving responsibilities and paint a picture of what it means to have caregivers out of the workforce from an economic perspective.

There are long and short versions of the VOLP. The long version is a comprehensive questionnaire that includes components of absenteeism, presenteeism, unpaid work, routine work hours, job and work characteristics. The baseline long version includes 26 questions and the follow-up questionnaire includes 13 questions. Depending on employment status, questions can be skipped and thus the actual number of questions a respondent needs to answer is typically much smaller. The VOLP is currently available in **12 languages**.

Results: Sample characteristics

Characteristic	Migraine disability level				
	Little to no (MIDAS 0-5) N (%)	Mild (MIDAS 6-10) N (%)	Moderate (MIDAS 11-20) N (%)	Severe (MIDAS ≥21) N (%)	All N (%)
Total, row %	109 (24.7)	111 (25.2)	111 (25.2)	110 (24.9)	441 (100)
Gender					
Man	65 (59.6)	42 (37.8)	38 (34.2)	31 (28.2)	176 (39.9)
Woman	44 (40.4)	69 (62.2)	73 (65.8)	79 (71.8)	265 (60.1)
Age, mean (SD)	36.6 (12.7)	38.8 (10.1)	38.2 (9.5)	37.3 (11.0)	37.7 (10.9)
Race/ ethnicity					
Other race/ ethnicity*	23 (23.1)	20 (18.0)	26 (23.4)	39 (35.5)	108 (24.5)
White	86 (78.9)	91 (82.0)	85 (76.6)	71 64.5)	333 (75.5)
Number of comorbidities‡					
0	57 (52.3)	36 (32.4)	33 (29.7)	31 (28.2)	157 (35.6)
1	35 (32.1)	47 (42.3)	45 (40.5)	29 (26.4)	156 (35.4)
≥2	17 (15.6)	28 (25.2)	33 (29.7)	50 (45.5)	128 (29.0)
Days in the last 3 mo. having a headache, mean (SD)	2.9 (6.3)	4.7 (4.5)	8.0 (7.4)	19.0 (19.3)	8.7 (12.7)
Pain of headache (0 to 10), mean (SD)	4.0 (2.9)	5.5 (2.2)	6.3 (1.8)	7.1 (1.3)	5.7 (2.4)

Malaysian, Laotian, etc.), West Asian, Filipino, Latin American, Métis, Korean, Japanese, Arab, Inuit, Black, Indigenous/ Aboriginal (not included elsewhere), Other, and mixed (i.e., more than one) ethnicities.

‡Comorbidities include asthma, arthritis or osteoporosis, back problems, cancer, cardiovascular disease, chronic obstructive pulmonary disease (COPD), diabetes, mental health conditions, neurologic conditions, digestive diseases, fibromyalgia or chronic fatigue syndrome, kidney disease, liver disease or gallbladder problems, other. Abbreviation: SD- standard deviation.

Overall productivity loss as measured using the Valuation of Lost Productivity (VOLP) questionnaire
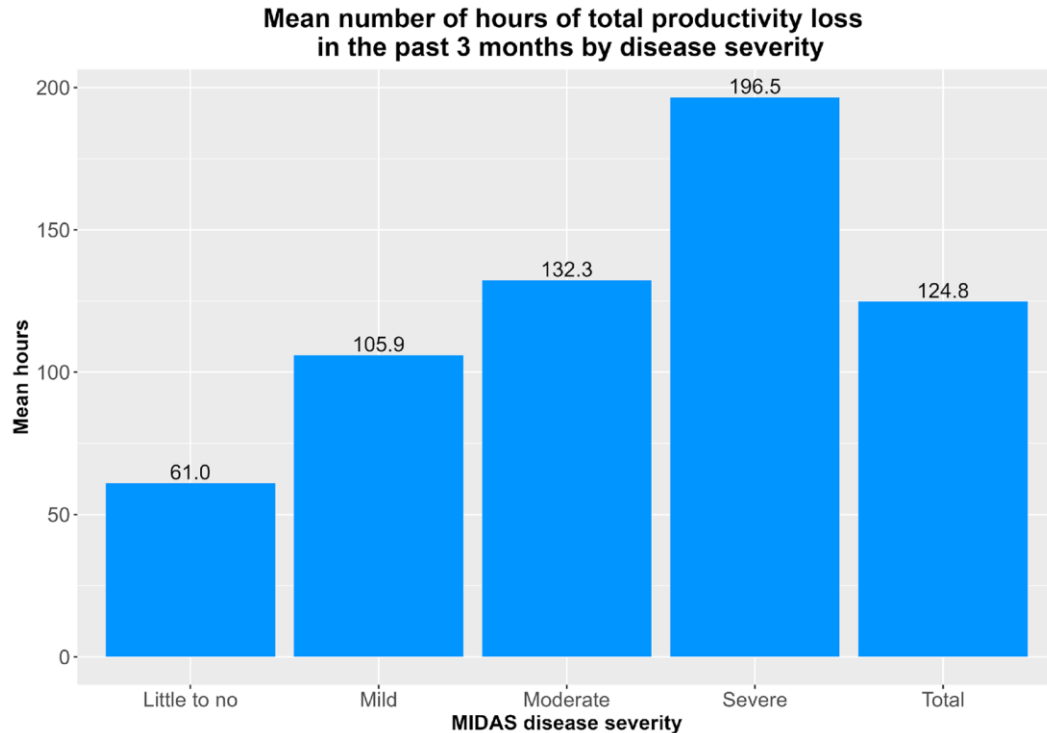
Mean number of hours of total productivity loss in the past 3 months by disease severity
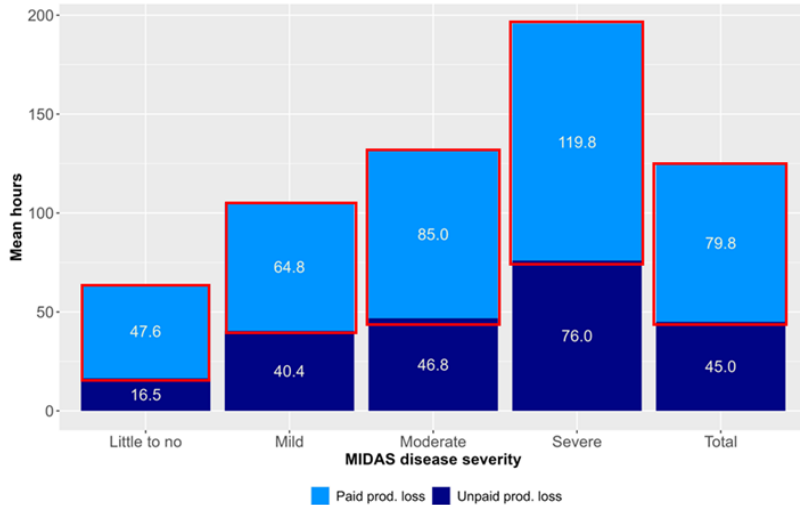
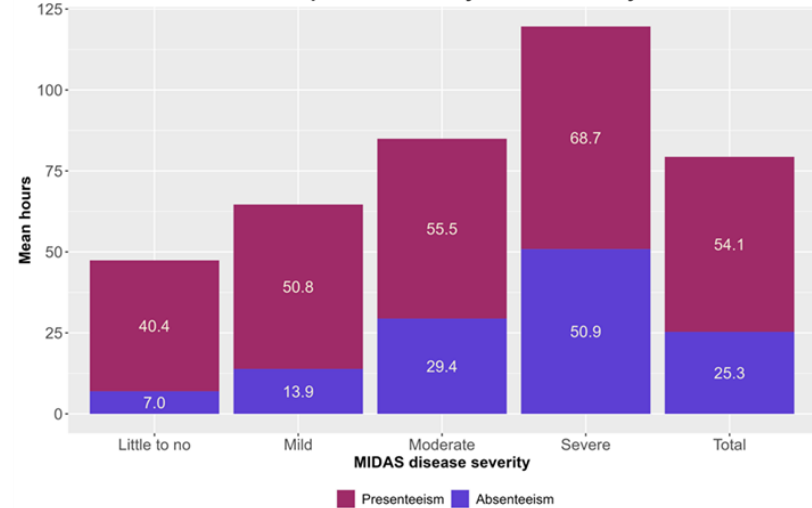*Estimates are unadjusted for other confounders

Overall VOLP, broken down into <u>paid</u> productivity loss and <u>unpaid</u> productivity loss

Mean number of hours of paid and unpaid productivity loss in the past 3 months by disease severity
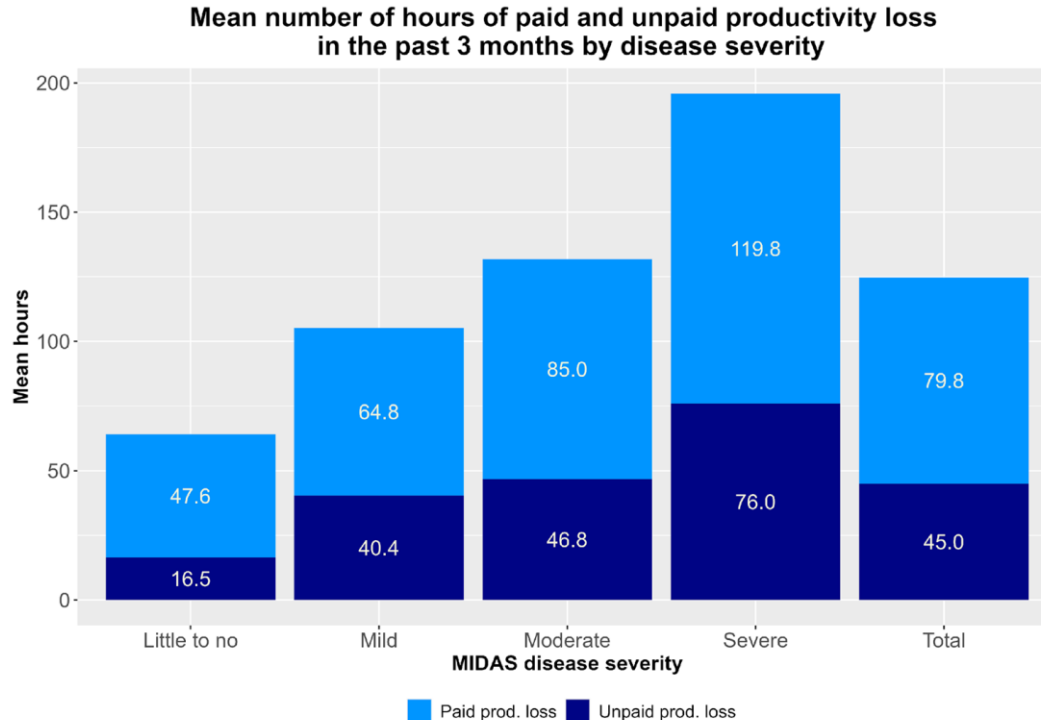
*Estimates are unadjusted for other confounders

Overall VOLP, broken down into <u>paid</u> productivity loss and <u>unpaid</u> productivity loss

Mean number of hours of paid and unpaid productivity loss in the past 3 months by disease severity

Mean number of hours of paid productivity loss in the past 3 months by disease severity

*Estimates are unadjusted for other confounders

27

Impairment as measured by the Work Productivity and Activity Impairment (WPAI) Questionnaire

Mean percent overall work impairment due to health in the past 7 days by disease severity
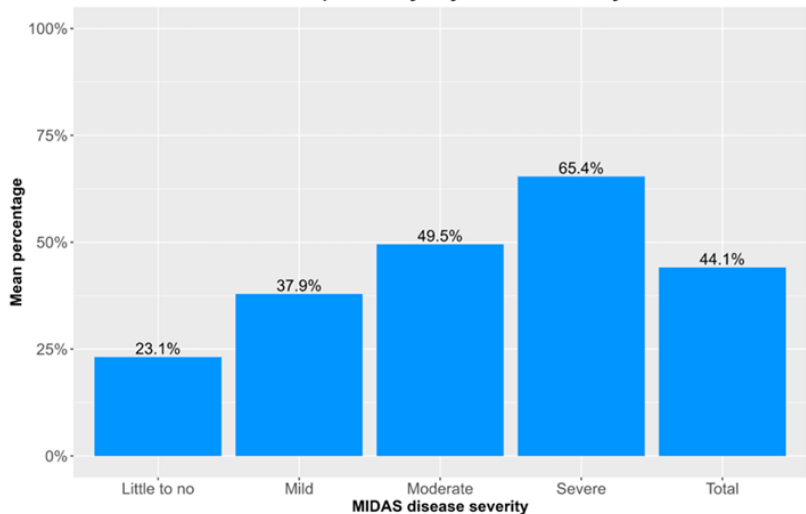
Mean percent activity impairment due to health in the past 7 days by disease severity

*Estimates are unadjusted for other confounders

28
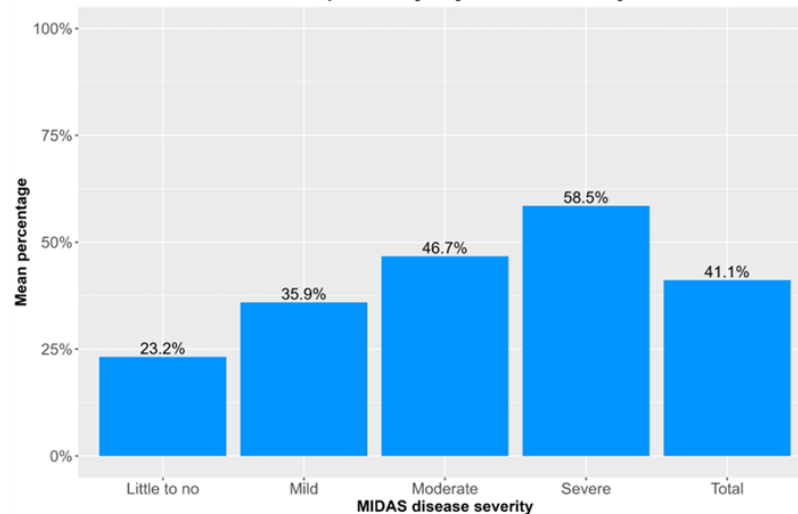
Interpretation

- Patients with severe MIDAS scores have over 2 weeks of additional overall productivity loss due to their health compared to patients with little to no migraines.
- We used the *paid* productivity loss regression model to estimate average hours of loss for all disease severity groups (shown in 1st column)
  - If we assume that the average hourly wage is the same for our sample as the average in Canada, $33.55 in 2023, then the monetary equivalent of *paid* productivity loss is as in the 2nd column.
  - If we calculate the work hours in a 3 month period using the average hours in a work week reported in our sample, then the proportion of time lost is as in the 3rd column.

MIDAS severity	Average of predicted hours of paid productivity loss in 3mo period.	Monetary equivalent of loss per worker	Proportion of work time lost
Little to no	51.66	$1,733.23	11.78%
Mild	68.47	$2,297.28	15.61%
Moderate	84.10	$2,821.70	19.17%
Severe	113.25	$3,799.69	25.82%

Interpretation

- Unadjusted estimates for hour loss in studies of other conditions are presented below, along with the unadjusted estimates from the overall sample of the present study
  - Interpret with caution as characteristics like disease severity of the sample, study design, and sampling are different across the studies.

Hour Loss in 3 months	Early Rheumatoid Arthritis (2015)[1]	Cardiovascular Risk (2020)[2]	Early Multiple Sclerosis (2022)[3]	Migraine (draft report 2024)
Absenteeism	76.75 (115.71)	10.94 (22.28)	18.96 (52.37)	25.3 (41.9)
Presenteeism	34.97 (58.07)	27.49 (103.90)	22.72 (51.91)	54.1 (93.0)
Unpaid work loss	81.51 (144.43)	20.60 (62.92)	17.97 (61.68)	45.0 (112.4)

Legend:
- ■ Lowest
- ■ 2d
- ■ 3d
- ■ Highest
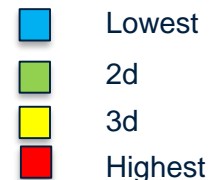
1. **Zhang W**, Bansback N, Sun H, Pedersen R, Kotak S, Anis A. Estimating the monetary value of the annual productivity gained in patients with early Rheumatoid Arthritis receiving etanercept plus methotrexate: Interim results from the PRIZE study. RMD Open. 2015;1:e000042.
2. **Zhang W**, Li KH, Gobis B, Zed P, Lynd LD. Work productivity losses and associated risk factors among university employees in the CAMMPUS wellness program. Journal of Occupational and Environmental Medicine. 2020;62(1):25-29.
3. Rodriguez EL, **Zhang W**, Khakban A, Patten S, Traboulsee A, Oh J, Kolind S, Prat A, Tam R, Lynd LD. Productivity loss among people with early multiple sclerosis: A Canadian study. Multiple Sclerosis Journal. 2022;28(9):1414-1423.

Integrated Benefit Institute data
Migraine is similar to other chronic diseases for STD and LTD

	Migraine	Depression	Diabetes	Back pain	Rheumatoid Arthritis
Tx for condition	3%	8%	6.3%	11%	1.4%
Excess sick days Wages	2.2 600 USD	2.4 640 USD	1.5 400 USD	4.3 700 USD	2 500 USD
STD claims/ 10 000	2.4	2.2	2.4	4.3	1
STD work days	38	49	43	50	62
LTD claims/ 10 000	1	1.1	1.6	2.7	1.8
LTD work days	179	153	186	169	198
LTD remain open 2Y	37%	15%	45%	30%	55%
LTD cost	37 000	32 000	39 000	35 000	41 200

https://www.ibiweb.org/resource/

Comments and take home messages

- Migraine is a neurological disease with am impact over the lifespan
- Patients with migraine often hide their disease due to the stigma
- Patients will often cut on personal activities to protect work time

- The participants to the UBC study had LOW migraine frequencies even in the severe group. Still, the impact is significant.
- Patients seen in headache clinics often have 10+ migraine days per month, even with optimal treatment.

- Increasing migraine awareness and offering reasonable accommodations is key to improve productivity
- Encouraging medical care is important….but remember access is still limited

What can be done in the workplace

Educate	Educate Human Resources and workforce
Provide	Provide a program on migraine for employees at large
Identify	Identify people struggling with migraine and suggest resources
Encourage	Encourage medical management and interdisciplinary programs
Support	Support employees, fight stigmas
Design	Design a migraine friendly workplace with reasonable accommodations

Dodick DW, Ashina M, Sakai F, Grisold W, Miyake H, Henscheid-Lorenz D, et al. Vancouver Declaration II on Global Headache Patient Advocacy 2019. Cephalalgia. 2020;40(10):1017-25.

Reasonable accommodations

No scents policy	Lighting adaptation	Screen adaptation
Noise protection	Workstation adaptation	Variation of tasks
Mini-breaks	Access to a room for rest	Adequate access to water
No irregular shifts	Flexible schedules	Tele-work

CANADIAN HEADACHE SOCIETY

Migraine Canada

MIGRAINE FRIENDLY WORKPLACE
Led by EMHA

MIGRAINE AT WORK

Understanding Real-World Productivity Loss of Patients with Migraine in Ontario, Canada

TELUS Health Annual Conference 2024

Dr Christine Lay

Professor of Neurology
Founding Director of Headache Program
University of Toronto

April 30, 2024

Disclosure

The statements, findings, conclusions, views, and opinions contained and expressed in this presentation are based only in part on data and/or results obtained by AbbVie Corporation (AbbVie) under license from IQVIA Solutions Canada Inc. (IQVIA), in connection with IQVIA's delivery to AbbVie of a real-world evidence study entitled, *Understanding the real-world productivity loss of treatment-experienced people living with migraine in Ontario, Canada*. All Rights Reserved. The statements, findings, conclusions, views, and opinions contained and expressed herein may therefore not necessarily be those of IQVIA or any of its affiliated or subsidiary entities.

Acknowledgements

Background

- Migraine is a debilitating brain disease recognized as the **2nd leading cause of disability** globally.[1]

- As per the international classification of headache disorders, migraine can be classified into various subtypes. **Episodic migraine is (EM) defined as headaches occurring <15 days per month; CM is defined as headaches occurring ≥15 days per month with at least 8 migraine days**. [2,3]

- Migraine negatively impacts the daily life of patients, including their **productivity and quality of life (QoL)**, and is associated with a substantial economic burden.[4,5]

- This study aimed to **understand the real-world productivity loss of preventive treatment-experienced people living with migraine** in Ontario, Canada

1. GBD 2016 Disease and Injury Incidence and Prevalence Collaborators. The Lancet. 2017;390:1211-1259. 2. Goadsby PJ, Evers S. International Classification of Headache Disorders - ICHD-4 alpha. Cephalalgia. 2020;40(9):887-888. 3. IHS. The International Classification of Headache Disorders, 3rd edition. Cephalalgia. 2018;38(1):1-211. 4. Can J Neurol Sci. 2019;46(2):216-23; 5. Neurol Clin. 2009;27(2):321-34.

Survey to patients in Ontario Primary Care EMR database

Recruitment:

- Patients were recruited from a sample of individuals accessing care at a PCP network

- Adult patients who provided consent, and

  - had ≥4 average migraine days per month over the past 3 months and

  - stopped using >2 preventive medications in the past 5 years

Methodology

Online multiple-choice electronic survey

3-Year Selection Period	**Survey Fielding**
November 1, 2019 – October 31, 2022	**March 10, 2023 – May 15, 2023**

All patients with migraine diagnosis or migraine specific medications were invited to participate

Online survey utilizing validated measures of disability and productivity loss

Time to complete:

15-25 minutes

Outcomes reported for patients with EM and CM

Demographics

- Online self-reported patient survey, includes:
  - Age group
  - Gender
  - Employment status
  - Occupation
  - Prior preventive medication experience
  - Migraine history

Headache-Related Disability

- Headache Impact Test-6 (HIT-6)[1]
  - Total score
  - Number and percentage of patients within associated impact **severity categories**
- Migraine Disability Assessment Scale (MIDAS)[2]
  - Total score
  - Number and percentage of patients within associated **disability categories**

Productivity Loss

- Collected through the online self-reported patient survey, and includes absenteeism and presenteeism as measured by the Work Productivity and Activity Impairment Questionnaire (WPAI)[3]

- Indirect costs were quantified using the human capital approach

[1]Kosinski M, Bayliss MS, Bjorner JB, et al. A six-item short-form survey for measuring headache impact: the HIT-6. Qual Life Res. 2003;12(8):963-974, [2]Stewart WF, Lipton RB, Dowson AJ, Sawyer J. Development and testing of the Migraine Disability Assessment (MIDAS) Questionnaire to assess headache-related disability. Neurology. 2001;56(6 Suppl 1):S20-28. [3]Reilly MC, Zbrozek AS, Dukes EM. The validity and reproducibility of a work productivity and activity impairment instrument. Pharmacoeconomics. 1993;4(5):353-365.

Patient Demographics and Clinical Characteristics

Category	Key Results* (N=124)
Migraine Type	62.9% (n=78) episodic migraine (EM; 4-15 MMD) 37.1% (n= 46) chronic migraine (CM; ≥15 MMD)
Age	83.8% were 18-44 years of age
Gender	73.4% women
Employment Status	69% employed (full-time, part-time, or self-employed)
Preventive Medication Use in past 5 years	Nearly half (54.8%) of patients stopped at least 3 preventive migraine medications.
Average time from first onset of migraine symptoms to diagnosis	3 years

* Self-reported

Data Source: IQVIA Canadian Primary Care EMR Database; electronic survey responses.

Patients with CM have ~3x as many migraine days per month than EM

Average Migraine Days per Month*

7.6
(SD: 2.8)

22.1
(SD: 6.5)

13.0
(SD: 8.3)

EM (n = 78)

CM (n = 46)

All (n = 124)

Median: 7.0
[IQR: 5.0 – 10.0]

Median: 20.0
[IQR: 15.0 – 30.0]

Median: 10.0
[IQR: 6.0 – 17.5]

CM=chronic migraine; EM=episodic migraine; IQR: interquartile range; SD: standard deviation;
Question: On approximately how many days per month did you have a migraine over the last 3 months?; Data Source: IQVIA Canadian Primary Care EMR Database; electronic survey responses

92% of all patients have HIT-6 score in the "severe impact" category

EM (n = 78)　　　　　　**CM (n = 46)**　　　　　　**All (n = 124)**

HIT-6 Impact Category:

- ■ Little or no impact (≤49)
- ■ Some impact (50-55)
- ■ Substantial impact (56-59)
- ■ Severe impact (60-78)
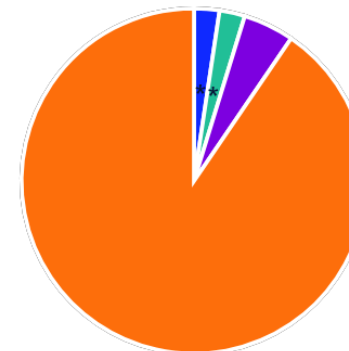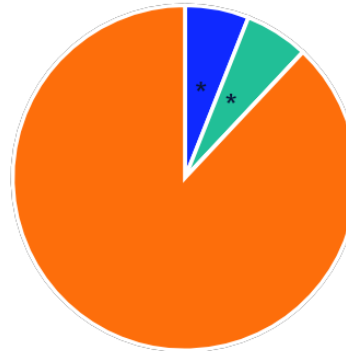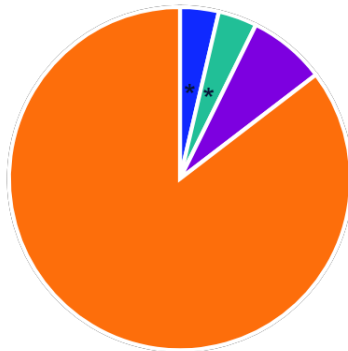
Mean = 66.5　　　　　　Mean = 66.8　　　　　　Mean = 66.6

CM=chronic migraine; EM=episodic migraine; HIT = headache impact test;
Note: Categories are based on total HIT-6 Score, which is evaluated using a recall period of 4 weeks. *All values with a count of less than 6 are masked as "3" according to privacy rules including secondary values and percentages; Data Source: IQVIA Canadian Primary Care EMR Database; electronic survey responses.

77% of all patients have a MIDAS score of Grade IV/severe disability

MIDAS Grade:

- ■ **Grade I** (little or no disability; score 0-5)
- ■ **Grade II** (mild disability; score 6-10)
- ■ **Grade III** (moderate disability; score 11-20)
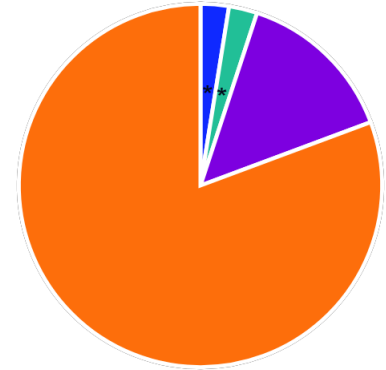- ■ **Grade IV** (severe disability; score ≥ 21)
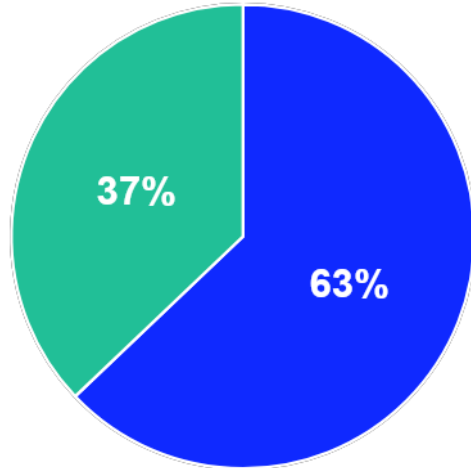
EM (n = 78)
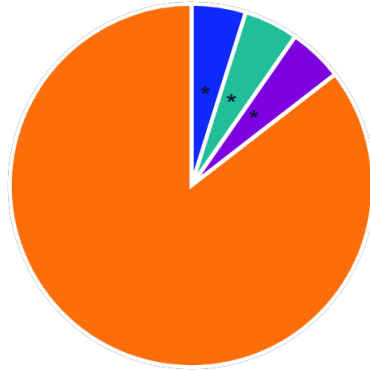
CM (n = 46)

All (n = 124)

Mean = 44.8
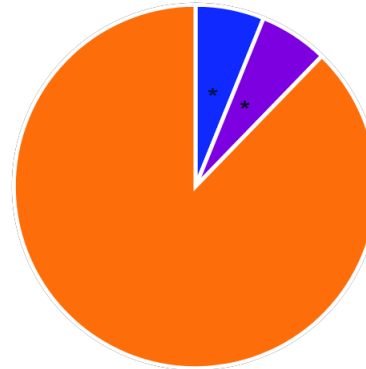
Mean = 75.6

Mean = 56.2

CM=chronic migraine; EM=episodic migraine; MIDAS = migraine disability assessment; Note: Categories are based on total MIDAS score, which is evaluated using a recall period of 3 months. *All values with a count of less than 6 are masked as "3" according to privacy rules including secondary values and percentages. Data Source: IQVIA Canadian Primary Care EMR Database; electronic survey responses.

83 patients were included in the presenteeism and absenteeism analyses; proportion of EM to CM was similar to the total population
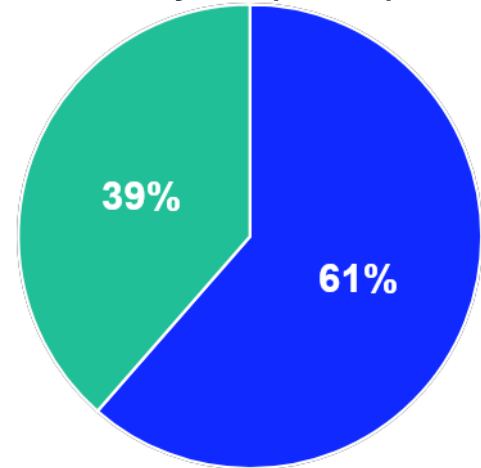
Overall analysis population (n = 124)

Population included in the absenteeism and presenteeism analyses (n = 83)

37%

63%

EM (n = 78)
CM (n = 46)
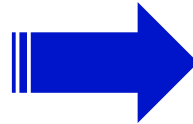
Patients were included if they confirmed paid employment in the general survey questions and the WPAI questionnaire*

39%

61%

EM (n = 51)
CM (n = 32)

*Two patients were excluded due to having no hours missed due to migraine and hours worked in the past 7 days.
CM=chronic migraine; EM=episodic migraine; WPAI; work productivity and activity impairment; Data Source: IQVIA Canadian Primary Care EMR Database; electronic survey responses.
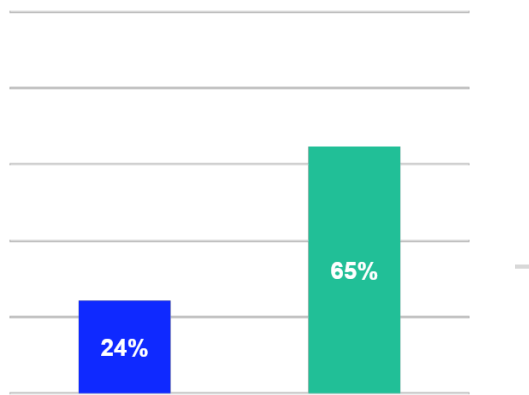
Majority of patients are impacted by absenteeism & presenteeism[‡]
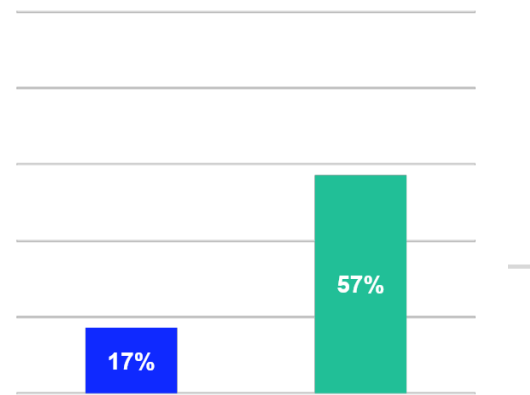
EM (n = 51*)

13%	53%
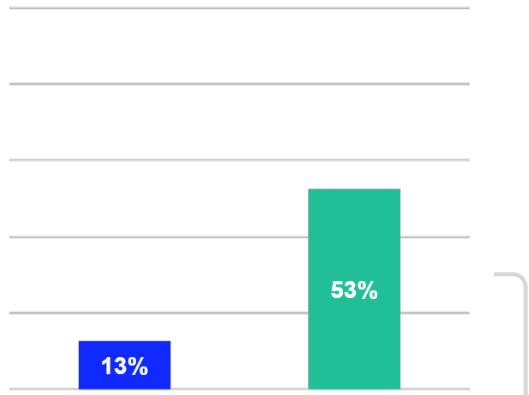
Patients with EM had an average of
13% absenteeism,
53% presenteeism

CM (n = 32*)

24%	65%

Patients with CM had an average of
24% absenteeism,
65% presenteeism

All (n = 83*)

17%	57%

**All patients** had an average of
17% absenteeism,
57% presenteeism

‡ Results are not mutually exclusive. (i.e. Patients with presenteeism may also have absenteeism). *Results reported are among patients who confirmed employment in the general survey questions and the WPAI questionnaire.
Note: Absenteeism and presenteeism is quantified as per the Work Productivity and Activity Impairment Questionnaire: Specific Health Problem V2.0 over the past 7 days prior to survey completion.
CM=chronic migraine; EM=episodic migraine; WPAI; work productivity and activity impairment.; Data Source: IQVIA Canadian Primary Care EMR Database; electronic survey responses.

Average yearly costs of productivity loss were highest among patients with CM
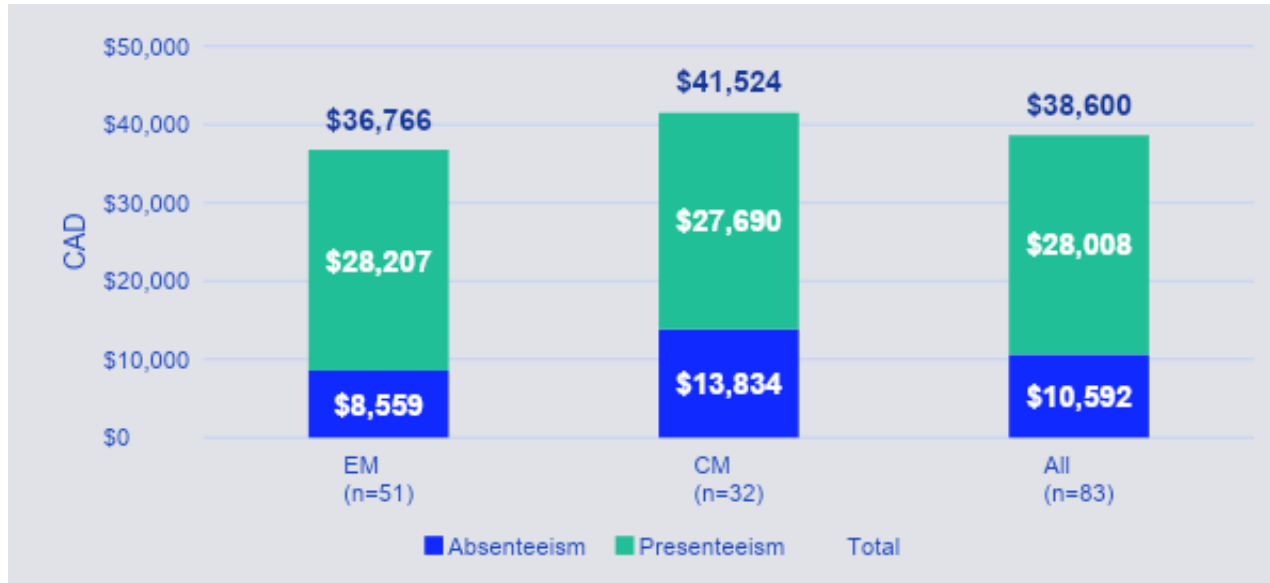
EM: episodic migraine; CM: chronic migraine

Data Source: IQVIA Canadian Primary Care EMR Database; electronic survey responses.

Disability and productivity loss were high in treatment-experienced, employed adult patients with migraine

Headache-Related Disability

Over 90% of all patients had a HIT-6 score corresponding with the **"severe impact"** category

Over three quarters of all patients had a MIDAS score corresponding to **severe disability**

Productivity Loss

Total average yearly indirect costs were considerably high at ~ 40K for all migraine patients

Key Findings

Results demonstrate the **substantial impact of migraine on disability, work productivity and the associated costs**, with high rates of absenteeism and presenteeism

These findings emphasize the critical need for **establishing and expanding access to appropriate migraine treatments**