Appendix 1: Survey Instrument

Preamble to Physician Survey, 2020:

On behalf of the OMA Burnout Task Force: Burnout is a major issue impacting physicians in Ontario. The consequences of burnout are significant to patients and the health care system, but more importantly, to the health and well being of our members. The OMA has identified physician burnout[1] as a top priority and tasked the Burnout Task Force with, amongst other things, making recommendations to the system to help prevent physician burnout, aiming to better understand the system issues which contribute to the problem, and helping to inform the development of a system that champions physician wellness. We must recognize that the contributors and impact of burnout are at the individual, organizational and system levels, and therefore the Task Force will take a systems-level approach to addressing burnout, as opposed to focusing solely on it being a matter of personal resilience. To ensure the success of this important work, we need to hear from you. We are looking to our colleagues to identify the factors contributing to burnout, to put forward possible solutions and to advise the Task Force on how it can best advocate around this issue. The results of this survey will inform the priorities of the Task Force and the system-level recommendations. We know that burnout affects all our members in some way, directly or indirectly. With your involvement, we can make a difference to the health and wellbeing of the profession. The survey will take approximately five to seven (5-7) minutes to complete. As the open format is used, you will need to fully complete the survey in one sitting. Your participation is voluntary, however we greatly appreciate your input and insight. Your responses will be kept confidential and only aggregate results will be reported. Please complete by March 22nd, 2020.

Preamble to Physician Survey, 2021:

One year ago, just as COVID-19 was being declared a pandemic, we asked you to complete the first burnout survey to help inform system-level recommendations on burnout. Burnout[1] has been a major issue impacting physicians, residents, and medical students in Ontario, and for many it has only been exacerbated by the pandemic. Therefore, we are relaunching this survey to understand how your experiences with burnout have changed in the past year living and working in the context of the pandemic. This survey seeks to identify the actual contributors and potential solutions to burnout. The results will be compared to findings from the burnout survey completed in March 2020 to assess the impact of the pandemic on burnout over the past year. The consequences of burnout are significant to patients and the health care system, but more importantly, to the health and well-being of our members. We know that burnout is largely a system-level issue rather than one of personal resilience, and therefore in 2019, the OMA tasked a Burnout Task Force with, amongst other things, making recommendations to the system to help prevent physician burnout. To ensure the success of this important work, we need to hear from you again. The survey will take approximately five to seven (5-7) minutes to complete. As the open format is used, you will need to fully complete the survey in one sitting. Please complete this survey only once. Your participation is voluntary, however we greatly appreciate your input and insight. Your responses will be kept confidential and only aggregate results will be reported. Please complete this survey by March 26, 2021.

[1]CMAJ Physician Burnout Definition (January 15, 2018): https://www.cmaj.ca/content/190/2/E53
Burnout is a work-related syndrome that occurs in occupations where others' needs come first, and where there are high demands, few resources and a disconnect between workers' expectations and experiences. Burnout is characterized by emotional exhaustion, depersonalization or feelings of detachment and cynicism toward people and work, and a reduced sense of accomplishment. In contrast, the absence of burnout may be an indicator of physician wellness, which translates into engagement and satisfaction with work, and a sense of thriving in physical, emotional and social health.

Burnout Level

1) Overall, based on your definition of burnout, how would you rate your level of burnout?

1 = I enjoy my work. I have no symptoms of burnout
2 = Occasionally I am under stress, and I don't always have as much energy as I once did, but I don't feel burned out
3 = I am definitely burning out and have one or more symptoms of burnout, such as physical and emotional exhaustion
4 = The symptoms of burnout that I'm experiencing won't go away. I think about frustration at work a lot
5 = I feel completely burned out and often wonder if I can go on. I am at the point where I may need some changes or may need to seek some sort of help.

Factors/Contributors

2) Physician burnout is a complex issue and often caused by multiple factors. We have categorized some of those most commonly suggested and cited factors into broad categories as below. Based on your experience and understanding, please rank the below burnout contributors/factors from those you believe most contribute to physician burnout (1) to those you believe least contribute to physician burnout (10). Please note the examples provided within each category are not exhaustive.

- Technology (including EMRs/EHR and digital health tools, etc.)
- Culture of medicine (including lack of leadership; stigma/discrimination regarding physician health, seeking help, failure; and lack of civility (i.e. physician-to-physician conflict and inter-professional conflict), etc.)
- Reporting and administrative obligations (including documentation, charting, forms, etc.)
- Regulatory requirements (including CPSO policies and processes, licensing requirements, etc.)
- Health System Sustainability (including increased clinical complexities, high patient loads, managing 'more with less', dealing with aging population, compassion fatigue, 'moral injury' – feeling in a double-bind of wanting to put patient needs first, yet being

unable to provide patients the care they need due to other constraints and demands beyond your control, etc.)

- Patient expectations/patient accountability (includes managing patient expectations, patients wishing for flexible modern solutions, threat of patient complaints or litigation, etc.)
- Practice and training environment for students/residents (including work environment/conditions, medical school education and training, residency training programs, psychological safety, civility, etc.)
- Practice environment for practising physicians (including work environment/conditions, programs/services/policies regarding physician health available in the workplace, psychological safety, lack of organizational support, civility, small business management requirements (office space, staff hiring/training, supplies), etc.)
- Compensation and financial pressures (including current income, medical school/residency debt, etc.)
- Lack of supports to promote wellbeing (including management of long work hours with family/leisure time; inadequate sleep, exercise and nutrition; time for self-care and attending to personal medical needs; lack of benefits and paid sick/vacation time, etc.)

Solutions

3) There are many solutions or suggestions as to how to address physician burnout and promote wellness, with no clear consensus on the 'best' or easy solution. We have selected some commonly suggested solutions and approaches below as a sample of the ideas available. Please rank the below burnout solutions from those you would like to see implemented the most (1) to least (10). Please note the examples provided within each category are not exhaustive.

- Organizational policy changes that enable increased work-life balance should be implemented (including on-call policies; protected time to pursue personally meaningful aspects of work; benefits and paid vacation/sick days, locum support, etc.)
- Medical school training should be reformed (including promoting wellbeing, offering wellness and mental health supports, more hands-on training earlier to help transition with expectations of being a practising physician, etc.)
- Institutional supports should be developed to promote physician wellness (including promoting compassionate leadership, instituting executive wellness officers, promoting civility in the workplace, etc.)
- More dialogue and discussion within the workplace on burnout and physician wellness should be promoted (including promoting the Quadruple Aim, normalizing help-seeking behaviour and promoting psychological safety, etc.)
- Ensure the profession is positioned to implement new regulatory processes, policies (including disseminating physician-friendly information on new processes and policies that is easily consumable, consulting physicians on new processes and policies before

implementation, evaluating new processes and policies after implementation to ensure they are working in practice, etc.)

- EMRs/EHR and other digital health tools should be seamlessly integrated into physician workflow to reduce 'click-fatigue' (including interoperability between different systems, change management supports for physicians, physician representation / involvement in digital health advancements and design, etc.)
- Required documentation/administrative work should be streamlined and reduced, especially that which is unnecessary and unpaid (including a regular review of required documentation and forms with the goal of streamlining/minimizing where possible, research on the effect of administrative tasks on our health care system in terms of quality, time, and cost, etc.).
- Physicians should be remunerated with appropriate and fair compensation for work (including benchmarking compensation methods against similar successful organizations to ensure they are fair and competitive, reasonable compensation for time spent on administrative duties such as forms and paperwork, compensation for leadership roles, etc.)
- A public awareness campaign should be launched around the role of physicians to help manage patient expectations (including highlighting the role the patient plays in managing their own care and creating a set of principles and expectations for the physician/patient relationship, etc.).
- Resources should be developed and promoted for members on burnout prevention strategies (including training programs such as stress management training and communication skills training, developing a toolkit for members with resources, etc.)

Other Contributors/Solutions

4) Are there any other contributors or solutions to physician burnout you believe are not captured in the previous questions?

Profession

Which best describes you?

- ☐ Physician/Resident/Medical Student
- ☐ Other Health Care Provider, please identify
- ☐ Other, please identify

Demographics

1) Primary Practice Setting

- ☐ Community-based solo practice
- ☐ Community-based group practice
- ☐ Community-based inter-professional practice
- ☐ Academic Hospital
- ☐ Community Hospital
- ☐ Other: please specify

2) Primary Practice Location

- ☐ Greater Toronto Area
- ☐ Central Ontario
- ☐ Eastern Ontario
- ☐ Western Ontario
- ☐ Northern Ontario
- ☐ Outside Ontario

3) Age

- ☐ Under 25 years old
- ☐ 25-34 years old
- ☐ 35-44 years old
- ☐ 45-54 years old
- ☐ 55-64 years old
- ☐ 65-74 years old
- ☐ 75 years or older

4) Career Stage

- ☐ Medical Student
- ☐ Resident/Fellow
- ☐ Starting Career physician
- ☐ Established physician
- ☐ Late career physician
- ☐ Retired physician

5) Gender

- ☐ Male
- ☐ Female
- ☐ Non-Binary
- ☐ Prefer to self-describe
- ☐ Other
- ☐ I prefer not to specify

6) What is your primary OHIP Specialty?

- ☐ 00 – Family Practice & Practice in General
- ☐ 01 – Anaesthesia
- ☐ 02 – Dermatology
- ☐ 03 – General Surgery
- ☐ 04 – Neurosurgery
- ☐ 05 – Community Medicine
- ☐ 06 – Orthopaedic Surgery
- ☐ 07 – Geriatric Medicine
- ☐ 08 – Plastic Surgery
- ☐ 09 – Cardiac Surgery
- ☐ 12 – Emergency Medicine
- ☐ 13 – Internal and Occupational Medicine
- ☐ 15 – Endocrinology & Metabolism
- ☐ 16 – Nephrology
- ☐ 17 – Vascular Surgery
- ☐ 18 – Neurology
- ☐ 19 – Psychiatry
- ☐ 20 – Obstetrics and Gynaecology
- ☐ 22 – Genetics
- ☐ 23 – Ophthalmology
- ☐ 24 – Otolaryngology
- ☐ 26 – Paediatrics
- ☐ 28 – Laboratory Medicine
- ☐ 30 – Clinical Biochemistry
- ☐ 31 – Physical Medicine & Rehabilitation
- ☐ 33 – Diagnostic Radiology
- ☐ 34 – Radiation Oncology
- ☐ 35 – Urology
- ☐ 41 – Gastroenterology
- ☐ 44 – Medical Oncology
- ☐ 46 – Infectious Disease
- ☐ 47 – Respiratory Disease

- ☐ 48 – Rheumatology
- ☐ 60 – Cardiology
- ☐ 61 – Hematology
- ☐ 62 – Clinical Immunology
- ☐ 63 – Nuclear Medicine
- ☐ 64 – General Thoracic Surgery
- ☐ Other – Medical Student

7) Number of years in practice

- ☐ In training
- ☐ Five years or less
- ☐ Six to 10 years
- ☐ 11 to 19 years
- ☐ 20 to 29 years
- ☐ 30 years or more

8) Location Type

- ☐ Urban
- ☐ Suburban
- ☐ Semi-Rural
- ☐ Rural
- ☐ Remote area

Appendix 2: Single-item, non-proprietary, validated self-defined burnout measure

Overall, based on your definition of burnout, how would you rate your level of burnout?	
1	I enjoy my work. I have no symptoms of burnout.
2	Occasionally I am under stress, and I don't always have as much energy as I once did, but I don't feel burned out.
3	I am definitely burning out and have one or more symptoms of burnout, such as physical and emotional exhaustion.
4	The symptoms of burnout that I'm experiencing won't go away. I think about frustration at work a lot.
5	I feel completely burned out and often wonder if I can go on. I am at the point where I may need some changes or may need to seek some sort of help.

Physician burnout survey instrument from: Dolan ED, Mohr D, Lempa M, Joos S, Fihn SD, Nelson KM, et al. Using a single item to measure burnout in primary care staff: a psychometric evaluation. *J Gen Intern Med*. 2015;30(5):582–7.

Appendix 3: Unadjusted weighted odds of high degree of burnout, by physician characteristics, 2020 and 2021

Variable	Category	Reference group	2020				2021			
			Odds Ratio	95% CI		Sig	Odds Ratio	95% CI		Sig
				LB	UB			LB	UB	
Gender	Female	Male	0.997	0.758	1.312		1.278	1.046	1.561	*
Age Cohort	Under 35 years old	35-44 years old	0.634	0.411	0.977	*	0.796	0.576	1.101	
	45-54 years old		1.138	0.783	1.652		0.963	0.740	1.252	
	55-64 years old		0.925	0.631	1.358		0.675	0.515	0.884	*
	65 years or older		0.475	0.272	0.828	*	0.353	0.245	0.508	*
Years in practice	In training	30 years or more	1.325	0.775	2.264		1.692	1.076	2.661	*
	Five years or less		1.049	0.645	1.706		1.712	1.186	2.469	*
	Six to 10 years		1.303	0.801	2.117		2.802	2.005	3.916	*
	11 to 19 years		1.858	1.205	2.866	*	2.072	1.533	2.803	*
	20 to 29 years		1.603	1.012	2.537	*	1.851	1.365	2.510	*
Career stage	Medical Student	Established physician	n/a	n/a	n/a		0.695	0.420	1.150	
	Resident/Fellow		0.970	0.618	1.522		1.488	0.752	2.945	
	Starting Career physician		0.745	0.486	1.142		0.785	0.569	1.083	
	Late career physician		0.775	0.536	1.122		0.569	0.444	0.729	*
	Retired physician		n/a	n/a	n/a		n/a	n/a	n/a	
Practice setting	Academic Hospital	Community-based group practice	1.177	0.790	1.753		0.887	0.655	1.200	
	Community Hospital		1.034	0.634	1.688		0.743	0.543	1.015	
	Community-based inter-professional practice		1.490	0.883	2.511		0.771	0.524	1.133	
	Community-based solo practice		1.455	0.927	2.283		0.751	0.552	1.022	
Practice location	Central Ontario	Greater Toronto Area	1.132	0.689	1.862		1.158	0.821	1.634	
	Eastern Ontario		1.159	0.796	1.687		0.932	0.707	1.227	
	Northern Ontario		1.455	0.856	2.471		1.112	0.766	1.615	
	Western Ontario		0.787	0.516	1.202		0.784	0.582	1.057	
Geographic setting	Remote area	Urban	n/a	n/a	n/a		n/a	n/a	n/a	
	Rural		0.912	0.514	1.617		0.982	0.646	1.491	
	Semi-Rural		1.115	0.680	1.831		1.133	0.805	1.595	
	Suburban		1.118	0.776	1.610		1.102	0.856	1.419	

*=significant at α=0.05 level. LB=lower bound. UB=upper bound.
n/a: Results not reported for cells containing fewer than 30 respondents.

Appendix 4: Top three rankings of contributors and solutions according to demographic variables

Top three rankings of contributors

Top three contributors according to gender* and year

	Top Ranked	Second Highest	Third Highest
2020			
Female (N=658)	1. Patient expectations / accountability	2. Reporting / admin. obligations	3. Health system sustainability
Male (N=463)	1. Patient expectations / accountability	2. Reporting / admin. obligations	4. Practice environment
2021			
Female (N=1117)	1. Patient expectations / accountability	2. Reporting / admin. obligations	4. Health system sustainability
Male (N=862)	1. Patient expectations / accountability	2. Reporting / admin. obligations	3. Practice environment

Note: Each factor is shown with the overall survey rank.

*Gender responses other than male and female were not reported due to small cell sizes.

Top three contributors according to age group* and year

	Top Ranked	Second Highest	Third Highest
2020			
25-34 years old (N=216)	2. Reporting / admin. obligations	1. Patient expectations / accountability	3. Health system sustainability
35-44 years old (N=292)	1. Patient expectations / accountability	2. Reporting / admin. obligations	3. Health system sustainability
45-54 years old (N=265)	1. Patient expectations / accountability	2. Reporting / admin. obligations	4. Practice environment
55-64 years old (N=269)	1. Patient expectations / accountability	2. Reporting / admin. obligations	4. Practice environment
65-74 years old (N=87)	2. Reporting / admin. obligations	1. Patient expectations / accountability	7. Regulatory requirements
75 years or older (N=27)	7. Regulatory requirements	2. Reporting / admin. obligations	1. Patient expectations / accountability
2021			
Under 25 years old (N=36)	10. Environment for students / residents	5. Culture of medicine	9. Lack of supports to promote wellbeing
25-34 years old (N=224)	1. Patient expectations / accountability	5. Culture of medicine	2. Reporting / admin. obligations
35-44 years old (N=493)	1. Patient expectations / accountability	2. Reporting / admin. obligations	4. Health system sustainability
45-54 years old (N=520)	1. Patient expectations / accountability	2. Reporting / admin. obligations	3. Practice environment
55-64 years old (N=504)	1. Patient expectations / accountability	2. Reporting / admin. obligations	3. Practice environment
65-74 years old (N=216)	1. Patient expectations / accountability	2. Reporting / admin. obligations	3. Practice environment
75 years or older (N=40)	2. Reporting / admin. obligations	7. Regulatory requirements	3. Practice environment

Note: each factor is shown with the overall survey rank.

*Responses for those under age 25 were not reported for 2020 due to small cell sizes.

Top three rankings of solutions

Top three solutions according to gender and year*

	Top Ranked	Second Highest	Third Highest
2020			
Female (N=658)	1. Required documentation/ administrative work should be streamlined and reduced, especially that which is unnecessary and unpaid	2. Physicians should be remunerated with appropriate and fair compensation for work	3. Organizational policy changes that enable increased work-life balance should be implemented
Male (N=463)	1. Required documentation/ administrative work should be streamlined and reduced, especially that which is unnecessary and unpaid	2. Physicians should be remunerated with appropriate and fair compensation for work	3. Organizational policy changes that enable increased work-life balance should be implemented
2021			
Female (N=1117)	1. Required documentation/ administrative work should be streamlined and reduced, especially that which is unnecessary and unpaid	2. Physicians should be remunerated with appropriate and fair compensation for work	3. Organizational policy changes that enable increased work-life balance should be implemented
Male (N=862)	1. Required documentation/ administrative work should be streamlined and reduced, especially that which is unnecessary and unpaid	2. Physicians should be remunerated with appropriate and fair compensation for work	3. Organizational policy changes that enable increased work-life balance should be implemented

Note: each factor is shown with the overall survey rank that year.

*Gender responses other than male and female were not reported due to small cell sizes.

Top three solutions according to age group* and year

	Top Ranked	Second Highest	Third Highest
2020			
25-34 years old (N=216)	1. Required documentation/ administrative work should be streamlined and reduced, especially that which is unnecessary and unpaid	2. Physicians should be remunerated with appropriate and fair compensation for work	3. Organizational policy changes that enable increased work-life balance should be implemented
35-44 years old (N=292)	1. Required documentation/ administrative work should be streamlined and reduced, especially that which is unnecessary and unpaid	2. Physicians should be remunerated with appropriate and fair compensation for work	3. Organizational policy changes that enable increased work-life balance should be implemented
45-54 years old (N=265)	1. Required documentation/ administrative work should be streamlined and reduced, especially that which is unnecessary and unpaid	2. Physicians should be remunerated with appropriate and fair compensation for work	3. Organizational policy changes that enable increased work-life balance should be implemented
55-64 years old (N=269)	1. Required documentation/ administrative work should be streamlined and reduced, especially that which is unnecessary and unpaid	2. Physicians should be remunerated with appropriate and fair compensation for work	3. Organizational policy changes that enable increased work-life balance should be implemented
65-74 years old (N=87)	1. Required documentation/ administrative work should be streamlined and reduced, especially that which is unnecessary and unpaid	2. Physicians should be remunerated with appropriate and fair compensation for work	3. Organizational policy changes that enable increased work-life balance should be implemented
75 years or older (N=27)	1. Required documentation/ administrative work should be streamlined and reduced, especially that which is unnecessary and unpaid	2. Physicians should be remunerated with appropriate and fair compensation for work	3. Organizational policy changes that enable increased work-life balance should be implemented

2021			
Under 25 years old (N=36)	3.Organizational policy changes that enable increased work-life balance should be implemented	10. Medical school training should be reformed	1. Required documentation/ administrative work should be streamlined and reduced, especially that which is unnecessary and unpaid
25-34 years old (N=224)	1. Required documentation/ administrative work should be streamlined and reduced, especially that which is unnecessary and unpaid	3. Organizational policy changes that enable increased work-life balance should be implemented	2. Physicians should be remunerated with appropriate and fair compensation for work
35-44 years old (N=493)	1. Required documentation/ administrative work should be streamlined and reduced, especially that which is unnecessary and unpaid	2. Physicians should be remunerated with appropriate and fair compensation for work	3. Organizational policy changes that enable increased work-life balance should be implemented
45-54 years old (N=520)	1. Required documentation/ administrative work should be streamlined and reduced, especially that which is unnecessary and unpaid	2. Physicians should be remunerated with appropriate and fair compensation for work	3. Organizational policy changes that enable increased work-life balance should be implemented
55-64 years old (N=504)	1. Required documentation/ administrative work should be streamlined and reduced, especially that which is unnecessary and unpaid	2. Physicians should be remunerated with appropriate and fair compensation for work	4. EMRs/EHR and other digital health tools should be seamlessly integrated into physician workflow to reduce 'click-fatigue'
65-74 years old (N=216)	1. Required documentation/ administrative work should be streamlined and reduced, especially that which is unnecessary and unpaid	2. Physicians should be remunerated with appropriate and fair compensation for work	4. EMRs/EHR and other digital health tools should be seamlessly integrated into physician workflow to reduce 'click-fatigue'
75 years or older (N=40)	1. Required documentation/ administrative work should be streamlined and reduced, especially that which is unnecessary and unpaid	2. Physicians should be remunerated with appropriate and fair compensation for work	3. Organizational policy changes that enable increased work-life balance should be implemented

Note: each factor is shown with the overall survey rank that year.

*Responses for those under age 25 were not reported for 2020 due to small cell sizes