

IMPROVING INDOOR AIR QUALITY: A PUBLIC HEALTH IMPERATIVE

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Medical Officer of Health & CEO, Peterborough Public Health



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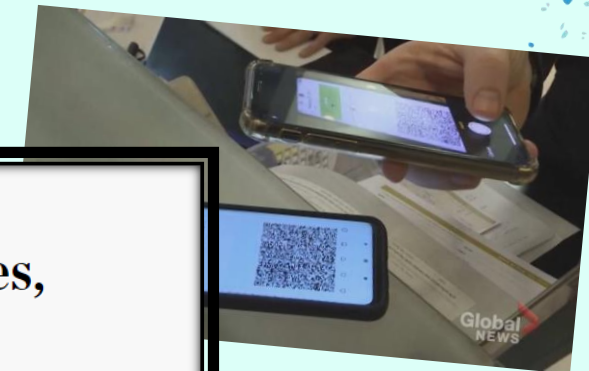
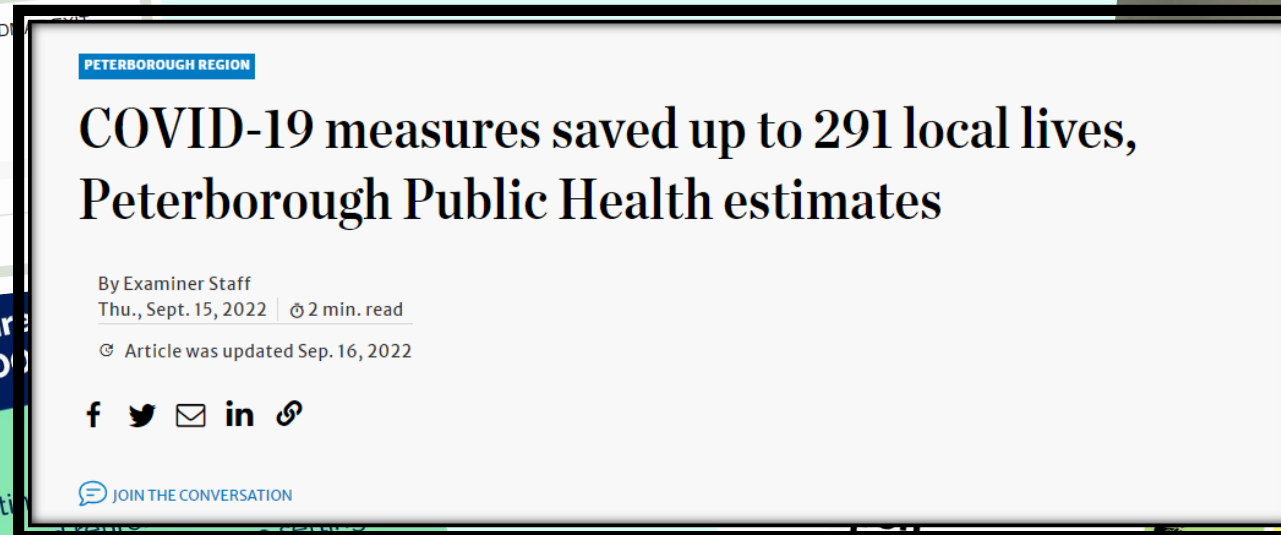
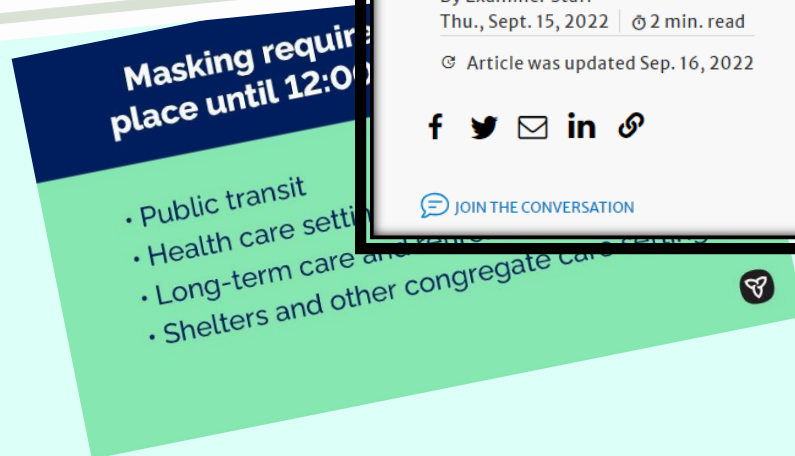
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DECLARATIONS OF INTEREST

- Land acknowledgement: Peterborough/Nogojiiwanong is on the Treaty 20 Michi Saagiig territory of the Williams Treaties First Nations. PPH serves Curve Lake and Hiawatha First Nations.
- Employer: Peterborough Public Health. Previously Labrador-Grenfell Health Authority (2019-21).
- Education: McMaster University, LSHTM, U of Guelph.
- Personal: White Cis-Gendered Male Able-bodied Settler from a privileged class background/upbringing.
- Intellectual Interests:
 - Member of GRADE Working Group and interest in evidence-based public health guidelines & practice;
 - Co-editor of a book called: [Under-Served](#)
- Financial Conflicts of Interest: No financial interests from industry of any kind, including pharmaceutical companies. Past contributions for grant/consulting research, including travel reimbursement, from the WHO, European Commission, CIHR, Endocrine Society, MS International Federation.



A WORLD WITHOUT PROVINCIAL REGULATIONS



WHY DO WE WANT TO IMPROVE IAQ?

- Improved IAQ in indoor public settings will:
 - Reduce the transmission of COVID-19 and other airborne illnesses;
 - Reduce the health impact of other airborne contaminants;
 - Improve the health outcomes related to airborne-related illnesses of the most vulnerable in our community;
 - Support academic performance in schools; and
 - Increase productivity and decrease absenteeism in workplaces.



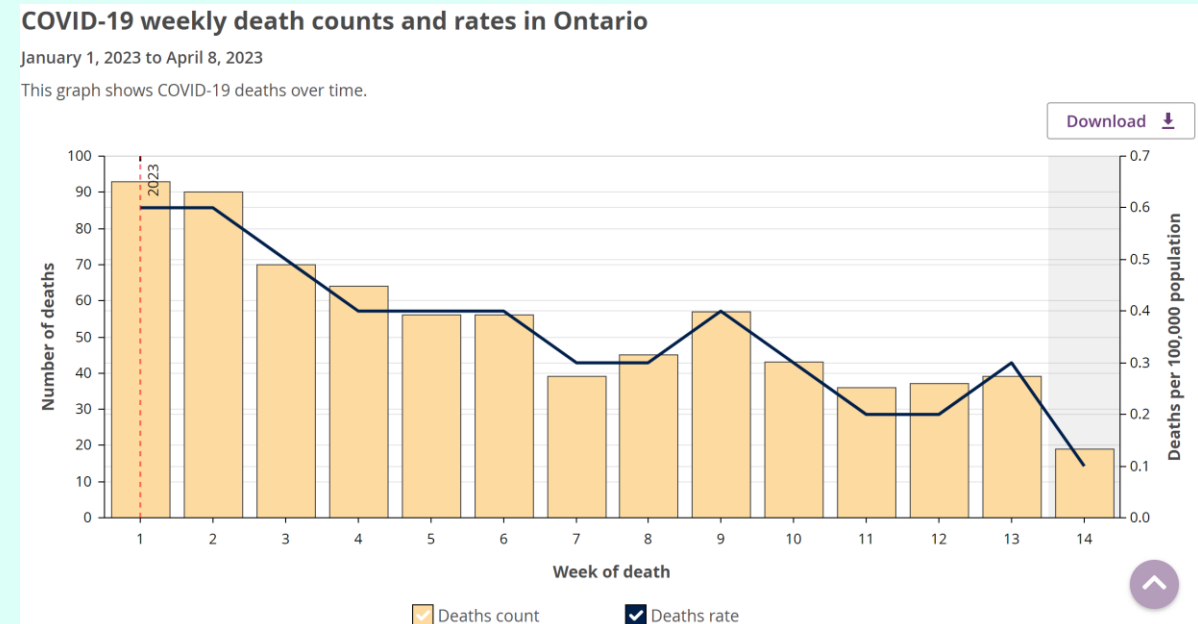
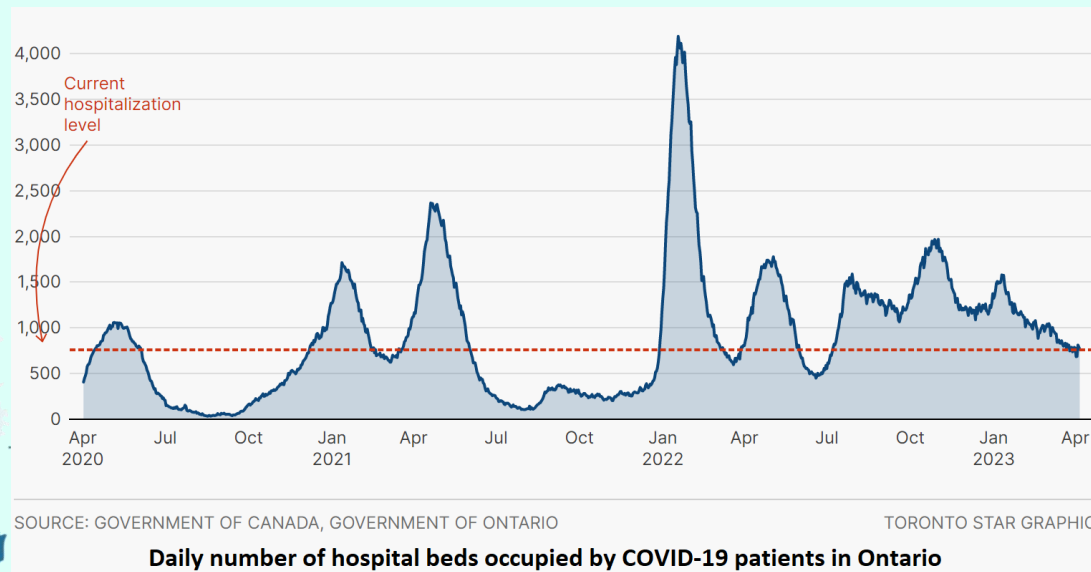
RATIONALE

- The Worker's Compensation Board reports that there have been increases for COVID-19 related claims, year over year, since the pandemic began:
 - 4,831 claims in 2020
 - 7,878 claims in 2021
 - 10,676 claims in 2022
- A majority of the cases have been in municipal, education, and healthcare settings, followed by the business services sector and retail and wholesale sectors
 - Notably, these are all indoor settings



RATIONALE

- The pandemic isn't over; there have been 744 deaths in Ontario in 2023 so far;
- 3 deaths in Peterborough Public Health Region in April 2023 to date;
- Toronto Star investigative report describes it best: [“Why aren't we hearing about COVID waves anymore? Because COVID is at ‘a high tide’- and staying there”](#)



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LONG COVID/POST COVID CONDITION

- WHO definition: *“symptoms and medical complications that persist, return, or emerge 12 weeks after the initial acute infection phase”*
- The best way to prevent Long COVID is to prevent COVID.
- Estimated to affect some 1.4 million Canadians.
- Significant financial cost.

<https://science.gc.ca/site/science/en/office-chief-science-advisor/initiatives-covid-19/post-covid-19-condition-canada-what-we-know-what-we-dont-know-and-framework-action>



Canadian Guidelines for Post-COVID-19 Condition



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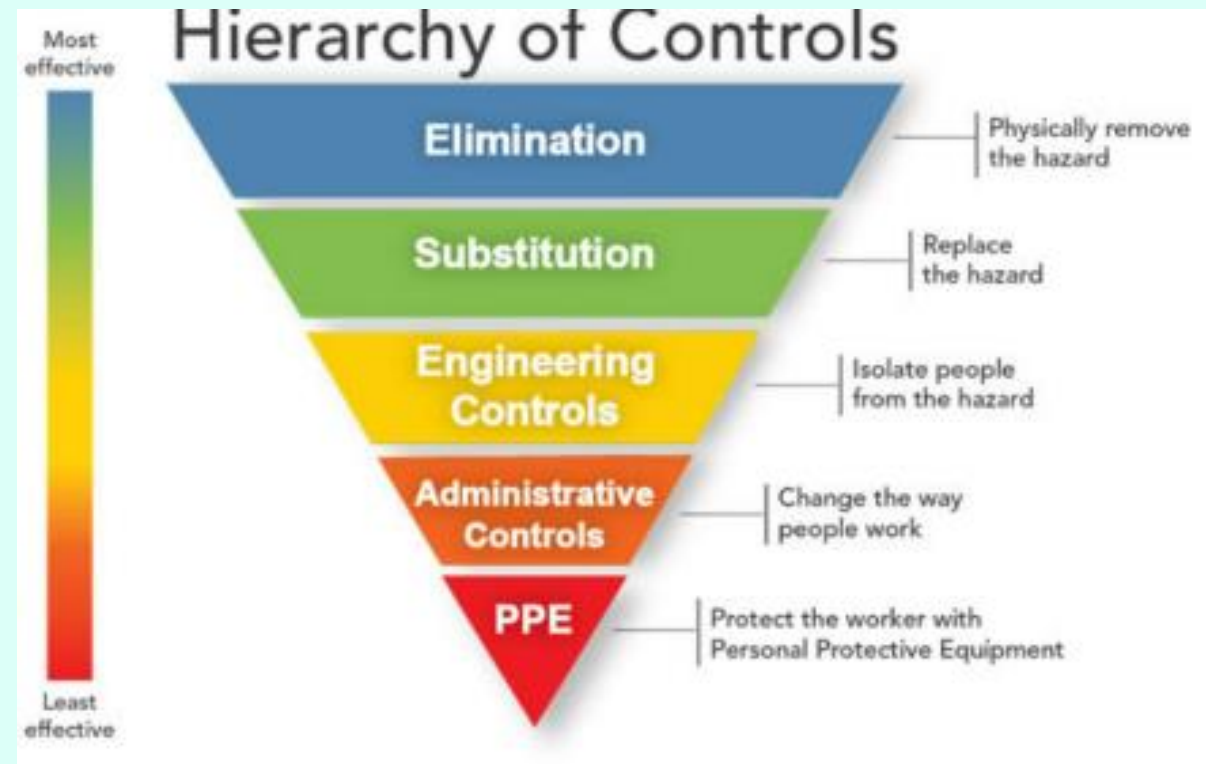
COVID IS AIRBORNE

- The Ontario Science table noted that “aerosols play a role in the transmission of SARS-CoV-2, especially in poorly ventilated indoor areas.”
- Health Canada notes that SARS-CoV-2, “spreads from an infected person to others through respiratory droplets and aerosols when an infected person breathes, coughs, sneezes, sings, shouts, or talks.”

Since the problem is airborne – we need cleaner air!



HIERARCHY OF CONTROLS



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<https://www.ohcow.on.ca/posts/applying-hierarchy-of-controls-for-point-of-care-ra-for-healthcare-workers/>

WHEN I FIRST SUSPECTED COVID IS AIRBORNE

Physical distancing, face masks, and eye protection to prevent person-to-person transmission of SARS-CoV-2 and COVID-19: a systematic review and meta-analysis

Derek K Chu, Elie A Akl, Stephanie Duda, Karla Solo, Sally Yacoub, Holger J Schünemann, on behalf of the COVID-19 Systematic Urgent Review Group Effort (SURGE) study authors*

Summary

Background Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) causes COVID-19 and is spread person-to-person through close contact. We aimed to investigate the effects of physical distance, face masks, and eye protection on virus transmission in health-care and non-health-care (eg, community) settings.

Methods We did a systematic review and meta-analysis to investigate the optimum distance for avoiding person-to-person virus transmission and to assess the use of face masks and eye protection to prevent transmission of viruses. We obtained data for SARS-CoV-2 and the betacoronaviruses that cause severe acute respiratory syndrome, and Middle East respiratory syndrome from 21 standard WHO-specific and COVID-19-specific sources. We searched these data sources from database inception to May 3, 2020, with no restriction by language, for comparative studies and for contextual factors of acceptability, feasibility, resource use, and equity. We screened records, extracted data, and assessed risk of bias in duplicate. We did frequentist and Bayesian meta-analyses and random-effects meta-regressions. We rated the certainty of evidence according to Cochrane methods and the GRADE approach. This study is registered with PROSPERO, CRD42020177047.

Findings Our search identified 172 observational studies across 16 countries and six continents, with no randomised controlled trials and 44 relevant comparative studies in health-care and non-health-care settings (n=25 697 patients). Transmission of viruses was lower with physical distancing of 1 m or more, compared with a distance of less than 1 m (n=10 736; pooled adjusted odds ratio [aOR] 0.18, 95% CI 0.09 to 0.38; risk difference [RD] -10.2%, 95% CI -11.5 to -7.5; moderate certainty); protection was increased as distance was lengthened (change in relative risk [RR] 2.02 per m; $p_{\text{trend}}=0.041$; moderate certainty). Face mask use could result in a large reduction in risk of infection (n=2647; aOR 0.15, 95% CI 0.07 to 0.34, RD -14.3%, -15.9 to -10.7; low certainty), with stronger associations with N95 or similar respirators compared with disposable surgical masks or similar (eg, reusable 12-layer cotton masks; $p_{\text{trend}}=0.090$; posterior probability >95%, low certainty). Eye protection also was associated with less infection (n=3713; aOR 0.22, 95% CI 0.12 to 0.39, RD -10.6%, 95% CI -12.5 to -7.7; low certainty). Unadjusted studies and subgroup and sensitivity analyses showed similar findings.

Interpretation The findings of this systematic review and meta-analysis support physical distancing of 1 m or more and provide quantitative estimates for models and contact tracing to inform policy. Optimum use of face masks, respirators, and eye protection in public and health-care settings should be informed by these findings and contextual factors. Robust randomised trials are needed to better inform the evidence for these interventions, but this systematic appraisal of currently best available evidence might inform interim guidance.

Funding World Health Organization.

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Lancet 2020; 395: 1973-87

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See Comment page 1950

*Study authors are listed in the appendix and at the end of the Article

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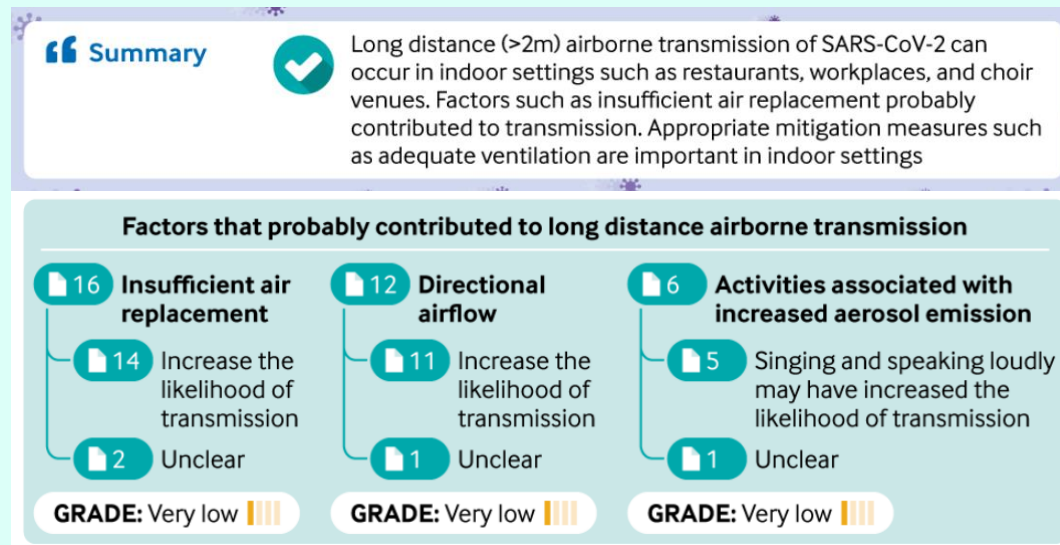
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See Online for appendix

AIRBORNE EVIDENCE

- Superspreader events (funeral home outbreak);
- Long range LTC home transmission;
- Indirectness decreases our certainty, but is still the best evidence we have;



COMMENT | VOLUME 397, ISSUE 10285, P1603-1605, MAY 01, 2021

Ten scientific reasons in support of airborne transmission of SARS-CoV-2

Trisha Greenhalgh • Jose L Jimenez • Kimberly A Prather • Zeynep Tufekci • David Fisman • Robert Schooley

Published: April 15, 2021 • DOI: [https://doi.org/10.1016/S0140-6736\(21\)00869-2](https://doi.org/10.1016/S0140-6736(21)00869-2) • Check for updates



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Duval, 2022

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INFLUENCE OF VENTILATION ON RISK OF AEROSOL TRANSMISSION

- If a person who is infected is in an indoor space, build-up of viral particles will depend on:
 - how infectious the person is
 - the activities the person undertakes
 - the size of the space and its ventilation
- The smaller the room, the faster the build-up of particles containing SARS-CoV-2 virus. In larger spaces, it may take longer for virus-containing aerosols to build up throughout the room. Good ventilation will:
 - move outdoor air into the space
 - dilute potentially contaminated air
 - remove contaminated air through vents or open windows
 - In any size of room, close proximity can result in high-risk exposure, regardless of ventilation



LONG STANDING ATTENTION TO VENTILATION IPAC

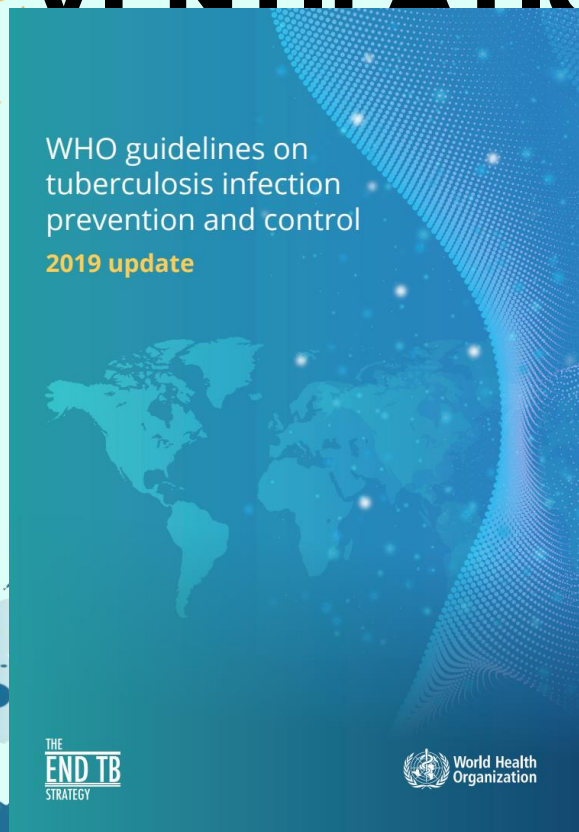


Fig. 1. Comparative assessment for the use of ventilation systems^a

	Natural ventilation	Mixed-mode ventilation	Mechanical ventilation	Recirculated air with hepa filtration
Balance of effects	★★★★★	★★★★★	★★★★★	★★★★★
Resources required	★★★★★	★★★★★	★★★★★	★★★★★
Cost effectiveness	★★★★★	★★★★★	★★★★★	★★★★★
Equity	★★★★★	★★★★★	★★★★★	★★★★★
Acceptability	★★★★★	★★★★★	★★★★★	★★★★★
Feasibility	★★★★★	★★★★★	★★★★★	★★★★★

^a Comparative assessment using a Likert-type model for comparison of interventions through the Grading of Recommendations Assessment, Development and Evaluation (GRADE) GRADEpro Guideline Development Tool (GDT) software. All the items in this scale use the five-point answer format, where the lower number of qualifiers (stars) indicates the least preferred system, based on data extrapolation and on individual judgements and perceptions of each member of the Guideline Development Group on feasibility, resources required and other criteria.

<https://apps.who.int/iris/bitstream/handle/10665/311259/9789241550512-eng.pdf>

PICO 3 - Environmental controls: Mechanical ventilation systems to reduce transmission of *M. tuberculosis* among healthcare workers

Author(s): University of Sydney
Date: 27-29 March 2018

Question: Can mechanical ventilation reduce TB transmission in healthcare workers in TB care or other high TB transmission risk settings when compared to transmission to the same populations in settings with no intervention or different interventions?

Setting: International

Certainty assessment											Impact	Certainty	Importance
N° of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations							
Reduction in LTBI incidence/prevalence (n=7)													
7 1,2,3,4,5,6,7	observational studies	serious ^a	not serious	very serious ^a	not serious	all plausible residual confounding would suggest spurious effect, while no effect was observed	Seven studies evaluated the effect of mechanical ventilation upon TST conversion, each as a part of a composite intervention. Heterogeneity in the interventions precludes meta-analysis. Blumberg 1995 showed that the composite intervention, including 90 negative pressure rooms with fans, was associated with a reduction in TST conversions from 118/3579 (3.3%) to 23/5,153 (0.4%) – a reduction of 2.9%. Welbel 1995 showed that mechanical ventilation, in combination with other engineering measures, was associated with a reduction in TST conversions from 98/2,221 (4.4%) to 6/2108 (0.28%), a reduction of 4.1%. Wenger 1995 found that mechanical ventilation, including installation of 23 isolation rooms, was associated with a reduction in TST conversion from 7/25 (28%) to 3/17 (18%), a reduction of 10%. Maloney 1995 found that mechanical ventilation, in combination with other measures, was associated with a reduction in TST conversions from 15/90 (16.7%) to 4/78 (5.1%), a reduction by 11.5%. Roth 1995 showed that mechanical ventilation was associated with a similar TST conversion rate (7.4 / 1,000 person years without the measures, and 8.1 per 1,000 person years with the measures). Menzies 2002 was conducted among HCWs in microbiology and pathology laboratories. Ventilation was lower among those with TST conversion than among those without TST conversion (p<0.001). The adjusted odds ratio for those with half of the recommended ventilation versus the recommended ventilation was 1.3 (95% CI 0.9-1.9). Finally, in Fella 1995, a composite outcome including UVGI was associated with a reduction in TST conversion from 41/303 (13.5%) in the intervention group to 21/446 (4.7%) in the control group – a reduction of 8.8%. In summary, six of the seven studies showed a reduction in the incidence of TST over the study period.				⊕○○○ VERY LOW	CRITICAL	
Reduction in TB incidence/prevalence (n=0)													
0									not pooled	see comment	-	CRITICAL	
Reduction in LTBI incidence/prevalence in TB laboratory workers (n=1)							Use of ventilation systems (mechanical)	No use of ventilation systems (mechanical)	Relative (95% CI)	Absolute (95% CI)			
1 7c	observational studies	serious ^a	not serious	serious ^a	not serious	all plausible residual confounding would suggest spurious effect, while no effect was observed	14	97	-	see comment	⊕○○○ VERY LOW	CRITICAL	

CI: Confidence interval



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<https://apps.who.int/iris/bitstream/handle/10665/311259/9789241550512-eng.pdf>


PICO 3 - Environmental controls: Mechanical ventilation systems to reduce transmission of *M. tuberculosis* among others in high TB transmission risk settings

Author(s): University of Sydney

Date: 27-29 March 2018

Question: Can mechanical ventilation reduce TB transmission in persons in TB care or others in high TB transmission risk settings when compared to transmission to the same populations in settings with no intervention or different interventions?

Setting: International

Certainty assessment							N° of patients		Effect		Certainty	Importance
N° of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Use of ventilation systems (mechanical)	No use of ventilation systems (mechanical)	Relative (95% CI)	Absolute (95% CI)		
Reduction in LTBI incidence/prevalence (n= 1)												
1 ^{1a}	observational studies	serious ^b	not serious	very serious ^c	not serious	all plausible residual confounding would suggest spurious effect, while no effect was observed	73/189 (38.6%)	75/297 (25.3%)	not pooled	see comment	 VERY LOW	CRITICAL
Reduction in TB incidence/prevalence (n=0)												
0											-	CRITICAL

CI: Confidence interval

Explanations

- Muecke 2006 found rooms with mechanical ventilation were associated with an increase in TST conversions from 75/297 (25%) to 73/189 (39%). Risk difference was +14% with ventilation in rooms compared to no ventilation. Confounding factors are likely, with temporal factors likely playing an important role.
- Temporal factors may have explained difference, shown by the increased infectivity in the second semester. The opening of windows in ventilated and non-ventilated rooms was not reported.
- Transmission in rooms with mechanical ventilation was compared to transmission in rooms without mechanical ventilation. The duration of exposure varied between rooms, and seasonal variation means that other forms of ventilation (e.g. open windows) cannot be excluded.

References

- Muecke C, Isler M, Menzies D, Allard R, Tannenbaum TN, Brassard R. The use of environmental factors as adjuncts to traditional tuberculosis contact investigation. Int J Tuberc Lung Dis; 2006.



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<https://apps.who.int/iris/bitstream/handle/10665/311259/9789241550512-eng.pdf>



PICO 3 - Environmental controls: Ventilation systems (mixed-mode) to reduce transmission of *M. tuberculosis* among healthcare workers

Author(s): University of Sydney

Date: 27-29 March 2018

Question: Can mixed mode ventilation reduce TB transmission in healthcare workers in TB care or other high TB transmission risk settings when compared to transmission to the same populations in settings with no intervention or different interventions?

Setting: International

Certainty assessment							Impact	Certainty	Importance			
N° of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations						
Reduction in LTBI incidence/prevalence (n= 2)												
2 ^{1,2}	observational studies	serious ^a	not serious	very serious ^b	not serious	all plausible residual confounding would suggest spurious effect, while no effect was observed	Two studies addressed this question. Heterogeneity in the interventions precludes meta-analysis. In Yanai 2003, a composite intervention including mixed mode ventilation was associated with a decrease in TST conversions from 13/77 (16.9%) to 2/96 (2.1%) – a decrease of 14.8%. Behrman 1998 evaluated mixed mode ventilation, and other interventions including respiratory protection. TST conversions decreased from 6/50 (12%) to 0/64 (0%) over the study period. Therefore, both studies showed a reduction in TST conversions. Heterogeneity in the interventions precluded meta-analysis.	 VERY LOW	CRITICAL			
Reduction in TB incidence/prevalence (n= 1)							Use of ventilation systems (mixed)	No use of ventilation systems (mixed)	Relative (95% CI)	Absolute (95% CI)		
1 ^{1,c}	observational studies	serious ^a	not serious	very serious ^b	not serious	all plausible residual confounding would suggest spurious effect, while no effect was observed	19/4780 (0.4%)	30/4357 (0.7%)	not pooled	see comment	 VERY LOW	CRITICAL

CI: Confidence interval

Explanations

- The included study has a high risk of bias (confounding relating to secular trends, non-randomised group allocation, lack of allocation concealment, no adjustment for confounding).
- Differences in intervention (applicability). The comparator and intervention is poorly described. The intervention comprises multiple simultaneous components, including engineering, respiratory protection and administrative controls (downgraded by one level).
- The one included study, Yanai 2003, demonstrated that the composite intervention, including mixed mode ventilation, was associated with a decrease in TB cases from 30/4357 (0.7%) to 19/4780 (0.4%), a reduction of 0.29 cases/100 person years.

References


- Yanai H, Limpakamjanarat K, Uthairavith W, Mastro TD, Mori T, Tappero JW. Risk of Mycobacterium tuberculosis infection and disease among health care workers, Chiang Rai, Thailand. Int J Tuberc Lung Dis; 2003.
- Behrman AJ, Shofer FS. Tuberculosis exposure and control in an urban emergency department. Ann Emerg Med; 1998.



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<https://apps.who.int/iris/bitstream/handle/10665/311259/9789241550512-eng.pdf>



World Health Organization | eTB Guidelines

	All	Prevention	Screening	Diagnosis	Treatment	Management of tuberculosis in children and adoles...	Management of tuberculosis and comorbidities		
	Interventions	Administrative controls	Environmental controls	Personal protection	Programmatic (core) components	Regimen options	Risk group identification	Ruling out TB	Testing for TB infection
Health care facility	14		2	1	11				
People living with HIV	10					1	5	4	
Contacts	3						4	1	
Tuberculosis patients	4	4							
Presumptive tuberculosis patients	3	3							
All risk groups	1								
Clinical risk groups	1								
Clinical risk groups (other than HIV)	1								
Lifestyle risk groups	1								
Multidrug- or rifampicin-resistant tuberculosis pa...	1								
Occupational risk groups	1								
Socially disadvantaged groups	1								

Recommendations

Export

Highlight

Upper-room germicidal ultraviolet (GUV) systems are recommended to reduce M. tuberculosis transmission to health workers, persons attending health care facilities or other persons in settings with a high risk of transmission.

Certainty of evidence

Moderate

Recommendation strength

Conditional recommendation for the intervention

Source of recommendation
WHO guidelines on tuberculosis infection prevention and control, 2019 update, Geneva: World Health Organization; 2019.

Ventilation systems (including natural, mixed-mode, mechanical ventilation, and recirculated air through high-efficiency particulate air [HEPA] filters) are recommended to reduce M. tuberculosis transmission to health workers, persons attending health care facilities or other persons in settings with a high risk of transmission.

Certainty of evidence

Very low


Recommendation strength


Conditional recommendation for the intervention

Source of recommendation
WHO guidelines on tuberculosis infection prevention and control, 2019 update, Geneva: World Health Organization; 2019.



E-COVID RECMAP

 COVID19 Recommendations Share your feedback!

Enter the keyword to search in recommendations  [Search and map instructions](#)

All	Infection control	Vaccination	Screening	Diagnosis	Treatment and rehabilitation	Prognosis	Planning and monitoring	Health services and systems
COVID-19 confirmed 2349	322	50	37	106	1616	8	99	111
Patient 1127	151	179	41	88	530	1	38	99
Healthcare professional 1022	490	132	46	82	82	1	21	168
Public 961	373	257	33	72	25		72	129
COVID-19 suspected 747	309	13	67	162	89	2	36	69
Hospital 563	65	15	13	24	385	3	11	46
Healthcare facility 475	229	16	32	32	10		24	132
Country Government 419	44	65	85	9	3		55	158
Chronic post-COVID-19 syndrome 418	6	5	12	58	223	2	33	79
Child 406	58	95	16	25	175	2	14	21
Healthcare services 373	133	21	7	48	17		10	137
Public health officer 356	58	56	6	24	1		91	120
Active Worker (multiple occupations) 317	164	16	33	10	3		54	37
Adult 307	48	112	10	15	104		6	11
At high risk for COVID-19 286	93	73	12	25	48		26	9
National government top managers 285	35	49	7	6	1		91	96
Community 259	113	39	8	4	10		24	61
School 258	159	20	14	9			46	10
Symptomatic 256	65	3	15	60	86	1	13	13
State (Country) 252	28	37	10	9	1		56	111
Pregnancy 234	45	69	7	4	70	1	16	22



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<https://covid19.recmap.org/grid>

PROPOSED SOLUTIONS

- A 'patch work approach' is ineffective
 - Most layers of protection against COVID-19 rely on an individual's behavior and personal choices (masking, vaccinations, physical distance, hand hygiene, etc.)
 - A multi-sectoral approach where we live, learn, work, and play is needed at a *systems level* to fully address the prevention of COVID-19



IMPROVING VENTILATION



LIBRARY CO2 MONITOR PROGRAM

PETERBOROUGH REGION

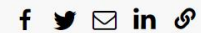
Peterborough Public Library starts CO2 monitor lending program

The hand-held devices can help measure ventilation to assess the risks of catching COVID-19.



By **Ben Cohen** Staff Reporter

▲ Mon., April 4, 2022 | 3 min. read



JOIN THE CONVERSATION



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<https://www.thepeterboroughexaminer.com/news/peterborough-region/2022/04/04/peterborough-public-library-starts-co2-monitor-lending-program.html>

PPH ADVOCACY TO IMPROVE IAQ

- Jan 11: Staff Report received by our BOH

PROPOSED RECOMMENDATIONS

That the Board of Health for Peterborough Public Health:

- receive the staff report, “Improving Indoor Air Quality (IAQ) in Indoor Public Settings”, for information;
- write to municipal and First Nations governments in our region to consider policy levers to improve indoor air quality and encourage the assessment and improvement of indoor air quality in their own public facilities;
- write a letter to the provincial Minister of Health and Minister of Municipal Affairs and Housing to advocate for changes to the Ontario Building Code that would outline the importance of improved IAQ for health reasons as it relates to the Ontario Building Code, with copies to local MPPs, MPs, Curve Lake & Hiawatha First Nations, and all Ontario Boards of Health;
- write to provincial Minister of Health and Minister of Municipal Affairs and Housing and federal Minister of Health, and Minister of Intergovernmental Affairs, Infrastructure and Communities to advocate for funding streams to be created at all levels of government that would help small businesses and other organizations upgrade their HVAC systems, and/or otherwise improve their indoor air quality by using best practices and implementing technological advancements so that clean air becomes the norm in these spaces, with copies to local MPPs, MPs, Curve Lake & Hiawatha First Nations, and all Ontario Boards of Health; and,
- direct staff to liaise with other sectors (e.g., environmental engineers, municipal building departments, the business community, etc.) to fully understand how changes could be implemented in indoor public and residential settings and explore opportunities for improvement.



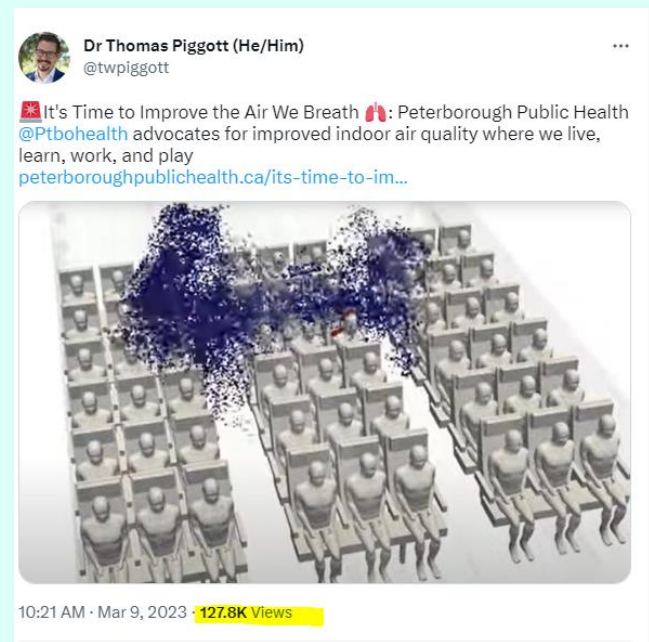
PPH ADVOCACY TO IMPROVE IAQ

- Peterborough Public Health Urges Local **Schools and School Boards** to Explore Improvements to Improve Indoor Air Quality
- Medical Officer of Health Urges Province to Explore Improvements to **Ontario Building Code** to Improve Indoor Air Quality
- Medical Officer of Health Urges **Local Governments** to Explore Improvements to Heating Ventilation and Air Conditioning (HVAC) Systems to Improve Indoor Air Quality
- Peterborough Public Health Urges **Government of Canada** to Explore Improvements to Funding Streams to Supporting Small Businesses and Other Organizations to Improve Indoor Air Quality
- Medical Officer of Health Urges Ministry of Labour, Immigration, Training and Skills Development to Explore Improvements to **Occupational Health and Safety Act** to Improve Indoor Air Quality



KEY PARTNERS?

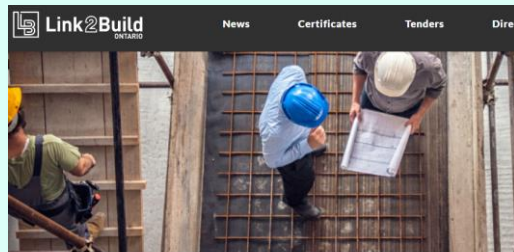
- direct staff to liaise with other sectors (e.g., environmental engineers, municipal building departments, the business community, etc.) to fully understand how changes could be implemented in indoor public and residential settings and explore opportunities for improvement.





Peterborough Public Health calls on all levels of government to improve indoor air quality in public spaces

Posted March 10 2023 04:17pm



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Board of health calls for Ontario to upgrade to building code ventilation standards

Posted on March 17, 2023

Allison Jones, The Canadian Press

An Ontario board of health is asking the province to amend the building code to mandate higher standards for ventilation, in light of the spread of COVID-19.

The chair of the board of health in Peterborough, Ont., wrote this month to Health Minister Sylvia Jones and Municipal Affairs and Housing Minister Steve Clark to urge the province to apply one of the lessons learned from the pandemic.

"We've learned a great deal about COVID-19 since the pandemic began, most notably, is that COVID-19 is an airborne virus, and does not spread as easily as we once thought by touching contaminated surfaces," Kathryn Wilson wrote.



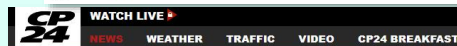
GOVERNMENT

Board of health calls for Ontario to upgrade to building code ventilation standards

The Canadian Press March 20, 2023



PETERBOROUGH, ONT. — An Ontario board of health is asking the province to amend the building code to mandate higher standards for ventilation, in light of the spread of COVID-19.



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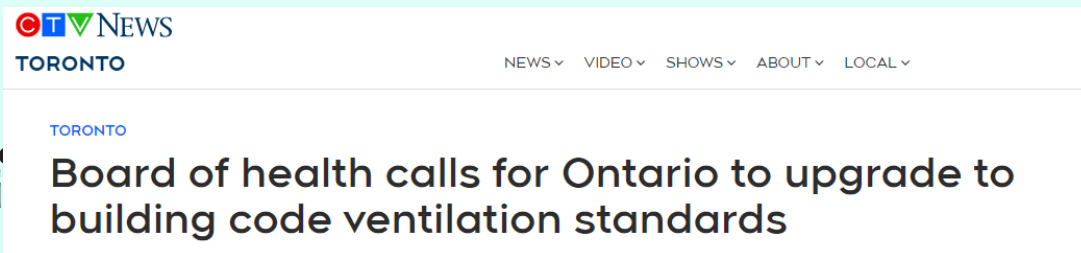
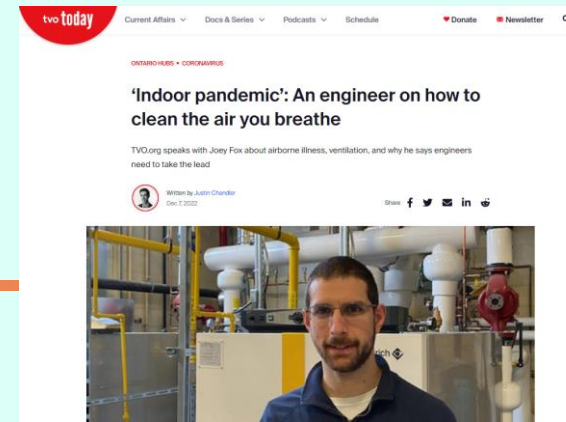


Steve Clark, Ontario's Minister of Municipal Affairs and Housing, speaks to journalists at the Queens Park Legislature, in Toronto on Wednesday, November 16, 2022. An Ontario board of health is asking the province to amend the building code to mandate higher standards for ventilation, in light of the spread of COVID-19. THE CANADIAN PRESS/Chris Young

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Allison Jones, The Canadian Press
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NEXT STEPS

- Provincially: Bill 86 was introduced on March 27
- Locally: Identified schools as a priority
- Creating a resource for PHIs to use in the field
- Hosting a workshop at the Peterborough Public Library for owners and operators of local businesses and workplaces to learn more about improving IAQ in their establishments



MOMENTUM? IAQ LEGISLATION INTRODUCED IN NEW BRUNSWICK

"BE IT THEREFORE RESOLVED the Legislative Assembly urge the government to modernize New Brunswick's air quality laws and standards with a goal of bringing forward a strengthened Clean Air Act and modernized regulations.



12:03 PM · Mar 29, 2023 · 25.8K Views

"BE IT FURTHER RESOLVED that the Legislative Assembly urge the government to **bring forward a plan to monitor, report, and improve air quality systems in public buildings** like hospitals, schools, and government buildings to mitigate the risks associated with the transfer of airborne illnesses and to ensure improved air quality in these buildings for patients, healthcare workers, students, educators, employees, and all who enter these buildings."



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DAUNTING BUT DOABLE; WE'VE DONE THIS BEFORE

- Smoking is the leading cause of preventable death in Canada
- There is no safe level of exposure to secondhand smoke
- Eventually, the policy landscape caught up to the science, and norms (and laws) started to change
- In 2006 that the Smoke-Free Ontario Act (SFOA) came into force
- Prior to 2006, it was an ineffective patchwork of local smoke-free policies (at best)
- Since then, there now protections in place – indoors and out – to prevent people from being exposed to secondhand smoke, vapour and cannabis in a multitude of settings:
 - All public indoor spaces (restaurants, offices, retail, etc.)
 - Community recreation centres, arenas, playgrounds, sports facilities are now smoke, vape, and cannabis-free within 20m from the property
 - Outdoor restaurant and bar patios and are now smoke, vape, and cannabis-free within 9m of the property



DAUNTING BUT DOABLE! FROM THIS – TO THIS:



LAUGHTER should be the only thing in the air...

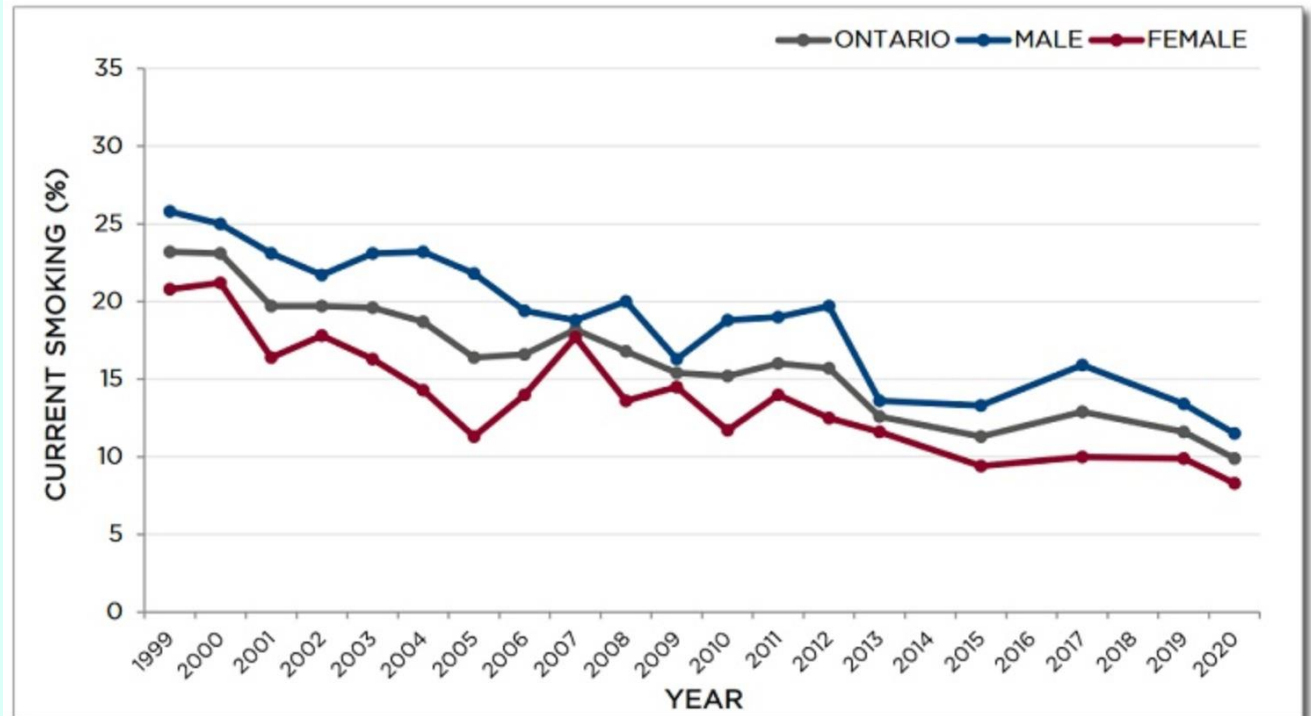
All children's playgrounds and the public areas within 20 meters of its grounds in **Douro-Dummer** are 100% smoke, vape, and cannabis-free spaces
(\$305 fine; Smoke-Free Ontario Act, 2017)

To report second-hand smoke or vapour, please visit
www.peterboroughpublichealth.ca/sfoa

DAUNTING BUT DOABLE!

- A comprehensive approach to tobacco control, including legislative changes to commercial tobacco use is working
- The Canadian government has a set goal of further reducing smoking prevalence to 5% by 2035
- The SFOA came about because of local advocacy and initiatives

FIGURE 2.15: CURRENT SMOKING PREVALENCE* AMONG MALES AND FEMALES, ONTARIO, 1999-2020



*INCLUDES DAILY AND NON-DAILY SMOKERS
DATA SOURCES: CANADIAN TOBACCO USE MONITORING SURVEY (CTUMS), 1999-2012; CANADIAN TOBACCO, ALCOHOL AND DRUGS SURVEY (CTADS), 2013, 2015, 2017; CANADIAN TOBACCO AND NICOTINE SURVEY (CTNS), 2019, 2020

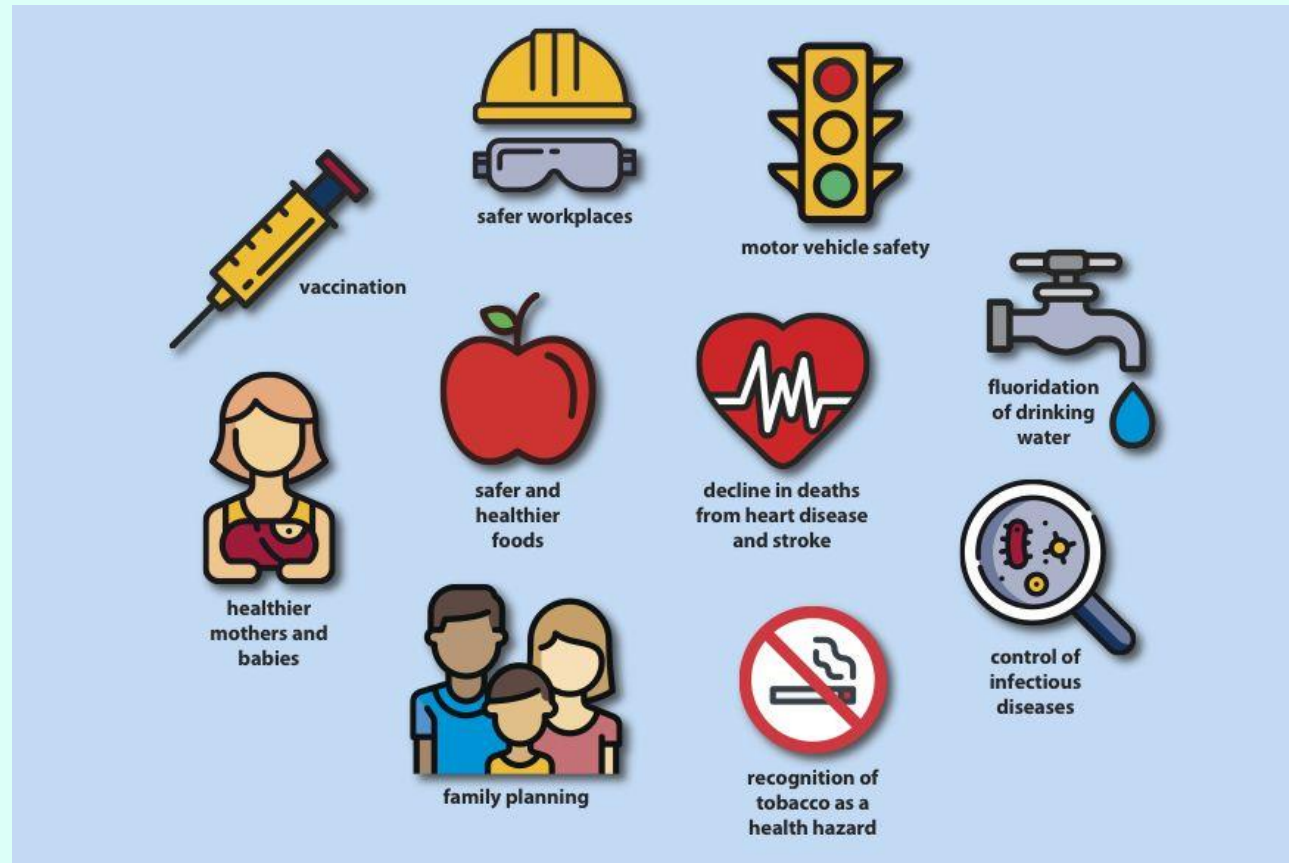


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<https://uwaterloo.ca/tobacco-use-canada/adult-tobacco-use/smoking-provinces/ontario>

IMPROVED IAQ CAN BE THE NEXT PUBLIC HEALTH ACHIEVEMENT



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<https://www.queensu.ca/alumnireview/articles/2018-11-02/what-is-public-health>

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