Optimal messaging of the Canadian 24-Hour Movement Guidelines for Adults aged 18–64 years and Adults aged 65 years and older1

Emma Faught, Alexandra J. Walters, Amy E. Latimer-Cheung, Guy Faulkner, Rebecca Jones, Mary Duggan, Tala Chulak-Bozzer, Kirstin N. Lane, Melissa C. Brouwers, and Jennifer R. Tomasone

Abstract: The Canadian 24-Hour Movement Guidelines for Adults aged 18–64 years and Adults aged 65 years and older (“Guidelines”) integrate recommendations for physical activity, sedentary, and sleep behaviours. Given the novelty of these integrated Guidelines, it was important to consider messaging strategies that would be most effective in reaching Canadian adults. The purpose of this study was to examine optimal messaging of the Guidelines as it pertains to communication channels and messages. Representative samples of Guideline end-users (N = 1017) and stakeholders (N = 877) each completed a cross-sectional survey. Descriptive statistics were calculated along with tests of statistical significance. Inductive content analysis was used to code stakeholders’ comments (i.e., suggestions, concerns) on a draft version of the Guidelines. Most end-users had recently referred to online medical resources; family, friends, and co-workers; and physicians as communication channels for information regarding the movement behaviours. End-users and stakeholders felt that generic messages would foster self-efficacy to meet the Guidelines. Stakeholders highlighted a variety of considerations to ensure the Guidelines are inclusive towards diverse groups within the Canadian population. Findings will inform Guideline messaging.

Novelty

• Most end-users referred to online medical resources; family, friends, and co-workers; and physicians as communication channels.
• End-users and stakeholders indicated that generic messages would foster self-efficacy to meet the Guidelines.
• Stakeholders expressed concerns about the inclusivity of the Guidelines for diverse socioeconomic groups.

Key words: guidelines, integrated, movement behaviours, messaging, communication channels, messages, dissemination.

Résumé : Les directives canadiennes en matière de mouvement sur 24 heures pour les adultes âgés de 18 à 64 ans et les adultes âgés de 65 ans et plus (« Directives ») intègrent des recommandations pour l’activité physique, la sédentarité et le sommeil. Du fait de la nouveauté de ces directives intégrées, il est important d’envisager des stratégies de messagerie efficaces pour rejoindre les adultes canadiens. Le but de cette étude est d’examiner la messagerie optimale des directives en ce qui concerne les canaux de communication et les messages. Des échantillons représentatifs d’utilisateurs finaux des directives (n = 1017) et d’intervenants (n = 877) répondent à une enquête transversale. Des statistiques descriptives sont utilisées avec des tests de signification statistique. Une analyse inductive de contenu est réalisée pour coder les commentaires des parties prenantes (c.-à-d. suggestions, préoccupations) sur une version provisoire des directives. La plupart des utilisateurs finaux ont récemment fait référence aux ressources médicales en ligne, à la famille, aux amis, aux collègues et aux médecins comme canaux de communication pour obtenir des informations sur les comportements liés au mouvement. Les utilisateurs finaux et les parties prenantes pensent que des messages génériques favorisent l’autoefficacité pour se conformer aux directives. Les intervenants soulignent une variété de facteurs à considérer afin de s’assurer que les directives incluent les divers groupes de la population canadienne. Les résultats contribueront à l’amélioration de la messagerie des directives. [Traduit par la Rédaction]

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Introduction

Achieving a balance of physical activity (PA), sedentary behaviour (SB), and sleep can improve a range of health outcomes and reduce the risk of all-cause mortality (Chastin et al. 2015). As such, the Canadian 24-Hour Movement Guidelines for Adults aged 18–64 years and 65 years and older (herein “Guidelines”) integrate evidence related to PA, SB, and sleep into a movement continuum (Ross et al. 2020). These Guidelines are the world’s first integrated movement guidelines for this age demographic. Without a comprehensive messaging plan, Canadians may not necessarily become aware of the Guidelines, nor be motivated to implement the behavioural recommendations.

Previous Canadian PA guidelines have been disseminated primarily through mass media campaigns including print, television, radio, and internet, along with the distribution of guideline materials to practitioners and members of the public (LeBlanc et al. 2015). However, despite these efforts, Canadians’ awareness of existing PA guidelines for adults is low (<13%), suggesting that previously used messaging strategies are not effective (Dale et al. 2016). In fact, at best, effective messaging strategies are expected to result in small increases in awareness, knowledge, attitudes, and intention to adopt guidelines (Tomasono et al. 2020). Tailoring messaging strategies to a target audience can be useful for enhancing the impact of guidelines (Williamson et al. 2020). Such tailoring to Canadian adults includes consideration of the most popular communication channels (i.e., sources of information: Johnson et al. 1995), as well as the optimal messages for promoting self-efficacy to meet the Guidelines (i.e., message content; timing of information delivery).

Given these Guidelines are the world’s first integrated movement recommendations for adults aged 18+ years (Ross et al. 2020), an exploration of how to communicate information about multiple movement behaviours to end-users (i.e., members of the general public) is warranted. Indeed, messaging about multiple movement behaviours may be overwhelming (Prochaska et al. 2008). Previous literature suggests that effective PA guideline messages should provide persuasive information on why and how people should meet recommendations (Brawley and Latimer 2007), be positively framed (Latimer et al. 2010), and be disseminated through credible communication channels to end-users (Brawley and Latimer 2007). However, it is unknown if the use of behavioural thresholds promotes self-efficacy and motivation for movement behaviour change. Traditional threshold messages, including the recommended duration and intensity of activity, have previously been used to market Canadian PA guidelines for adults (e.g., “150 min of moderate- to vigorous-intensity aerobic activity per week”; Tremblay et al. 2011). However, generic messages do not define behavioural thresholds, but rather emphasize achievable steps to movement behaviour change (e.g., “The whole day matters”), and have been theorized as optimal for motivating end-users (Arena et al. 2018). As such, formative research that quantitatively and qualitatively examines optimal communication channels and messages among end-users and stakeholders (i.e., policymakers, health professionals, researchers) was required to inform the development of messaging strategies.

Accordingly, the purpose of this study was to examine optimal (i) communication channels and (ii) messages related to the Guidelines among end-users and stakeholders. Our findings will inform the development of messaging strategies for the Guidelines.

Materials and methods

This study was conducted as part of the knowledge translation process undertaken for the Guidelines (Tomasono et al. 2020b). The study consisted of 2 phases wherein optimal communication channels and messages related to the Guidelines were examined among end-users (Phase 1) and stakeholders (Phase 2). Both phases received clearance from the Queen’s University General Research Ethics Board.

Phase 1: End-users

Participants and recruitment

A third-party data and analytics company (Maru Group, Chicago, 2019) was contracted by ParticipACTION, a nonprofit organization involved in PA promotion in Canada (Spence et al. 2018), to recruit a cross-sectional sample of Canadians aged 18 years and older who are members of the general public. The sample was recruited from an online pool of more than 120 000 Canadians.

Protocol

A survey was delivered online in November 2019. Letters of Information were integrated into the survey and consent was obtained prior to survey initiation. All responses were anonymous. The survey was accessible in both English and French, the 2 official languages in Canada (Office of the Commissioner of Official Languages 2018). Participants took approximately 10 min to complete the survey and were compensated with a small cash incentive according to Maru/Matchbox protocol.2

Measures

The full end-user survey is presented in Appendix A. Questions were adapted from formative research conducted by the Office of Disease Prevention and Health Promotion in the United States (Bevinton et al. 2020) to inform the dissemination plan for the Physical Activity Guidelines for Americans, 2nd edition. Participants were first asked to report demographic information (e.g., sex, age).

The second section of the survey assessed end-users’ recent use of communication channels, as follows:

Information seeking: Participants were asked to select whether they had searched for information on any of the 3 movement behaviours in the past month.

Communication channels: From a list of 13 communication channels (e.g., physicians, social media), participants were asked to

Les nouveautés

• La plupart des utilisateurs finaux ont fait référence aux ressources médicales en ligne, à la famille, aux amis, aux collègues et aux médecins comme canaux de communication.
• Les utilisateurs finaux et les intervenants indiquent que des messages génériques favoriseraient l’autoefficacité pour se conformer aux directives.
• Les intervenants se sont dit préoccupés par l’inclusivité des directives pour divers groupes socio-économiques.

Mots-clés : directives, intégré, comportements en matière de mouvement, messagerie, canaux de communication, messages, diffusion.
select any that they had referred to in the past month for each movement behaviour they had sought information about. Subsequently, participants were asked to report the effectiveness of each communication channel to which they referred on a 3-point scale (1, not effective; 2, somewhat effective; 3, very effective).

The third section of the survey assessed participants’ perceptions of messages, as follows:

**Types of Information**: Participants were asked to select any among 6 different types of information (e.g., practical examples, clear instructions) that they found to be the most motivating to meet the recommendations for each movement behaviour.

**Timing of Information delivery**: Participants were asked to select 1 of 8 different options for the timing of information delivery. Options reflected receiving information about all 3 movement behaviours together versus each movement behaviour separately; whether to receive information all at once or at regularly scheduled intervals; or whether to receive information about the behaviour easiest or most difficult to change.

**Taglines**: A variety of taglines were drafted for this study based on existing promotional materials related to the 24-Hour Movement Guidelines for Children and Youth (Tremblay et al. 2016) and Early Years (Tremblay et al. 2017). Taglines from international movement behaviour guidelines such as the American “Move Your Way” campaign (Bevington et al. 2020) and the Australian Physical Activity and Sedentary Behaviour Guidelines were also included (Australian Government Department of Health 2014). Eleven generic taglines, each emphasizing the importance of movement over the 24-h day, were included. Two threshold taglines were added, which stated the recommended intensities and durations for each movement behaviour. All taglines were reviewed by members of the authorship team with expertise in branding, marketing, and health promotion. Participants were asked to choose their top 3 taglines among the 13 tagline options based on the extent to which the taglines were efficacy-boosting (i.e., promoted self-efficacy to meet the Guideline recommendations).

**Data analysis**

All statistical analyses were completed using SPSS Software (version 26; IBM Corp.). Participants were stratified into 2 age groups: adults aged 18–64 years and adults aged 65+ years. Descriptive statistics and frequency counts were calculated for participant demographics, as well as for questions that assessed optimal communication channels and messages. Nonparametric χ² goodness-of-fit tests were conducted to determine if observed frequencies significantly differed from expected frequencies. Where there was no assumption of equal variances (Information Seeking, Communication Channels, Types of Information), expected values (reflecting the number of participants who selected a particular option vs. those who did not) were manually inputted. A test assuming equal variances was conducted for Timing of Information Delivery, with individual post hoc analyses including Bonferroni corrections (α = 0.05/7), to determine the most preferred option. Bonferroni corrections were also made to account for multiple comparisons for Information Seeking (α = 0.05/2), Communication Channels (α = 0.05/12), and Types of Information (α = 0.05/5).

With regard to Taglines, participants were grouped to determine if generic taglines were exclusively chosen as efficacy-boosting, or if threshold taglines were also chosen as efficacy-boosting. A nonparametric χ² goodness-of-fit test was run to examine whether participants chose exclusively generic taglines in their top 3 choices versus choosing at least 1 threshold tagline among their top 3 choices more than could be expected by chance. Equal variances for this test were not assumed since only 2 out of 13 taglines were threshold taglines. An additional nonparametric χ² goodness-of-fit test (assuming equal variances) was run for all taglines to determine if each tagline was chosen significantly more than could be expected by chance. Individual post hoc analyses with Bonferroni corrections for each of the taglines were run to confirm the tagline that was chosen most frequently (α = 0.05/12).

**Phase 2: Stakeholders**

**Participants and recruitment**

A survey was administered as part of the cross-sectional survey that fulfilled the AGREE-II and GRADE Evidence-to-Decision component of the Guideline Development Process (Ross et al. 2020). The study sample comprised Canadian stakeholders (i.e., policymakers, health practitioners, researchers, educators, etc.) who may use the Guidelines in their professional role. Recruitment was facilitated by members of the Guideline Development Consensus Panel (Ross et al. 2020) and Knowledge Translation Advisory Committee (Tomaszone et al. 2020b). Members, who are relevant stakeholders in the PA, SB, and sleep communities in Canada, were encouraged to invite individuals in their professional networks to participate in the online survey. Snowball sampling beyond the professional networks of the members was also encouraged to recruit additional participants.

**Protocol**

The survey was administered via the Qualtrics software platform (Qualtrics © 2019, Provo, Utah, USA) and was delivered via email in January and February of 2020. The protocol for letters of information, consent, anonymity, and languages were identical to Phase 1. Participants took approximately 20 min to complete the survey.

**Measures**

The full stakeholder survey is presented in Appendix B. Basic demographic information (e.g., age, sex) was collected in the first section of the survey.

**Feedback on Guidelines**: The second section of the survey solicited stakeholders’ feedback on the Guidelines and was adapted from a similar survey delivered during the development of the Canadian 24-Hour Movement Guidelines for Children and Youth (Tremblay et al. 2016). Participants were provided with the full, 2-page version of the draft scientific Guidelines. Participants were then shown 1 section of the Guidelines at a time (e.g., title) and were asked to provide any comments they had about each section. Additionally, stakeholders were asked to provide feedback on overall Guideline importance, relevance, usefulness, advantages/disadvantages of the integrated approach, costs, benefits, and applicability to Canadians. It was made clear where stakeholders were being asked to consider the perspective of end-users when responding. Stakeholders provided their feedback in open-ended comment boxes.

**Taglines**: The third section of the survey assessed generic taglines among stakeholders. Only the top 6 taglines identified in Phase 1 were shown to participants. Narrowing down the options in this way lent itself to generating clearer results in Phase 2. Participants were asked to rank the 6 taglines based on the extent to which they believed they would be efficacy-boosting for Guideline end-users.

**Data analysis**: All statistical analyses were completed using SPSS Software (version 26; IBM Corp.). Descriptive statistics and frequency counts were calculated for participant demographics. Feedback on Guidelines: Stakeholders’ comments were coded by E.F. and A.J.W. using inductive content analysis (Elo and Kyngäs 2008) to identify prevailing suggestions or concerns that could inform messaging of the Guidelines. Initial codes were grouped into overarching categories, which were then reviewed and refined by collapsing, separating, or deleting. Key suggestions/concerns were grouped in hierarchical categories and defined using content-characteristic words. Comments in English and French were analyzed in tandem and combined in the analyses. Finally, the frequency of each suggestion and/or concern was quantified by...
Table 1. End-users’ and stakeholders’ demographic characteristics.

<table>
<thead>
<tr>
<th></th>
<th>Phase 1</th>
<th>Phase 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Adults 18–64 y, n = 774</td>
<td>Adults 65+ y, n = 243</td>
</tr>
<tr>
<td>Age</td>
<td>42.18 (±12.49)</td>
<td>71.67 (±5.18)</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>239 (30.9)</td>
<td>71 (29.2)</td>
</tr>
<tr>
<td>Female</td>
<td>535 (69.1)</td>
<td>172 (70.8)</td>
</tr>
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<td></td>
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<td>134 (55.1)</td>
</tr>
<tr>
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<td>119 (15.4)</td>
<td>42 (17.3)</td>
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<tr>
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<td>251 (32.4)</td>
<td>66 (27.2)</td>
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<tr>
<td>Aboriginal</td>
<td>39 (5.0)</td>
<td>11 (4.5)</td>
</tr>
<tr>
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<td>330 (42.6)</td>
<td>104 (42.8)</td>
</tr>
<tr>
<td>Caribbean</td>
<td>19 (2.4)</td>
<td>3 (1.2)</td>
</tr>
<tr>
<td>Latin, Central, and South American</td>
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<td>0 (0)</td>
</tr>
<tr>
<td>African</td>
<td>10 (1.3)</td>
<td>1 (0.4)</td>
</tr>
<tr>
<td>Arab/West Asian</td>
<td>15 (1.9)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>South Asian</td>
<td>31 (4.0)</td>
<td>1 (0.4)</td>
</tr>
<tr>
<td>Chinese</td>
<td>52 (6.7)</td>
<td>1 (0.4)</td>
</tr>
<tr>
<td>Other East and Southeast Asian</td>
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<td>1 (0.4)</td>
</tr>
<tr>
<td>Oceania</td>
<td>1 (0.1)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>Jewish</td>
<td>13 (1.7)</td>
<td>8 (3.3)</td>
</tr>
<tr>
<td>Other</td>
<td>20 (2.6)</td>
<td>5 (2.1)</td>
</tr>
<tr>
<td>Employmentb</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed (≥30 h/wk)</td>
<td>432 (55.8)</td>
<td>9 (3.7)</td>
</tr>
<tr>
<td>Employed (&lt;30 h/wk)</td>
<td>114 (14.7)</td>
<td>19 (7.8)</td>
</tr>
<tr>
<td>Full-time student</td>
<td>42 (5.4)</td>
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</tr>
<tr>
<td>Homemaker</td>
<td>59 (7.6)</td>
<td>5 (2.1)</td>
</tr>
<tr>
<td>Retired</td>
<td>44 (5.7)</td>
<td>205 (84.4)</td>
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<tr>
<td>Currently looking for work</td>
<td>38 (4.9)</td>
<td>1 (0.4)</td>
</tr>
<tr>
<td>Not working for medical reasons</td>
<td>41 (5.3)</td>
<td>3 (1.2)</td>
</tr>
<tr>
<td>Other</td>
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<td>1 (0.4)</td>
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<tr>
<td>Associated sectorc</td>
<td></td>
<td></td>
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<tr>
<td>Sport</td>
<td></td>
<td>273 (33.4)</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td>271 (33.2)</td>
</tr>
<tr>
<td>Recreation</td>
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<td>232 (28.4)</td>
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<td>276 (33.8)</td>
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<tr>
<td>Nongovernmental organization</td>
<td></td>
<td>63 (7.7)</td>
</tr>
<tr>
<td>Research</td>
<td></td>
<td>249 (30.5)</td>
</tr>
<tr>
<td>Government</td>
<td></td>
<td>87 (10.6)</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td>34 (4.2)</td>
</tr>
<tr>
<td>Income</td>
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<tr>
<td>&lt;$24 999</td>
<td>74 (9.6)</td>
<td>25 (10.3)</td>
</tr>
<tr>
<td>$25 000 to &lt;$34 999</td>
<td>56 (7.2)</td>
<td>22 (9.1)</td>
</tr>
<tr>
<td>$35 000 to &lt;$49 999</td>
<td>83 (10.7)</td>
<td>43 (17.7)</td>
</tr>
<tr>
<td>$50 000 to &lt;$74 999</td>
<td>148 (19.1)</td>
<td>56 (23.0)</td>
</tr>
<tr>
<td>$75 000 to &lt;$99 999</td>
<td>95 (12.3)</td>
<td>32 (13.2)</td>
</tr>
<tr>
<td>$100 000 to &lt;$124 999</td>
<td>87 (11.2)</td>
<td>11 (4.5)</td>
</tr>
<tr>
<td>≥$125 000</td>
<td>117 (15.1)</td>
<td>12 (7.4)</td>
</tr>
<tr>
<td>Undisclosed</td>
<td>114 (14.7)</td>
<td>36 (14.8)</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
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<td>No certificate, diploma, or degree</td>
<td>17 (2.2)</td>
<td>7 (2.9)</td>
</tr>
<tr>
<td>Secondary school diploma or equivalent</td>
<td>218 (28.3)</td>
<td>95 (39.0)</td>
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<tr>
<td>Apprenticeship or trades certificate or diploma</td>
<td>187 (24.2)</td>
<td>49 (20.2)</td>
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<tr>
<td>Other non-university certificate or diploma</td>
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<td>0 (0.0)</td>
</tr>
<tr>
<td>University certificate or diploma below bachelor level</td>
<td>204 (26.4)</td>
<td>43 (19.8)</td>
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<tr>
<td>University certificate or diploma at or above bachelor level</td>
<td>148 (19.1)</td>
<td>44 (18.5)</td>
</tr>
<tr>
<td>Province</td>
<td></td>
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<tr>
<td>Alberta</td>
<td>74 (9.6)</td>
<td>21 (8.6)</td>
</tr>
<tr>
<td>British Columbia</td>
<td>125 (16.1)</td>
<td>35 (14.4)</td>
</tr>
<tr>
<td>Manitoba</td>
<td>29 (3.7)</td>
<td>4 (1.6)</td>
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<tr>
<td>New Brunswick</td>
<td>12 (1.6)</td>
<td>3 (1.2)</td>
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<tr>
<td>Newfoundland and Labrador</td>
<td>8 (1.0)</td>
<td>1 (0.4)</td>
</tr>
<tr>
<td>Nova Scotia</td>
<td>24 (3.1)</td>
<td>12 (4.9)</td>
</tr>
</tbody>
</table>
Table 1 (concluded).

<table>
<thead>
<tr>
<th>Phase 1</th>
<th>Phase 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>N = 1017 end-users</td>
<td>N = 877 stakeholders</td>
</tr>
<tr>
<td>Adults 18–64 y, n = 774</td>
<td>Adults 65+ y, n = 243</td>
</tr>
<tr>
<td>Ontario</td>
<td>274 (35.4)</td>
</tr>
<tr>
<td>Prince Edward Island</td>
<td>1 (0.1)</td>
</tr>
<tr>
<td>Quebec</td>
<td>200 (25.8)</td>
</tr>
<tr>
<td>Saskatchewan</td>
<td>27 (3.5)</td>
</tr>
</tbody>
</table>

Note: All values are n (%) except age, which is means (±SD). Valid percentages are reported to account for missing data.

*Ethnicity categories included examples as follows: British Isles (e.g., English, Irish, Scottish), Other European (e.g., German, Russian, Italian, Norwegian), Aboriginal (e.g., Inuit, Métis, North American Indian), Other North American (e.g., Canadian, American, Newfoundland, Québécois), Caribbean (e.g., Jamaican, Barbadian, Cuban, West Indian), Latin, Central and South American (e.g., Mexican, Argentinian, Guatemalan, Peruvian), African (e.g., South African, Ethiopian, Nigerian, Zimbabwean), Arab/West Asian (e.g., Lebanese, Moroccan, Iranian, Turk), South Asian (e.g., East Indian, Pakistani, Goan, Sri Lankan), Chinese, Other East and Southeast Asian (e.g., Filipino, Vietnamese, Korean, Japanese), Oceanian (e.g., Australian, New Zealander, Fijian, Samoan), Jewish (nondenominational), Other.

*Employment status was not assessed for stakeholders as it was assumed that nearly all were employed.

*Associated sector was only assessed for stakeholders. Participants could select any that apply.

*End-users reported their province of residence; stakeholders reported their primary work location.

summing the total number of responses for each key code (i.e., frequency counts).

Tags: Rank data was analyzed with frequency counts. A non-parametric χ² goodness-of-fit test (assuming equal variances) was conducted for all tagline options to determine whether each tagline was chosen significantly more than could be expected by chance. Individual post hoc analyses with Bonferroni corrections for each of the 6 taglines were run to confirm the tagline that was chosen most frequently (α = 0.05/5).

Results

Phase 1

Participants

See Table 1 for complete demographic information. A total of 1017 end-users took the Phase 1 survey: n = 774 adults aged 18–64 years (mean age (M_age) = 42.2 ± 12.5 years), and n = 243 adults aged 65+ years (M_age = 71.7 ± 5.2 years). The majority of participants identified as female (69.1%, n = 535 adults aged 18–64 years; 70.8%, n = 172 adults aged 65+ years). The most commonly reported ethnic origin was “North American” (42.6%, n = 330 adults aged 18–64 years; 42.8%, n = 104 adults aged 65+ years). The majority of adults aged 18–64 years (70.5%, n = 546) were employed full- or part-time and the majority of adults aged 65+ years (84.4%, n = 205) were retired. There was a distribution of participants across annual income levels for both age groups. Most adults aged 18–64 years (65.2%, n = 504) and adults aged 65+ years (51.5%, n = 125) had completed a postsecondary diploma/degree. Participants were mostly from Ontario and Quebec (61.8%, n = 474 adults aged 18–64 years; 65.1%, n = 158 adults aged 65+ years).

Communication channels

Information seeking

End-users’ information-seeking behaviours are reported in Table 2. Significantly more adults aged 18–64 years had searched for PA information than information about sleep (χ² (1) = 19.95, p < 0.001) or SB (χ² (1) = 113.57, p < 0.001). Significantly more adults aged 18–64 years had searched for sleep information than SB information (χ² (1) = 45.90, p < 0.001). Significantly more adults aged 65+ years had searched for PA information than SB information (χ² (1) = 21.82, p < 0.001), but not sleep information (χ² (1) = 3.62, p = 0.057). Significantly more adults aged 65+ years had searched for sleep information than SB information (χ² (1) = 10.02, p = 0.002).

Communication channels

End-users’ recent use of communication channels are reported in Table 3. Among adults aged 18–64 years, “online medical resources” and “family, friends, and co-workers” were referred to by significantly more participants than “social media” (χ² (1) = 18.62, p < 0.001) and all other communication channels for PA information. For SB and sleep information, significantly more adults aged 18–64 years accessed “online medical resources” (χ² (1) = 10.98, p < 0.001) and “physicians” (χ² (1) = 13.48, p < 0.001), respectively, and all other communication channels. For all 3 movement behaviours, the greatest proportion of adults aged 18–64 years reported that these commonly accessed communication channels were “somewhat effective” (Table 4). For PA information, significantly more adults aged 65+ years accessed “community health centres”, “online medical resources”, “physicians”, “family, friends, and co-workers”, “health coaches or personal trainers”, “TV, radio, and news outlets”, and “somewhere else online” than “kinesiologists” (χ² (1) = 9.23, p = 0.002) and all other communication channels. There were no significant differences in the number of adults aged 65+ years who referred to particular communication channels for SB information. For sleep information, significantly more adults aged 65+ years referred to “online medical resources”, “physicians”, “TV, radio, and news outlets”, and “somewhere else online” in comparison with “kinesiologists” (χ² (1) = 9.10, p = 0.003) and all other communication channels. For all 3 movement behaviours, adults aged 65+ years reported nearly all of the communication channels were “somewhat effective”, except for “physicians” and “health coaches and personal trainers” who were considered “very effective” for PA information (Table 4).

Messages

Types of information: End-users’ choice for different types of information in terms of motivating behaviour change are reported in Table 5. Significantly more adults aged 18–64 years reported that practical examples related to PA would be motivating to meet the Guidelines in comparison with clear instructions on performing the behaviour (χ² (1) = 23.58, p < 0.001) and all other types of information. Significantly more adults aged 18–64 years reported that information about how much to engage in SB and practical examples related to the behaviour would be motivating in comparison with tips on how to meet the recommendations with family and friends (χ² (1) = 16.03, p < 0.001) and all other types of information. Significantly more adults aged 18–64 years reported that information about how much to sleep and practical examples related to the behaviour would be motivating in comparison with clear instructions (χ² (1) = 23.08, p < 0.001) and all other types of information. Significantly more adults aged 65+ years reported that information about how much to engage in PA, practical examples, and clear instructions related to the behaviour would be motivating in comparison with visual examples (i.e., pictures, videos; χ² (1) = 16.77, p < 0.001) and all other types of information. There were no significant differences in the types of information adults aged 65+ years reported as motivating for SB. Significantly
### Table 2. End-users’ information seeking activity for each movement behaviour.

<table>
<thead>
<tr>
<th>Movement behaviour</th>
<th>Phase 1, N = 1017</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Adults 18–64 y, n = 774</td>
</tr>
<tr>
<td></td>
<td>n (%)</td>
</tr>
<tr>
<td>Physical activity</td>
<td>233 (30.1)</td>
</tr>
<tr>
<td>Sedentary behaviour</td>
<td>97 (12.5)</td>
</tr>
<tr>
<td>Sleep&lt;sup&gt;a&lt;/sup&gt;</td>
<td>176 (22.7)</td>
</tr>
<tr>
<td></td>
<td>χ² (df, p value)</td>
</tr>
<tr>
<td></td>
<td>113.57 (1), p &lt; 0.001*</td>
</tr>
<tr>
<td></td>
<td>4.90 (1), p &lt; 0.001*</td>
</tr>
<tr>
<td></td>
<td>10.54 (1), p &lt; 0.001*</td>
</tr>
</tbody>
</table>

**Note:** Valid percentages are reported to account for missing data. χ² goodness-of-fit tests were conducted to determine significant differences relative to the most frequently selected option.

<sup>a</sup>Bonferroni-corrected α level was p < 0.02.

**Values** are χ² (df, p value), sleep was chosen significantly more than sedentary behaviour among adults 18–64 years (45.90 (1), p = 0.001) and adults 65+ years (10.02 (1), p = 0.002).

### Table 3. End-users’ recent use of communication channels.

<table>
<thead>
<tr>
<th>Physical activity</th>
<th>Phase 1, N = 1017</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Adults 18–64 y, n = 774</td>
</tr>
<tr>
<td></td>
<td>n (%)</td>
</tr>
<tr>
<td>Physician</td>
<td>42 (18.0)</td>
</tr>
<tr>
<td>Nurse</td>
<td>15 (6.4)</td>
</tr>
<tr>
<td>Kinesiologist</td>
<td>11 (4.7)</td>
</tr>
<tr>
<td>Physiotherapist/occupational therapist</td>
<td>38 (16.3)</td>
</tr>
<tr>
<td>Health coach/personal trainer</td>
<td>41 (17.6)</td>
</tr>
<tr>
<td>Community health centre</td>
<td>24 (10.7)</td>
</tr>
<tr>
<td>Family/friends/co-workers</td>
<td>85 (36.5)</td>
</tr>
<tr>
<td>TV/radio/news outlets</td>
<td>36 (15.5)</td>
</tr>
<tr>
<td>Social media</td>
<td>57 (24.5)</td>
</tr>
<tr>
<td>Online medical resources (e.g. WebMD, MayoClinic)</td>
<td>89 (38.2)</td>
</tr>
<tr>
<td>Blogs</td>
<td>49 (21.0)</td>
</tr>
<tr>
<td>Somewhere else online</td>
<td>47 (20.2)</td>
</tr>
<tr>
<td>Government Sources</td>
<td>30 (12.9)</td>
</tr>
</tbody>
</table>

**Sedentary behaviour**

<table>
<thead>
<tr>
<th></th>
<th>Phase 1, N = 1017</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Adults 18–64 y, n = 774</td>
</tr>
<tr>
<td></td>
<td>n (%)</td>
</tr>
<tr>
<td>Physician</td>
<td>22 (22.7)</td>
</tr>
<tr>
<td>Nurse</td>
<td>15 (15.5)</td>
</tr>
<tr>
<td>Kinesiologist</td>
<td>9 (9.3)</td>
</tr>
<tr>
<td>Physiotherapist/occupational therapist</td>
<td>18 (18.6)</td>
</tr>
<tr>
<td>Health coach/personal trainer</td>
<td>21 (21.6)</td>
</tr>
<tr>
<td>Community health centre</td>
<td>12 (12.4)</td>
</tr>
<tr>
<td>Family/friends/co-workers</td>
<td>23 (23.7)</td>
</tr>
<tr>
<td>TV/radio/news outlets</td>
<td>18 (18.6)</td>
</tr>
<tr>
<td>Social media</td>
<td>21 (21.6)</td>
</tr>
<tr>
<td>Online medical resources (e.g. WebMD, MayoClinic)</td>
<td>39 (40.2)</td>
</tr>
<tr>
<td>Blogs</td>
<td>19 (19.6)</td>
</tr>
<tr>
<td>Somewhere else online</td>
<td>18 (18.6)</td>
</tr>
<tr>
<td>Government sources</td>
<td>16 (16.5)</td>
</tr>
</tbody>
</table>

**Sleep**

<table>
<thead>
<tr>
<th></th>
<th>Phase 1, N = 1017</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Adults 18–64 y, n = 774</td>
</tr>
<tr>
<td></td>
<td>n (%)</td>
</tr>
<tr>
<td>Physician</td>
<td>49 (27.8)</td>
</tr>
<tr>
<td>Nurse</td>
<td>21 (11.9)</td>
</tr>
<tr>
<td>Kinesiologist</td>
<td>8 (4.5)</td>
</tr>
<tr>
<td>Physiotherapist/occupational therapist</td>
<td>15 (8.5)</td>
</tr>
<tr>
<td>Health coach/personal trainer</td>
<td>14 (8.0)</td>
</tr>
<tr>
<td>Community health centre</td>
<td>11 (6.3)</td>
</tr>
<tr>
<td>Family/friends/co-workers</td>
<td>44 (25.0)</td>
</tr>
<tr>
<td>TV/radio/news outlets</td>
<td>25 (14.2)</td>
</tr>
<tr>
<td>Social media</td>
<td>23 (13.1)</td>
</tr>
<tr>
<td>Online medical resources (e.g. WebMD, MayoClinic)</td>
<td>73 (41.5)</td>
</tr>
<tr>
<td>Blogs</td>
<td>30 (17.0)</td>
</tr>
<tr>
<td>Somewhere else online</td>
<td>23 (13.1)</td>
</tr>
<tr>
<td>Government sources</td>
<td>23 (13.1)</td>
</tr>
</tbody>
</table>

**Note:** Valid percentages are reported to account for missing data. χ² goodness-of-fit tests were conducted to determine significant differences relative to the most frequently selected option.

<sup>a</sup>Bonferroni-corrected α level was p < 0.004.
more adults aged 65+ years reported that information about how much to sleep, clear instructions, and practical examples related to the behaviour would be motivating in comparison to visual examples (i.e., pictures, videos; $\chi^2 (1) = 7.25, p = 0.007$) and all other types of information.

**Timing of information delivery:** End-users’ preferences for the timing of information delivery are reported in Table 6. Preferences for different timing options were not equally distributed for adults aged 18–64 years ($\chi^2 (1) = 134.71, p < 0.001$) and adults aged 65+ years ($\chi^2 (1) = 40.69, p < 0.001$). Significantly more adults aged 18–64 years preferred to receive information about the behaviour they were struggling with most in comparison to all 3 movement behaviours ($\chi^2 (1) = 9.19, p = 0.002$) and all other timing options. Significantly more adults aged 65+ years preferred to receive information about only sleep, only PA, about the behaviour they find easiest to change, and about all 3 movement behaviours, in comparison with the behaviour they are struggling with most ($\chi^2 (1) = 13.95, p < 0.001$) and all other timing options.
Table 5. Types of information perceived as motivating to end-users.

<table>
<thead>
<tr>
<th>Physical activity</th>
<th>Phase 1, N = 1017</th>
<th>Adults 18–64 y, n = 774</th>
<th>Phase 2, N = 243</th>
<th>Adults 65+ y, n = 243</th>
</tr>
</thead>
<tbody>
<tr>
<td>Examples of how to integrate the behaviour into my daily routine</td>
<td>338 (43.7)</td>
<td>23 (5.1)</td>
<td>622 (25.7)</td>
<td>7 (3.0)</td>
</tr>
<tr>
<td>Having clear instructions on how to perform the behaviour</td>
<td>271 (35.0)</td>
<td>23 (3.0)</td>
<td>593 (25.0)</td>
<td>12 (5.0)</td>
</tr>
<tr>
<td>Information on how much I should engage in this behaviour on a daily basis</td>
<td>253 (32.7)</td>
<td>23 (3.0)</td>
<td>573 (23.5)</td>
<td>11 (4.5)</td>
</tr>
<tr>
<td>Seeing examples (pictures, videos) of the behaviour</td>
<td>265 (34.2)</td>
<td>23 (3.0)</td>
<td>583 (24.2)</td>
<td>12 (5.0)</td>
</tr>
<tr>
<td>Ways on how to engage in the behaviours with my family and/or friends</td>
<td>256 (33.1)</td>
<td>23 (3.0)</td>
<td>586 (24.5)</td>
<td>13 (5.4)</td>
</tr>
<tr>
<td>Tips on how to meet the behaviour with my family and/or friends</td>
<td>229 (29.6)</td>
<td>23 (3.0)</td>
<td>574 (24.4)</td>
<td>11 (4.5)</td>
</tr>
</tbody>
</table>

Sedentary behaviour

| Examples of how to integrate the behaviour into my daily routine                  | 155 (20.0)       | 23 (3.0)               | 623 (26.8)       | 11 (4.6)             |
| Having clear instructions on how to perform the behaviour                         | 112 (14.5)       | 24 (3.2)               | 591 (24.8)       | 12 (5.0)             |
| Information on how much I should engage in this behaviour on a daily basis        | 159 (20.5)       | 23 (3.0)               | 598 (25.5)       | 11 (4.5)             |
| Seeing examples (pictures, videos) of the behaviour                              | 105 (13.6)       | 19 (2.5)               | 592 (25.0)       | 10 (4.1)             |
| Ways on how to engage in the behaviours with my family and/or friends             | 111 (14.3)       | 18 (2.4)               | 599 (25.5)       | 11 (4.5)             |
| Tips on how to meet the behaviour with my family and/or friends                   | 114 (14.7)       | 14 (1.9)               | 601 (25.7)       | 12 (5.0)             |

Sleep

| Examples of how to integrate the behaviour into my daily routine                  | 166 (21.4)       | 26 (3.4)               | 625 (27.0)       | 12 (5.0)             |
| Having clear instructions on how to perform the behaviour                         | 128 (16.5)       | 29 (3.8)               | 598 (25.4)       | 10 (4.1)             |
| Information on how much I should engage in this behaviour on a daily basis        | 185 (23.9)       | 31 (4.1)               | 600 (25.7)       | 11 (4.5)             |
| Seeing examples (pictures, videos) of the behaviour                              | 74 (9.6)         | 17 (2.2)               | 602 (25.8)       | 12 (5.0)             |
| Ways on how to engage in the behaviours with my family and/or friends             | 64 (8.3)         | 13 (1.7)               | 603 (25.9)       | 12 (5.0)             |
| Tips on how to meet the behaviour with my family and/or friends                   | 77 (9.9)         | 14 (1.8)               | 604 (26.0)       | 12 (5.0)             |

Note: Valid percentages are reported to account for missing data. Values are (n (%)).

Table 6. End-users’ preferences for the timing of information delivery.

<table>
<thead>
<tr>
<th>Phase 1, N = 1017</th>
<th>Adults 18–64 y, n = 774</th>
<th>Adults 65+ y, n = 243</th>
</tr>
</thead>
<tbody>
<tr>
<td>n (%)</td>
<td>X^2 (df), p value</td>
<td>n (%)</td>
</tr>
<tr>
<td>About all 3 behaviours at 1 time</td>
<td>124 (16.0)</td>
<td>9.19 (1), p = 0.002*</td>
</tr>
<tr>
<td>To help me improve the behaviour I am struggling with most</td>
<td>158 (20.4)</td>
<td>24 (9.9)</td>
</tr>
<tr>
<td>To help me improve the behaviour that will be easiest for me to change</td>
<td>114 (14.7)</td>
<td>39 (16.0)</td>
</tr>
<tr>
<td>At regularly scheduled intervals/times, but about 1 behaviour at a time</td>
<td>75 (9.7)</td>
<td>19 (7.8)</td>
</tr>
<tr>
<td>Only about physical activity</td>
<td>86 (11.1)</td>
<td>24 (9.9)</td>
</tr>
<tr>
<td>Only about sleep behaviour</td>
<td>121 (15.6)</td>
<td>43 (17.7)</td>
</tr>
<tr>
<td>Only about sedentary behaviour</td>
<td>82 (10.6)</td>
<td>47 (19.3)</td>
</tr>
</tbody>
</table>

Note: All values are n (%). Valid percentages are reported to account for missing data. Values are (χ^2 (df), p value), preference for the 8 options was not equally distributed, assuming equal variances, among adults 18–64 years (134.71 (1), p < 0.001) or adults 65+ years (40.69 (1), p < 0.001). Post hoc χ^2 goodness-of-fit tests were conducted to determine significant differences relative to the most frequently selected option.

Bonferroni-corrected α level was p < 0.007.

Taglines: End-users’ choices regarding efficacy-boosting taglines are reported in Table 7. Frequency counts identified that most participants (85.0%) chose a generic tagline as their top choice. The majority (68.2%) of participants chose exclusively generic taglines among their top 3 choices. Among participants’ top 3 choices, the generic tagline “Move more. Sit less. Sleep better.” was the most frequently selected tagline (47.0%). A χ^2 goodness-of-fit test determined that only generic taglines were chosen among the top 3 choices more than could be expected by chance (χ^2 (1) = 79.46, p < 0.001). A second χ^2 goodness-of-fit test determined that the 13 tagline choices were not equally chosen by participants (χ^2 (12) = 346.96, p < 0.001). Separate post hoc analyses confirmed the most chosen efficacy-boosting tagline was “Move more. Sit less. Sleep better.” (χ^2 (5) = 217.57, p < 0.001).

Phase 2

Participants

A total of 877 stakeholders took part in the Phase 2 survey. For full demographics, see Table 1. Participants’ mean age was 41.1 (±12.8) years. Most participants identified as female (72.2%, n = 622). The most commonly reported ethnic origin was “British.”

The taglines included in this study were drafted based on messages used to communicate other movement behaviour guidelines. Inclusivity of messages was considered from the onset. Given the results of a previous study examining current Canadian Guidelines messaging for persons with a disability (Handler et al. 2019) and that the Guidelines are not intended for persons with a disability, it was acceptable to include tagline phrases related to sitting. However, upon further reckoning, we acknowledge that the “sit less” component of the tagline “Move more. Sit less. Sleep better.” fails to include bodies (Handler et al. 2019) and that the Guidelines are not intended for persons with a disability, it was acceptable to include tagline phrases related to sitting.
Table 7. End-users’ choices of efficacy-boosting taglines to meet the Guidelines.

<table>
<thead>
<tr>
<th>Taglines&lt;sup&gt;a,b&lt;/sup&gt;</th>
<th>Phase 1, N = 1017</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Top three</td>
</tr>
<tr>
<td><strong>Generic taglines</strong></td>
<td></td>
</tr>
<tr>
<td>Move more. Sit less. Sleep better:*</td>
<td>478 (47.0)</td>
</tr>
<tr>
<td>Build your best day</td>
<td>219 (21.5)</td>
</tr>
<tr>
<td>The whole day matters</td>
<td>215 (21.1)</td>
</tr>
<tr>
<td>What’s your best day?</td>
<td>70 (6.9)</td>
</tr>
<tr>
<td>Make the whole day better</td>
<td>203 (20.0)</td>
</tr>
<tr>
<td>How will you make the whole day better?</td>
<td>121 (11.9)</td>
</tr>
<tr>
<td>Sweat. Step. Sleep. Sit.</td>
<td>96 (9.4)</td>
</tr>
<tr>
<td>Move your way. What’s your move?</td>
<td>196 (19.3)</td>
</tr>
<tr>
<td>Sweat more. Sit less. Sleep better.</td>
<td>254 (25.0)</td>
</tr>
<tr>
<td>The best move is your next move.</td>
<td>279 (27.4)</td>
</tr>
<tr>
<td>Every movement counts!</td>
<td>336 (33.0)</td>
</tr>
<tr>
<td><strong>Threshold taglines</strong></td>
<td></td>
</tr>
<tr>
<td>Engage in at least 150 min of moderate-to-vigorous intensity aerobic physical activity per week, at least 2 d of strength-training activity per week; 7–9 h of good quality sleep per day; and no more than 7–9 h of sitting per day</td>
<td>136 (13.4)</td>
</tr>
<tr>
<td>Engage in at least 20–30 min of moderate-to-vigorous intensity aerobic physical activity per day at least 2 d of strength-training activity per week; 7–9 h of good quality sleep per day; and less than 7–9 h of sitting per day</td>
<td>250 (24.6)</td>
</tr>
</tbody>
</table>

Note: All values are n (%). Valid percentages are reported to account for missing data. Bonferroni-corrected alpha level was p < 0.004. Values are χ² (df, p value).

<sup>a</sup>Generic taglines were chosen among participants’ top 3 significantly more than threshold taglines (χ² (1) = 79.46, p < 0.001).

<sup>b</sup>Choice of the 13 tagline options was not equally distributed, assuming equal variances (χ² (12) = 346.96, p < 0.001).

<sup>c</sup>“Move more. Sit less. Sleep better.” was the most efficacy-boosting tagline (χ² (1) = 217.57, p < 0.001).

(49.9%, n = 438). There was a distribution of participants across annual income levels. The majority of participants (89.6%, n = 770) had completed a bachelor’s degree. Most participants worked in Ontario (37.4%, n = 322) and Alberta (15.0%, n = 129).

Feedback on Guidelines

Several unique suggestions and concerns from stakeholders were identified through the open-ended text responses for each item. The most common comments from each section of the survey are highlighted below.

Title: Comments specific to the Title were provided by 390 (44.5%) stakeholders. The most frequent concern about the Title was the high literacy level (n = 57). This was followed by concerns about the Title being too long (n = 44). A suggestion that “movement” is not a good descriptor of the behaviours included within the Guidelines was also cited (n = 14).

Preamble: Comments regarding the Preamble were provided by 430 (49.0%) of stakeholders. Similar to the Title, concerns about the high literacy level (n = 91), and the Preamble being too long (n = 61) were reported most frequently. A further consideration was that clarification was needed as to the target audience for the Guidelines, specifically that the statement “may be appropriate for adults” was confusing (n = 41).

Physical activity: Specific to PA, 420 (47.9%) stakeholders provided comments. The high literacy level (n = 70) was brought forward as the primary concern. Additionally, apprehension that the PA recommendation was detailed in a weekly format, while the other recommendations were in a 24-h format, was frequently mentioned (n = 57). The next cited concern was confusion over the statement “choose activities that challenge balance” (n = 42).

Sedentary behaviour: A total of 370 (42.2%) stakeholders provided comments on the SB recommendation. The most common suggestion was to quantify the “prolonged sitting” recommendation (n = 55). This was followed by the request to define “sedentary” with practical examples (n = 48). Finally, 28 stakeholders suggested the recommendations are unrealistic and/or intimidating for some end-users.

Sleep: The Sleep recommendation was commented on by 325 (37.0%) stakeholders. Defining “good quality sleep” was the most common suggestion (n = 57). Some stakeholders were concerned that the sleep recommendation is not realistic for some individuals, or that the focus on the threshold was excessive (n = 29). Finally, some stakeholders were confused about the distinction in the sleep recommendation for adults aged 18–64 years versus adults aged 65+ years (n = 15).

Integrated recommendation: The Integrated recommendation was commented on by 315 (35.9%) stakeholders. Similar to the aforementioned comments, there was concern regarding the high literacy level (n = 36). Additionally, some stakeholders suggested that the statement is too long and/or unclear (n = 18). Finally, practical examples of varying levels of activities were requested by some stakeholders (n = 16).

Importance: Regarding the importance of the Guidelines for daily use, 203 (23.1%) stakeholders commented. The most common comment was that while the Guidelines were important, they were “too challenging to use” and “impractical for stakeholders’ needs” (n = 27). The next most cited concerns were that the Guidelines were not useful in daily practice (n = 15), and that stakeholders would like to see additional resources written in lay language to help facilitate their use in daily practice (n = 13).

Relevance: A total of 149 (17.0%) stakeholders spoke to the relevance of the Guidelines in their daily practice. Most (n = 80) commented that Guidelines are not very relevant to their practice, since they interact with more complex populations (e.g., acute care, disability-specific), or do not interact with end-users directly (n = 35). Some commented that there are critical barriers to the application of the Guidelines in their daily practice that need to be addressed (e.g., differing abilities, time; n = 11).

Ease of use: The ease of use of the Guidelines was commented on by 138 (15.7%) stakeholders. Over half of the comments suggested stakeholders would use the Guidelines sometimes and/or when the opportunity presented itself (n = 82). Some commented that they would use the Guidelines if promotional materials, infographics, and strategic messaging were available (n = 16).

Integrated advantage/disadvantage: The advantages and/or disadvantages of the integrated Guidelines was commented on by 185 (21.1%) stakeholders. Some commented that the concept of integrated Guidelines was overwhelming or confusing for end-users to understand (n = 28). Stakeholders also suggested the need...
for knowledge translation tools (e.g., infographics) and strategic messaging to help promote Guideline use among end users (n = 22). Several stakeholders commented that they felt there was little and/or no difference between previous Guidelines and the new integrated version (n = 20).

Costs: Of the 124 (14.1%) stakeholders who provided comments about the cost of using the Guidelines, some remarked that they do not know the costs that would be associated and/or the costs are difficult to anticipate (n = 25). Few mentioned there would be financial costs (e.g., printing new materials; n = 20), as well as other intangible costs (e.g., time, n = 19) to using the Guidelines in their professional work.

Benefits outweighing costs: Only 71 stakeholders (8.1%) commented on the potential for the benefits of the Guidelines to outweigh the costs. Responses were variable: some stakeholders suggested there would be intangible costs (n = 8) and others suggested that there would be no benefit to using the Guidelines (n = 7). Some (n = 5) suggested the need for simpler public facing messages to support the Guidelines.

Benefit to all Canadians: Concerns were brought forth from 142 (16.2%) stakeholders regarding equal benefit of the Guidelines across all population groups. Most stakeholders who commented (n = 69) were apprehensive that the Guidelines do not respect varying socioeconomic status and had concerns about accessibility (i.e., time and resources required to achieve the recommendations). Few stakeholders (n = 19) commented concerns regarding general usability and/or practicality for the general public.

Messages

Tags: Stakeholders’ choices of efficacy-boosting taglines for end-users are reported in Table 8. Frequency counts of the rank data identified that the tagline “Move more. Sit less. Sleep better.” was the most chosen efficacy-boosting tagline (50.5%). The χ² goodness-of-fit test indicated that the 6 taglines were not equally chosen (χ² (5) = 563.43, p < 0.001). Six separate post hoc analyses with Bonferroni corrections confirmed the most chosen efficacy-boosting tagline was “Move more. Sit less. Sleep better.” (χ² (1) = 487.96, p < 0.001).

Discussion

This study aimed to examine optimal communication channels and messages related to the Guidelines among end-users and stakeholders. Findings suggest that significantly more end-users searched for PA information in comparison to SB information. Significantly more adults aged 18–64 years also searched for PA information than sleep information. End-users accessed particular communication channels somewhat consistently across movement behaviours, namely online medical resources, family, friends, and co-workers, and physicians. End-users reported that examples of how to integrate each movement behaviour on a daily basis, and information about how much to perform a behaviour (for SB and sleep only), would be motivating to meet the recommendations. Most adults aged 18–64 years preferred to receive information about the movement behaviour most difficult to change, whereas adults aged 65+ years’ preferences were variable. More end-users chose generic taglines as efficacy-boosting than threshold taglines, and the tagline “Move more. Sit less. Sleep better.” was perceived to foster self-efficacy to meet the Guidelines. Stakeholders confirmed that this tagline would be optimal for promoting end-users’ self-efficacy to meet the Guidelines. Stakeholders frequently raised issues with the complexity of the Guidelines, both conceptually and in terms of the language level. Many stakeholders also had concerns about the likelihood of the Guidelines benefitting all population groups equally, with particular focus on how achievable the Guidelines are for varying socioeconomic groups. Findings will directly inform messaging strategies for the Guidelines, as follows.

Our findings demonstrate that Canadian end-users use certain communication channels for all 3 movement behaviours. In developing the American “Move Your Way” campaign, researchers found that PA contemplators showed preferences for online communication channels (e.g., search engines, social media) as well as traditional communication channels (e.g., physicians; Bevington et al. 2020; Piercy et al. 2020). Our results are in agreement with these findings and support the dissemination of the Guidelines through diverse channels. The observed use of online medical resources raises concerns about how to direct end-users toward credible health information. It has been recommended that health organizations strive to promote themselves as “higher-quality brands” in comparison with popular websites (Bates et al. 2006). This will be a key consideration in building the online brand of the Guidelines.

Our findings illustrate important considerations that must be made with regard to the content of Guidelines messages. While end-users reported that practical examples of activities would be motivating to meet the recommendations, our results also revealed that end-users felt behavioural thresholds would be motivating to meet the SB and sleep recommendations. This observation was particularly notable given that the SB and sleep recommendations are novel additions to the Guidelines. Conversely, Canadians have been exposed to PA thresholds in past guidelines (i.e., 150 min per week; Tremblay et al. 2011) and perhaps are now looking for other types of PA-related content to be included or emphasized more in Guideline messages. Interestingly, we observed significant differences in the number of participants who found practical examples (e.g., “make your
commute active”) versus clear instructions (e.g., “perform activity at high enough intensity to elevate heart rate”) to be motivating. Adults aged 18–64 years also demonstrated a preference for receiving information about the behaviour they find most difficult to change. Given that the majority of Canadians do not meet the current PA recommendations (Clarke et al. 2019), and increasing moderate-to-vigorous PA is the strongest determinant of various health outcomes (Janssen et al. 2020), consideration should be given to presenting PA as a “gateway” behaviour to multiple behaviour change. Indeed, it has been theorized that a sequential rather than simultaneous approach to multiple movement behaviour change may be more successful (Noar et al. 2008).

Our results support the use of generic messages in Guideline messaging. Both end-users’ and stakeholders’ ranking of taglines suggested that generic messages are optimal for promoting self-efficacy to meet the Guidelines. Based on these findings, it is important not to misuse threshold behavioural targets. Neglecting to convey that any increase in PA and reduction in SB has health benefits has been described as an error in knowledge translation given the potential negative consequences, such as the scientific thresholds being perceived as a barrier to PA (Warburton and Bredin 2016). Taking a more proactive messaging approach, the threshold targets for the 3 movement behaviours should be translated into motivational messages that present the recommendations as achievable for end-users (Warburton and Bredin 2016). While the tagline “Move more. Sit less. Sleep better.” is based upon messages currently being used in practice and was perceived to best foster self-efficacy to meet the Guidelines, stakeholders raised concerns that the language is not inclusive of persons living with a disability or for persons who need to sit to feel well (e.g., adults with chronic pain or fatigue). These concerns are reflected in literature that advocates for non-ableist messaging (Copeland 2019) and challenges the assumption that sitting and sedentary behaviour are synonymous (Copeland 2016). Given the Knowledge Translation Advisory Committee’s commitment to its principles of equity and inclusivity, we recommend that any language with potential to stigmatize sitting is omitted from Guideline messages. We are exploring alternative generic tagline options to enhance our ability to produce impactful, inclusive, and accessible messages.

Message clarity will be a critical element of Guideline messaging. Stakeholder feedback was unambiguous: the public must have access to understandable recommendations written in lay language and with technical terms defined. Similar concerns about the level of literacy and definitional confusion were highlighted by stakeholders as barriers to the uptake of the 24-Hour Movement Guidelines for Children and Youth (Faulkner et al. 2016). In addition, our findings support the inclusion of practical examples in messages that simplify confusing terms. Moreover, unfamiliar concepts, such as the integration of movement behaviours on a continuum, must be clearly introduced to end-users.

Stakeholders in our study raised concerns about the inclusivity of the Guidelines to varying socioeconomic groups. The Canadian Medical Association Journal recently published an editorial criticizing past guidelines for not acknowledging socioeconomic barriers to PA (Basky 2020). With only 16% of Canadian adults actually meeting the 150 min per week PA threshold (Clarke et al. 2019), there is skepticism that inactivity can be explained solely by lack of motivation; thus, consideration of socioeconomic barriers to PA is warranted (Basky 2020). The Guidelines should apply generic messages that take resource- and time-related barriers into account, enhancing Canadians’ perceptions that the Guidelines are achievable. That being said, it is also important to consider the characteristics of population subgroups in formulating context-specific messages (Brawley and Latimer 2007).

Our findings regarding communication channels and messages demonstrate the need for a strategic approach to messaging of integrated movement Guidelines to adults aged 18–64 years and aged 65+ years in Canada. Historically, the PA guidelines for adults and older adults in Canada have been disseminated primarily through threshold messages in mass media campaigns, a non-comprehensive and ineffective strategy (LeBlanc et al. 2015). Further, the threshold messages have been represented in a single document for use by both end-users and stakeholders. Our findings suggest that the Guidelines must be translated into clear messages that convey the recommendations are achievable. These messages — specifically designed for end-users — must then be disseminated through the optimal communication channels we have elucidated here. Thus, for the first time in Canada, a distinction will be made between how to reach Guideline audiences. For stakeholders (i.e., policymakers, health professionals, researchers), a scientific document will be released that delineates evidence-based thresholds for each movement behaviour along with the associated health benefits. For end-users (i.e., members of the general public), public-facing materials will be released in tandem with the scientific document which outline why the recommendations should be met and how to achieve them in a way that is understandable for end-users. The language used in the public-facing materials will be concise, clear, and at a literacy level that is accessible for the majority of Canadian adults aged 18+ years. A similar approach has been used to promote the Physical Activity Guidelines for Americans, 2nd Edition, whereby the release of the 118-page scientific guideline document for health professionals and policymakers (US Department of Health and Human Services 2018) was accompanied by the public-facing “Move Your Way” campaign designed based on end-users’ message preferences (Bevington et al. 2020). The dissemination of comparable public-facing Guideline materials in Canada is even further justified given the novelty of integrated PA, SB, and sleep recommendations for adults aged 18–64 years and 65+ years. To ensure messaging is context-specific, we also recommend the creation of a dissemination toolkit that includes materials that may be modified based on the characteristics of different target audiences. Marketing experts involved in Guideline knowledge translation efforts will work collaboratively with stakeholders to create the public-facing materials based on our study findings.

Limitations

This study has limitations that need to be addressed. The Phase 1 survey did not assess self-reported movement behaviour due to constraints with the length of the survey. However, analyzing the variability of responses according to PA, sedentary, and sleep behaviours might have generated novel findings to inform Guideline messaging. Exploring optimal messaging based on the movement behaviours of a target audience would certainly be an interesting avenue to pursue in future research.

Both surveys were administered online and Canadians without access to internet may be underrepresented. Given that the study assessed the use of both on- and off-line communication channels, it is possible that our results are not indicative of all Canadians’ information-seeking behaviour. Future work to explore optimal messaging of health information should employ off-line data collection to include the 6% of Canadians who do not have at-home internet access (Statistics Canada 2019).

The Phase 1 survey sample was large and representative of the Canadian population. However, despite efforts to gather a diverse sample, individual response rates for certain questions were variable. In particular, for adults aged 65+ years, the response rates to some questions (i.e., communication channels) were too low for the results to be interpreted meaningfully. Refinement to the survey structure may have alleviated this issue. Instead of displaying certain questions and options conditionally (i.e., based on previous responses), the survey could have been structured so that all questions and options were presented to each participant. Providing fewer options (i.e., communication channels) and only
permitting 1 response to be selected may have also improved response rates and generated clearer results.

Participants for the Phase 1 and 2 surveys were recruited independently through different methods, but it is possible that there was cross-over between the participants (i.e., stakeholders who participated in Phase 2 may have participated as an end-user in Phase 1). Had participants’ occupations been documented in Phase 1, we could have excluded any participant classified as a Guideline stakeholder from our Phase 1 analysis. That being said, it is important to note that stakeholders are also potential Guideline end-users, and any who participated in the Phase 1 survey were expected to respond from the perspective of an end-user. Survey instructions and question stems, as well as letters of information/consent, articulated which perspective was being sought in each survey.

Conclusion

In developing the 24-Hour Movement Guidelines for Adults aged 18–64 years and Adults aged 65 years and older, it was necessary to examine optimal messaging strategies to reach Canadians. This study came as a response to continued concerns for the low levels of awareness and uptake of previous guidelines in Canada (LeBlanc et al. 2015; Clarke et al. 2019). Our findings establish a rationale for developing understandable messages that elicit confidence to meet the recommendations and to include these in public-facing Guideline materials disseminated through multiple communication channels.

Conflict of interest statement

The Canadian Society for Exercise Physiology (employer of M.D.) received a grant from the Public Health Agency of Canada. M.C.B. received an honorarium for her role on this project from the Canadian Society for Exercise Physiology.

Acknowledgements

This study was made possible through funding from the Public Health Agency of Canada, the Canadian Society for Exercise Physiology, and Queen’s University. The views of the funding agencies had no influence on the content or conduct of the study. Amy Latimer-Cheung holds a Tier II Canada Research Chair. Guy Faulkner is supported by a Canadian Institutes of Health Research–Public Health Agency of Canada Chair in Applied Public Health. The authors would like to acknowledge members of the Guideline Consensus Panel and Knowledge Translation Advisory Committee for their assistance with recruitment for the Phase 2 survey.

References


Appendix A

Phase 1 End-User Survey

Section 1

1. What is your age in years?
2. What is your gender?
   - Male
   - Female
3. Which of the provinces or territories do you live in?
   - Alberta
   - British Columbia
   - Manitoba
   - New Brunswick
   - Newfoundland & Labrador
   - Nova Scotia
   - Ontario
   - Prince Edward Island
   - Quebec
   - Saskatchewan
   - Nunavut
   - Northwest Territories
   - Yukon
4. Please select the highest level of education you have completed.
   - Elementary/grade school
   - Some high school
   - High school graduate
   - Some college/technical school
   - Completed college/technical school
   - Some university
   - University undergraduate degree
   - Some post-graduate school
   - Post-graduate degree
5. Please choose the option that best applies to you.
   - Employed (30 or more hours per week)
   - Employed (fewer than 30 h per week)
   - Full-time student
   - Homemaker
   - Retired
   - Currently looking for work
   - Not working for medical reasons
   - Other
6. Which of these best describes your marital status?
   - Single, never married
   - Common law
   - Civil partnership
   - Married
   - Separated/divorced
   - Widowed
   - Engaged

7. What are the ethnic or cultural origins of your ancestors? Please select as many as are applicable.
   - British isles (e.g., English, Irish, Scottish)
   - Other race
   - French
   - Other European (e.g., German, Russian, Italian, Norwegian)
   - Aboriginal (e.g., Inuit, Métis, North American Indian)
   - Other North American (e.g., Canadian, American, Newfoundland, Québécois)
   - Caribbean (e.g., Jamaican, Barbadian, Cuban, West Indian)
   - Latin, Central and South American (e.g., Mexican, Argentinian, Guatemalan, Peruvian)
   - African (e.g., South African, Ethiopian, Nigerian, Zimbabwean)
   - Arab/West Asian (e.g., Lebanese, Moroccon, Iranian, Turk)
   - South Asian (e.g., East Indian, Pakistani, Goan, Sri Lankan)
   - Chinese
   - Other East and Southeast Asian (e.g., Filipino, Vietnamese, Korean, Japanese)
   - Oceania (e.g., Australian, New Zealander, Fijian, Samoan)
   - Jewish (non-denominational)
   - Other

8. Pick the range that best describes the total annual income of your household, before taxes.
   - Less than $24,999
   - $25,000 to $34,999
   - $35,000 to $49,999
   - $50,000 to $74,999
   - $75,000 to $99,999
   - $100,000 to $124,999
   - $125,000 or more
   - Undisclosed

Section 2

1. Have you looked for information on the following behaviours in the past month?
   - [COLUMNS]
     - Yes
     - No
   - [ROWS]
     - Physical Activity
     - Sedentary Behaviour
     - Sleep
2. Where did you go to get this information?
   - [COLUMNS]
     - [ROWS]
     - Physician
     - Nurse
     - Kinesiologist
     - Physiotherapist
     - Occupational Therapist
     - Health coach/personal trainer
     - Community health centre
     - Family/friends/Co-workers

Published by NRC Research Press
3. How effective were these sources in helping you to change your physical activity behaviour?

<table>
<thead>
<tr>
<th>[COLUMNS]</th>
<th>[ROWS]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very effective</td>
<td>Physician</td>
</tr>
<tr>
<td>Somewhat effective</td>
<td>Nurse</td>
</tr>
<tr>
<td>Not effective</td>
<td>Kinesiologist</td>
</tr>
</tbody>
</table>

3. How effective were these sources in helping you to change your sedentary behaviour?

<table>
<thead>
<tr>
<th>[COLUMNS]</th>
<th>[ROWS]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very effective</td>
<td>Physician</td>
</tr>
<tr>
<td>Somewhat effective</td>
<td>Nurse</td>
</tr>
<tr>
<td>Not effective</td>
<td>Kinesiologist</td>
</tr>
</tbody>
</table>

3. How effective were these sources in helping you to change your sleep behaviour?

<table>
<thead>
<tr>
<th>[COLUMNS]</th>
<th>[ROWS]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very effective</td>
<td>Physician</td>
</tr>
<tr>
<td>Somewhat effective</td>
<td>Nurse</td>
</tr>
<tr>
<td>Not effective</td>
<td>Kinesiologist</td>
</tr>
</tbody>
</table>

Section 3

Health experts in Canada are developing Canadian 24-Hour Movement Guidelines for Adults (18+ years) to be released in Fall 2020. The Guidelines will highlight the following types of information:

A healthy 24 hours includes:

- 20–30 minutes of moderate-to-vigorous intensity aerobic physical activity, such that there is an accumulation of at least 150 minutes of a variety of aerobic activities per week.
- Muscle and bone strengthening activity using major muscle groups should also be included at least 2 days per week;
- 7–9 hours of good-quality sleep on a regular basis, with consistent bed and wake-up times; and
- Less than 7–9 hours of sitting.

Below you will see several possible taglines that could be used to help increase your confidence to meet these guidelines. Please rank up to 3 taglines that help you feel more confident to meet these guidelines.
Move more, sit less, sleep better
Build your best day
The whole day matters
What’s your best day?
Make the whole day better
How will you make the whole day better?
Move your Way. What’s Your Move?
Sweat more. Sit less. Sleep better.
The best move is your next move.
Every movement counts!
Engage in: at least 150 minutes of moderate-to-vigorous intensity aerobic physical activity per week; at least 2 days of strength-training activity per week; 7–9 hours of good quality sleep per day; and; no more than 7–9 hours of sitting per day.
Engage in: at least 20–30 minutes of moderate-to-vigorous intensity aerobic physical activity per day; at least 2 days of strength-training activity per week; 7–9 hours of good quality sleep per day; and less than 7–9 hours of sitting per day.
None of these

Appendix B
Phase 2 Stakeholder Survey (English)

Section 1
The Canadian Society for Exercise Physiology (CSEP) is the owner, copyright holder, and national organization leading the development of the Canadian 24-Hour Movement Guidelines for Adults and Canadian 24-Hour Movement Guidelines for Older Adults. Queen’s University is conducting this survey on behalf of CSEP. Funding for these Guidelines has been provided by the Public Health Agency of Canada.

Section 2
LETTER OF INFORMATION
Study Title: Examining perceptions and brand approaches for the Canadian 24-Hour Movement Guidelines for Adults and Older Adults
Principal Investigator: Jennifer Tomasono, School of Kinesiology and Health Studies, Queen’s University

After reviewing the evidence, experts have produced draft versions of the Canadian 24-Hour Movement Guidelines for Adults and Older Adults. As a relevant stakeholder in Canada connected with physical activity, sedentary, and/or sleep behaviours, you are being invited to participate in a survey soliciting your opinion on these draft versions of the 24-Hour Movement Guidelines. You will be asked for your feedback and level of agreement with the content of the 24-Hour Movement Guidelines. This information is important for the alignment of strategic efforts in policy, practice, and the promotion of health to Canadian adults and older adults.

There are no direct risks associated with participating in the survey. You may benefit from early exposure to the 24-Hour Movement Guidelines and may become more equipped to promote and implement them. Participation in this survey is voluntary and should take approximately 20 minutes. You do not have to answer any questions you do not want to. You can stop participating at any time without penalty. The survey does not collect information about your name or email address and responses will be presented in group format only. Since the data are anonymous, withdrawal after completion of the survey is not possible. The study team will have access to your study data during and after collection. Queen’s General Research Ethics Board (GREB) may request access to study data to ensure that the researcher(s) have or are meeting their ethical obligations in conducting this research. GREB is bound by confidentiality and will not disclose any personal information. Your data will be stored securely for at least five years as per Queen’s University Policy. After 5 years, your data will be archived. The results of this survey will be shared with parties involved in the development and promotion of the 24-Hour Movement Guidelines for Adults and Older Adults.

If you have any questions about the research, please contact the principal investigator at tomasone@queensu.ca or 613-533-6000 ext. 79193.

If you have any ethics concerns please contact the General Research Ethics Board (GREB) at 1-844-535-2988 (Toll free in North America) or email chair.GREB@queensu.ca.

You have not waived any legal rights by consenting to participate in this study.

Please note that the Guidelines are currently in draft form and stakeholder consultation is being sought. The final versions of the Guidelines will be released October 2020. As a valued and trusted stakeholder, we have shared confidential draft recommendations for your feedback. Please do not share the recommendations. If you have further inquiries, please contact the Guideline development Chair, Dr. Robert Ross, at rossr@queensu.ca

By clicking “Next” to begin the survey, you are consenting to participate.

Thank you for your time!

Section 3
1. What is your age in years?
2. What is your gender?
   ○ Male
   ○ Female
   ○ Other
   ○ Prefer not to specify
3. What are the ethnic or cultural origins of your ancestors? Please select as many as are applicable.
   ○ British Isles (e.g., English, Irish, Scottish)
   ○ Other race
   ○ French
   ○ Other European (e.g., German, Russian, Italian, Norwegian)
   ○ Aboriginal (e.g., Inuit, Métis, North American Indian)
   ○ Other North American (e.g., Canadian, American, Newfoundlander, Québecois)
   ○ Caribbean (e.g., Jamaican, Barbadian, Cuban, West Indian)
   ○ Latin, Central and South American (e.g., Mexican, Argentinian, Guatemalan, Peruvian)
   ○ African (e.g., South African, Ethiopian, Nigerian, Zimbabwean)
   ○ Arab/West Asian (e.g., Lebanese, Moroccan, Iranian, Turk)
   ○ South Asian (e.g., East Indian, Pakistani, Goan, Sri Lankan)
   ○ Chinese
   ○ Other East and Southeast Asian (e.g., Filipino, Vietnamese, Korean, Japanese)
   ○ Oceanica (e.g., Australian, New Zealander, Fijian, Samoan)
   ○ Jewish (non-denominational)
   ○ Other
4. What is your household income?
   ○ Less than $24,999
   ○ $25,000 to $34,999
5. What is the highest level of education you have completed?

- No certificate, diploma or degree
- Secondary (high) school diploma or equivalent
- Apprenticeship or trades certificate or diploma
- College, CEGEP or other non-university certificate or diploma
- University certificate or diploma below bachelor level;
- University certificate, diploma or degree at bachelor level or above: bachelor’s degree; university certificate or diploma above bachelor level; degree in medicine, dentistry, veterinary medicine or optometry; master’s degree; earned doctorate.

6. With what sector(s) do you associate? Select any that apply.

- Sport
- Education
- Recreation
- Care for older adults
- Healthcare
- Public health
- Non-governmental organization
- Research
- Government
- Other, please specify:

7. Are you a member of the Sedentary Behaviour Research Network?

- Yes
- No

8. Where do you primarily work?

- Alberta
- British Columbia
- Manitoba
- New Brunswick
- Newfoundland
- Northwest Territories
- Nova Scotia
- Nunavut
- Ontario
- Prince Edward Island
- Quebec
- Saskatchewan
- Yukon Territory
- Across Canada (i.e., National)
- Outside Canada, please specify:

Section 4

You will now be asked questions about the Canadian 24-Hour Movement Guidelines for Adults and Older Adults. Any differences between the two sets of guidelines will be highlighted.

TITLE: Canadian 24-Hour Movement Guidelines for Adults (age 18–64 years):
An Integration of Physical Activity, Sedentary Behaviour, and Sleep

1. The Titles are clearly stated.

- Strongly Agree
- Somewhat Agree
- Neither Agree Nor Disagree
- Somewhat Disagree
- Strongly Disagree

2. I _____ with how the Titles are stated.

- Strongly Agree
- Somewhat Agree
- Neither Agree Nor Disagree
- Somewhat Disagree
- Strongly Disagree

3. In the box below, please enter any comments you have regarding the Titles.

Section 5

Please note that the purpose of the Preamble is to provide context for the Canadian 24-Hour Movement Guidelines.

PREAMBLE FOR ADULTS

These 24-Hour Movement Guidelines are relevant to adults (aged 18–64 years), irrespective of gender, cultural background, or socio-economic status. These Guidelines may be appropriate for adults who are pregnant or persons living with a disability or a medical condition; these individuals should consider consulting the Get Active Questionnaire, disability/condition-specific recommendations, or a health professional for guidance.

Adults should participate in a range of physical activities (e.g., weight bearing/non-weight bearing, sport and recreation) in a variety of environments (e.g., home/work/community; indoors/outdoors; land/water) and contexts (e.g., leisure, transportation, occupation, household) across all seasons. Adults should limit periods of prolonged sedentary behaviours and should practice healthy sleep hygiene (routines, behaviours, and environments conducive to sleeping well).

Following these 24-Hour Movement Guidelines is associated with a lower risk of mortality, cardiovascular disease, hypertension, type 2 diabetes, several cancers, anxiety, depression, dementia, weight gain, adverse blood lipid profile and improved bone health, cognition, quality of life and physical function. The benefits of following these Guidelines far exceed potential harms.

These 24-Hour Movement Guidelines were informed by the best available evidence, expert consensus, stakeholder consultation, and consideration of values and preferences, applicability, feasibility, and equity. More details on the Guidelines, the background research, their interpretation, guidance on how to achieve them, and recommendations for further research and surveillance are available at https://csepguidelines.ca/.

PREAMBLE FOR OLDER ADULTS

These 24-Hour Movement Guidelines are relevant to older adults (aged 65 years or older), irrespective of gender, cultural background, or socio-economic status. These Guidelines may be appropriate for older adults living with a disability or a medical condition; these individuals should consider consulting the Get Active Questionnaire, disability/condition-specific recommendations, or a health professional for guidance.
condition-specific recommendations, or a health professional for guidance.

Older adults should participate in a range of physical activities (e.g., weight bearing/non-weight bearing, sport and recreation) in a variety of environments (e.g., home/work/community; indoors/outdoors; land/water) and contexts (e.g., leisure, transportation, occupation, household) across all seasons. Older adults should limit periods of prolonged sedentary behaviours and should practice healthy sleep hygiene (routines, behaviours, and environments conducive to sleep well).

Following these 24-Hour Movement Guidelines is associated with a lower risk of mortality, cardiovascular disease, hypertension, type 2 diabetes, several cancers, anxiety, depression, dementia, weight gain, adverse blood lipid profile, falls and fall-related injuries, and improved bone health, cognition, quality of life and physical function. The benefits of following these Guidelines far exceed potential harms.

These 24-Hour Movement Guidelines were informed by the best available evidence, expert consensus, stakeholder consultation, and consideration of values and preferences, applicability, feasibility, and equity. More details on the Guidelines, the background research, their interpretation, applicability, feasibility, and equity. More details on the Guidelines, the background research, their interpretation, applicability, feasibility, and equity. More details on the

Section 6

The drafted Canadian 24-Hour Movement Guidelines for Adults and Older Adults are shown below.

GUIDELINES FOR ADULTS

For health benefits, adults should be physically active each day, minimize sedentary behaviour and achieve sufficient sleep.

A healthy 24-hours includes:

Performing a variety of types and intensities of physical activity, which includes:

- Moderate to vigorous aerobic physical activities such that there is an accumulation of at least 150 minutes per week
- Muscle strengthening activities using major muscle groups at least twice a week
- Several hours of light physical activities, including standing

Limiting sedentary time to 8 hours or less, which includes:

- No more than 3 hours of recreational screen time, and
- Breaking up prolonged sitting as often as possible

Getting 7 to 9 hours of good-quality sleep on a regular basis, with consistent bed and wake-up times.

Replacing sedentary behaviour with additional physical activity and trading light physical activity for more moderate to vigorous physical activity, while preserving sufficient sleep, can provide greater health benefits.

Progressing towards any of the above targets will result in some health benefits.

GUIDELINES FOR OLDER ADULTS

For health benefits, older adults should be physically active each day, minimize sedentary behaviour and achieve sufficient sleep.

A healthy 24-hours includes:

Performing a variety of types and intensities of physical activity, which includes:

- Moderate to vigorous aerobic physical activities such that there is an accumulation of at least 150 minutes per week
- Muscle strengthening activities using major muscle groups at least twice a week
- Several hours of light physical activities, including standing

Limiting sedentary time to 8 hours or less, which includes:

- No more than 3 hours of recreational screen time, and
- Breaking up prolonged sitting as often as possible

Getting 7 to 8 hours of good-quality sleep on a regular basis, with consistent bed and wake-up times

Replacing sedentary behaviour with additional physical activity and trading light physical activity for more moderate to vigorous physical activity, while preserving sufficient sleep, can provide greater health benefits.

Progressing towards any of the above targets will result in some health benefits.

We will ask for feedback on each recommendation in the questions to follow.

PHYSICAL ACTIVITY RECOMMENDATION FOR ADULTS

A healthy 24-hours includes:

Performing a variety of types and intensities of physical activity, which includes:

- Moderate to vigorous aerobic physical activities such that there is an accumulation of at least 150 minutes per week
- Muscle strengthening activities using major muscle groups at least twice a week
- Several hours of light physical activities, including standing

PHYSICAL ACTIVITY RECOMMENDATION FOR OLDER ADULTS

A healthy 24-hours includes:

Performing a variety of types and intensities of physical activity, which includes:
• Moderate to vigorous aerobic physical activities such that there is an accumulation of at least 150 minutes per week
• Muscle strengthening activities using major muscle groups at least twice a week
• Physical Activities that challenge balance
• Several hours of light physical activities, including standing

1. The physical activity recommendations are clearly stated.
   - Strongly Agree
   - Somewhat Agree
   - Neither Agree Nor Disagree
   - Somewhat Disagree
   - Strongly Disagree

2. I _____ with how the physical activity recommendations are stated.
   - Strongly Agree
   - Somewhat Agree
   - Neither Agree Nor Disagree
   - Somewhat Disagree
   - Strongly Disagree

3. In the box below, please enter any comments you have regarding the physical activity recommendations.

SEDENTARY BEHAVIOUR RECOMMENDATION
A healthy 24-hours includes:
Limiting sedentary time to 8 hours or less, which includes:
• No more than 3 hours of recreational screen time, and
• Breaking up prolonged sitting as often as possible

4. The sedentary behaviour recommendation is clearly stated.
   - Strongly Agree
   - Somewhat Agree
   - Neither Agree Nor Disagree
   - Somewhat Disagree
   - Strongly Disagree

5. I _____ with how the sedentary behaviour recommendation is stated.
   - Strongly Agree
   - Somewhat Agree
   - Neither Agree Nor Disagree
   - Somewhat Disagree
   - Strongly Disagree

6. In the box below, please enter any comments you have regarding the sedentary behaviour recommendation.

SLEEP RECOMMENDATION FOR ADULTS
A healthy 24-hours includes:
Getting 7 to 9 hours of good-quality sleep on a regular basis, with consistent bed and wake-up times

7. The sleep recommendations are clearly stated.
   - Strongly Agree
   - Somewhat Agree
   - Neither Agree Nor Disagree
   - Somewhat Disagree
   - Strongly Disagree

8. I _____ with how the sleep recommendations are stated.
   - Strongly Agree
   - Somewhat Agree
   - Neither Agree Nor Disagree
   - Somewhat Disagree
   - Strongly Disagree

9. In the box below, please enter any comments you have regarding the sleep recommendations.

INTEGRATED RECOMMENDATION FOR ADULTS
For health benefits, adults should be physically active each day, minimize sedentary behaviour and achieve sufficient sleep.
Replacing sedentary behaviour with additional physical activity and trading light physical activity for more moderate to vigorous physical activity, while preserving sufficient sleep, can provide greater health benefits.
Progressing towards any of the above targets will result in some health benefits.

INTEGRATED RECOMMENDATION FOR OLDER ADULTS
For health benefits, older adults should be physically active each day, minimize sedentary behaviour and achieve sufficient sleep.
Replacing sedentary behaviour with additional physical activity and trading light physical activity for more moderate to vigorous physical activity, while preserving sufficient sleep, can provide greater health benefits.
Progressing towards any of the above targets will result in some health benefits.

10. The integrated recommendations are clearly stated.
    - Strongly Agree
    - Somewhat Agree
    - Neither Agree Nor Disagree
    - Somewhat Disagree
    - Strongly Disagree

11. I _____ with how the integrated recommendations are stated.
    - Strongly Agree
    - Somewhat Agree
    - Neither Agree Nor Disagree
    - Somewhat Disagree
    - Strongly Disagree

12. In the box below, please enter any comments you have regarding the integrated recommendations.

Section 7
The drafted Canadian 24-Hour Movement Guidelines for Adults and Older Adults are shown below.

GUIDELINES FOR ADULTS
For health benefits, adults should be physically active each day, minimize sedentary behaviour and achieve sufficient sleep.

A healthy 24-hours includes:
Performing a variety of types and intensities of physical activity, which includes:
• Moderate to vigorous aerobic physical activities such that there is an accumulation of at least 150 minutes per week
• Muscle strengthening activities using major muscle groups at least twice a week
• Several hours of light physical activities, including standing

Limiting sedentary time to 8 hours or less, which includes:
• No more than 3 hours of recreational screen time, and
• Breaking up prolonged sitting as often as possible

Getting 7 to 9 hours of good-quality sleep on a regular basis, with consistent bed and wake-up times.
Replacing sedentary behaviour with additional physical activity and trading light physical activity for more moderate to vigorous physical activity, while preserving sufficient sleep, can provide greater health benefits.

Progressing towards any of the above targets will result in some health benefits.

GUIDELINES FOR OLDER ADULTS

For health benefits, older adults should be physically active each day, minimize sedentary behaviour and achieve sufficient sleep.

A healthy 24-hours includes:
Performing a variety of types and intensities of physical activity, which includes
• Moderate to vigorous aerobic physical activities such that there is an accumulation of at least 150 minutes per week
• Muscle strengthening activities using major muscle groups at least twice a week
• Physical Activities that challenge balance
• Several hours of light physical activities, including standing

Limiting sedentary time to 8 hours or less, which includes
• No more than 3 hours of recreational screen time, and
• Breaking up prolonged sitting as often as possible

Getting 7 to 8 hours of good-quality sleep on a regular basis, with consistent bed and wake-up times
Replacing sedentary behaviour with additional physical activity and trading light physical activity for more moderate to vigorous physical activity, while preserving sufficient sleep, can provide greater health benefits.

Progressing towards any of the above targets will result in some health benefits.

We will ask for feedback on each recommendation in the questions to follow.

USING THE CANADIAN 24-HOUR MOVEMENT GUIDELINES (1/2)

1. How important are the 24-Hour Movement Guidelines to you in your professional work?
   ○ Very important
   ○ Important
   ○ Moderately important
   ○ Slightly important
   ○ Not at all important

2. In the box below, please enter any comments you have regarding the previous question.

3. How relevant are the 24-Hour Movement Guidelines to the population you work with?
   ○ Very relevant
   ○ Relevant
   ○ Moderately relevant

4. In the box below, please enter any comments you have regarding the previous question.

5. How often would you use the 24-Hour Movement Guidelines in your professional work?
   ○ Always
   ○ Frequently
   ○ Occasionally
   ○ Seldom
   ○ Never

6. In the box below, please enter any comments you have regarding the previous question.

7. How easy or difficult would you find using the 24-Hour Movement Guidelines?
   ○ Very Easy
   ○ Somewhat Easy
   ○ Neutral
   ○ Less Useful
   ○ Much Less Useful

8. In comparison to separate movement behaviour guidelines, the integrated 24-Hour Movement Guidelines are...
   ○ Much More Useful
   ○ More Useful
   ○ Neutral
   ○ Less Useful
   ○ Much Less Useful

9. In the box below, please enter any comments you have regarding the previous question.

USING THE CANADIAN 24-HOUR MOVEMENT GUIDELINES (2/2)

10. The costs for you or your organization to implement the 24-Hour Movement Guidelines are likely to be small or negligible compared to not using the Guidelines.
   ○ Strongly Agree
   ○ Somewhat Agree
   ○ Neither Agree Nor Disagree
   ○ Somewhat disagree
   ○ Strongly Disagree
   ○ I Don’t Know

11. In the box below, please enter any comments you have regarding the previous question.

12. The benefits of using the 24-Hour Movement Guidelines are likely to outweigh the costs (e.g., time, financial, opportunity, etc.) in your professional work.
   ○ Strongly Agree
   ○ Somewhat Agree
   ○ Neither Agree Nor Disagree
   ○ Somewhat disagree
   ○ Strongly Disagree
   ○ I Don’t Know

13. In the box below, please enter any comments you have regarding the previous question.

14. Following the 24-Hour Movement Guidelines is likely to benefit adult and older adult Canadians irrespective of gender, race, ethnicity, or socioeconomic status.
   ○ Strongly Agree
   ○ Somewhat Agree

○ Neither Agree Nor Disagree
○ Somewhat disagree
○ Strongly Disagree
○ I Don’t Know

15. In the box below, please enter any comments you have regarding the previous question.

16. In your opinion, who are the key intermediaries to implement the 24-Hour Movement Guidelines (e.g., primary care physicians)?

17. In your opinion, what supports do these intermediaries need to implement the 24-Hour Movement Guidelines (e.g., materials, training)?

18. In the box below, please enter any comments you have regarding the 24-Hour Movement Guidelines.

Section 8

1. Below you will see several possible taglines that could be used to help increase Canadians’ confidence to meet the 24-Hour Movement Guidelines. Please rank the taglines in the order you believe will make Canadians feel most confident to meet the 24-Hour Movement Guidelines. (1 = most confident; 6 = least confident).

Move more. Sit less. Sleep better
The whole day matters.
Make the whole day better.
Sweat more. Sit less. Sleep better.
The best move is your next move.
Every movement counts.

2. For the tagline ranked as #1, please explain why you believe it will help make Canadians most confident to meet the guidelines?

Section 9

Thank you for your interest in the Canadian 24-Hour Movement Guidelines for Adults and Older Adults. The recommendations are currently in draft form and stakeholder consultation is being sought. The final versions of the Guidelines will be released in October 2020. As a valued and trusted stakeholder, we have shared confidential draft recommendations for your feedback. Please do not share this information with anyone. If you have further inquiries, please contact the Guideline development Chair, Dr. Robert Ross, at rossr@queensu.ca. Please click “Next” to ensure your responses are recorded.

Phase 2 Stakeholder Survey (French)

Section 1

La Société canadienne de physiologie de l’exercice (SCPE) est la propriétaire et la détenteur des droits d’auteur, ainsi que l’organisme national dirigeant l’élaboration des Directives canadiennes en matière de mouvement sur 24 heures pour les adultes et des Directives canadiennes en matière de mouvement sur 24 heures pour les aînés. L’Université Queen’s réalise cette enquête au nom de la SCPE. Le financement de ces Directives a été fourni par l’Agence de la santé publique du Canada.

Section 2

LETTER D’INFORMATION

Titre de l’étude : Examiner les perceptions et les approches à l’égard de la marque pour les Directives canadiennes en matière de mouvement sur 24 heures pour les adultes et les aînés.
En cliquant sur « Suivant » pour entamer l’enquête, vous consentez à y participer.
Merci pour votre temps!

Section 3
1. Quel âge avez-vous?
2. Quel est votre genre?
3. Quelles sont les origines ethniques ou culturelles de vos ancêtres?
4. Veuillez indiquer la catégorie qui décrit le mieux le revenu annuel total de votre ménage, avant impôts :
5. Quel est le plus haut niveau de scolarité que vous avez atteint?
6. À quel(s) secteur(s) êtes-vous associé(e)? Veuillez sélectionner toutes les réponses applicables.
7. Êtes-vous membre du Réseau de recherche sur le comportement sédentaire?
8. Où travaillez-vous principalement?

Section 4
Nous vous demandons maintenant de répondre à des questions au sujet des Directives canadiennes en matière de mouvement sur 24 heures pour les adultes et les aînés. Toute différence entre les deux Directives est surlignée.
TITRE : Directives canadiennes en matière de mouvement sur 24 heures pour les adultes et les aînés. Toute différence entre les deux Directives est surlignée.
TITRE : Directives canadiennes en matière de mouvement sur 24 heures pour les aînés (âgés de 65 ans et plus) : une approche intégrée regroupant l’activité physique, le comportement sédentaire et le sommeil
TITRE : Directives canadiennes en matière de mouvement sur 24 heures pour les adultes (âgés de 18 à 64 ans) : une approche intégrée regroupant l’activité physique, le comportement sédentaire et le sommeil
1. Les titres sont énoncés clairement.
2. Je suis _____ avec la façon dont les titres sont énoncés.
3. Dans la zone de texte ci-dessous, veuillez indiquer tout commentaire concernant les titres.

Faught et al.
Section 5

Veuillez prendre note que l’objectif du préambule est de fournir du contexte pour les Directives canadiennes en matière de mouvement sur 24 heures.

PRÉAMBULE POUR LES ADULTES

Ces Directives en matière de mouvement sur 24 heures s’appliquent à tous les adultes (âgés de 18 à 64 ans), sans égard au genre, à l’héritage culturel ou au statut socio-économique. Ces directives pourraient convenir aux femmes enceintes ou aux personnes vivant avec un handicap ou un trouble médical. Toutefois, ces personnes devraient envisager de consulter le Questionnaire Menez une vie plus active, des recommandations s’adressant spécifiquement aux personnes vivant avec un handicap ou un trouble médical, ou encore un professionnel de la santé pour obtenir des conseils.

Les adultes devraient participer à une gamme d’activités physiques (p. ex. activités avec ou sans mise en charge, sports et loisirs) dans une variété d’environnements (p. ex. à la maison/au travail/dans la communauté; à l’intérieur/à l’extérieur; sur le sol/dans l’eau) et de contextes (p. ex. loisirs, transport, travail, maison) pendant toutes les saisons. Les adultes devraient limiter les périodes prolongées de comportements sédentaires et adopter une hygiène en matière de sommeil saine (routines, comportements et environnements qui amènent à bien dormir).

Suivre ces Directives en matière de mouvement sur 24 heures est associé à un risque réduit de mortalité, de maladies cardiovasculaires, d’hypertension, de diabète de type 2, de plusieurs cancers, d’anxiété, de dépression, de démence, de gain de poids, de profil des lipides sanguins indésirable, de chutes et de blessures liées à des chutes, et à une amélioration de la santé osseuse, de la cognition, de la qualité de vie et de la fonction physique. Les avantages associés à l’adoption de ces directives surpassent de loin les torts potentiels.

Ces Directives en matière de mouvement sur 24 heures sont basées sur les meilleures données probantes disponibles, un consensus d’experts, des consultations auprès des intervenants, et des facteurs associés aux valeurs et aux préférences, à l’applicabilité, à la faisabilité et à l’équité. Plus de renseignements sur les directives, la recherche ayant mené à leur mise au point et sur leur interprétation, ainsi que des conseils pour les mettre en application et des recommandations sur la recherche et la surveillance sont disponibles à https://scpe.ca/directives/.

1. Les préambules sont énoncés clairement.
   - Fortement en accord
   - Plutôt en accord
   - Ni en accord, ni en désaccord
   - Plutôt en désaccord
   - Fortement en désaccord

2. Je suis ____ avec la façon dont les préambules sont énoncés.
   - Fortement en accord
   - Plutôt en accord
   - Ni en accord, ni en désaccord
   - Plutôt en désaccord
   - Fortement en désaccord

3. J’utiliserais (p. ex. distribuerai) les préambules.
   - Fortement en accord
   - Plutôt en accord
   - Ni en accord, ni en désaccord
   - Plutôt en désaccord
   - Fortement en désaccord

4. Dans la zone de texte ci-dessous, veuillez indiquer tout commentaire concernant les préambules.

Section 6

La version préliminaire des Directives canadiennes en matière de mouvement sur 24 heures pour les adultes et les aînés est présentée ci-dessous.

DIRECTIVES POUR LES AÎNÉS

Ces Directives en matière de mouvement sur 24 heures s’appliquent à tous les aînés (âgés de 65 ans et plus), sans égard au genre, à l’héritage culturel ou au statut socio-économique. Ces directives pourraient convenir aux aînés (x vivant avec un handicap ou un trouble médical, ou encore un professionnel de la santé pour obtenir des conseils.

Les aînés devraient participer à une gamme d’activités physiques (p. ex. activités avec ou sans mise en charge, sports et loisirs) dans une variété d’environnements (p. ex. à la maison/au travail/dans la communauté; à l’intérieur/à l’extérieur; sur le sol/dans l’eau) et de contextes (p. ex. loisirs, transport, travail, maison) pendant toutes les saisons. Les aînés devraient limiter les périodes prolongées de comportements sédentaires et adopter une hygiène en matière de sommeil saine (routines, comportements et environnements qui amènent à bien dormir).

Suivre ces Directives en matière de mouvement sur 24 heures est associé à un risque réduit de mortalité, de maladies cardiovasculaires, d’hypertension, de diabète de type 2, de plusieurs cancers, d’anxiété, de dépression, de démence, de gain de poids, de profil des lipides sanguins indésirable, de chutes et de blessures liées à des chutes, et à une amélioration de la santé osseuse, de la cognition, de la qualité de vie et de la fonction physique. Les avantages associés à l’adoption de ces directives surpassent de loin les torts potentiels.

Ces Directives en matière de mouvement sur 24 heures sont basées sur les meilleures données probantes disponibles, un consensus d’experts, des consultations auprès des intervenants, et des facteurs associés aux valeurs et aux préférences, à l’applicabilité, à la faisabilité et à l’équité. Plus de renseignements sur les directives, la recherche ayant mené à leur mise au point et sur leur interprétation, ainsi que des conseils pour les mettre en application et des recommandations sur la recherche et la surveillance sont disponibles à https://scpe.ca/directives/.

1. Les préambules sont énoncés clairement.
   - Fortement en accord
   - Plutôt en accord
   - Ni en accord, ni en désaccord
   - Plutôt en désaccord
   - Fortement en désaccord

2. Je suis ____ avec la façon dont les préambules sont énoncés.
   - Fortement en accord
   - Plutôt en accord
   - Ni en accord, ni en désaccord
   - Plutôt en désaccord
   - Fortement en désaccord

3. J’utiliserais (p. ex. distribuerai) les préambules.
   - Fortement en accord
   - Plutôt en accord
   - Ni en accord, ni en désaccord
   - Plutôt en désaccord
   - Fortement en désaccord

4. Dans la zone de texte ci-dessous, veuillez indiquer tout commentaire concernant les préambules.
Des activités physiques aérobies d'intensité moyenne à élevée d’une durée cumulative d’au moins 150 minutes par semaine

Des activités pour renforcer les muscles et faisant appel aux groupes musculaires importants au moins deux fois par semaine

Plusieurs heures d’activités physiques d’intensité légère, incluant des périodes en position debout

RECOMMANDATIONS EN MATIÈRE D’ACTIVITÉ PHYSIQUE POUR LES AÎNÉS

Un 24 heures sain comprend :

Une variété de types et d’intensités d’activité physique, ce qui inclut :

Des activités physiques aérobies d’intensité moyenne à élevée d’une durée cumulative d’au moins 150 minutes par semaine

Des activités pour renforcer les muscles et faisant appel aux groupes musculaires importants au moins deux fois par semaine

Des activités qui font appel à l’équilibre

Plusieurs heures d’activités physiques d’intensité légère, incluant des périodes en position debout

Un maximum de 8 heures de sédentarité, ce qui inclut :

Un maximum de 3 heures de temps de loisir devant un écran, et

Une interruption aussi fréquente que possible des périodes prolongées en position assise

De 7 à 8 heures de sommeil de bonne qualité sur une base régulière avec des heures de coucher et de lever régulières

Remplacer les comportements sédentaires par plus d’activité physique, et remplacer l’activité physique de faible intensité par plus d’activité physique d’intensité moyenne à élevée, tout en maintenant une durée de sommeil suffisante, entraînent encore plus de bienfaits pour la santé.

Tout progrès vers l’atteinte de l’une ou l’autre des cibles mentionnées ci-dessus entraînera des bienfaits pour la santé.

DIRECTIVES POUR LES AÎNÉS

Pour obtenir des bienfaits pour la santé, les aînés devraient être physiquement actifs chaque jour, limiter les comportements sédentaires et dormir suffisamment.

Un 24 heures sain comprend :

Une variété de types et d’intensités d’activité physique, ce qui inclut :

Des activités physiques aérobies d’intensité moyenne à élevée d’une durée cumulative d’au moins 150 minutes par semaine

Des activités pour renforcer les muscles et faisant appel aux groupes musculaires importants au moins deux fois par semaine

Des activités physiques qui font appel à l’équilibre

Plusieurs heures d’activités physiques d’intensité légère, incluant des périodes en position debout

Un maximum de 8 heures de sédentarité, ce qui inclut :

Un maximum de 3 heures de temps de loisir devant un écran, et

Une interruption aussi fréquente que possible des périodes prolongées en position assise

De 7 à 8 heures de sommeil de bonne qualité sur une base régulière avec des heures de coucher et de lever régulières

Remplacer les comportements sédentaires par plus d’activité physique, et remplacer l’activité physique de faible intensité par plus d’activité physique d’intensité moyenne à élevée, tout en maintenant une durée de sommeil suffisante, entraînent encore plus de bienfaits pour la santé.

Tout progrès vers l’atteinte de l’une ou l’autre des cibles mentionnées ci-dessus entraînera des bienfaits pour la santé.

Nous aimerions avoir votre rétroaction sur chaque recommandation dans les questions qui suivent.

RECOMMANDATIONS EN MATIÈRE D’ACTIVITÉ PHYSIQUE POUR LES ADULTES

Un 24 heures sain comprend :

Une variété de types et d’intensités d’activité physique, ce qui inclut :

Des activités physiques aérobies d’intensité moyenne à élevée d’une durée cumulative d’au moins 150 minutes par semaine

Des activités pour renforcer les muscles et faisant appel aux groupes musculaires importants au moins deux fois par semaine

Plusieurs heures d’activités physiques d’intensité légère, incluant des périodes en position debout

Un maximum de 8 heures de sédentarité, ce qui inclut :

Un maximum de 3 heures de temps de loisir devant un écran, et

Une interruption aussi fréquente que possible des périodes prolongées en position assise

4. Les recommandations en matière de comportement sédentaire sont énoncées clairement.

O Fortement en accord
O Plutôt en accord
O Ni en accord, ni en désaccord
O Plutôt en désaccord
O Fortement en désaccord

3. Dans la zone de texte ci-dessous, veuillez indiquer tout commentaire concernant les recommandations en matière d’activité physique.

RECOMMANDATIONS EN MATIÈRE DE COMPORTEMENT SÉDENTAIRE

Un 24 heures sain comprend :

Un maximum de 8 heures de sédentarité, ce qui inclut :

Un maximum de 3 heures de temps de loisir devant un écran, et

Une interruption aussi fréquente que possible des périodes prolongées en position assise

5. Je suis _____ avec la façon dont les recommandations en matière de comportement sédentaire sont énoncées.

O Fortement en accord
O Plutôt en accord
O Ni en accord, ni en désaccord
O Plutôt en désaccord
O Fortement en désaccord
6. Dans la zone de texte ci-dessous, veuillez indiquer tout commentaire concernant les recommandations en matière de comportement sédentaire.

**RECOMMANDATIONS EN MATIÈRE DE SOMMEIL POUR LES ADULTES**

Un 24 heures sain comprend :
- De 7 à 9 heures de sommeil de bonne qualité sur une base régulière avec des heures de coucher et de lever régulières

**RECOMMANDATIONS EN MATIÈRE DE SOMMEIL POUR LES AÎNÉS**

Un 24 heures sain comprend :
- De 7 à 8 heures de sommeil de bonne qualité sur une base régulière avec des heures de coucher et de lever régulières

7. Les recommandations en matière de sommeil sont énoncées clairement.

- Fortement en accord
- Plutôt en accord
- Ni en accord, ni en désaccord
- Plutôt en désaccord
- Fortement en désaccord

8. Je suis ____ avec la façon dont les recommandations en matière de sommeil sont énoncées.

- Fortement en accord
- Plutôt en accord
- Ni en accord, ni en désaccord
- Plutôt en désaccord
- Fortement en désaccord

9. Dans la zone de texte ci-dessous, veuillez indiquer tout commentaire concernant les recommandations en matière de sommeil.

**RECOMMANDATION INTÉGRÉE POUR LES ADULTES**

Pour obtenir des bienfaits pour la santé, les adultes devraient être physiquement actifs chaque jour, limiter les comportements sédentaires et dormir suffisamment.

Remplacer les comportements sédentaires par plus d’activité physique, et remplacer l’activité physique de faible intensité par plus d’activité physique d’intensité moyenne à élevée, tout en maintenant une durée de sommeil suffisante, entraînent encore plus de bienfaits pour la santé.

Tout progrès vers l’atteinte de l’une ou l’autre des cibles mentionnées ci-dessus entraînera des bienfaits pour la santé.

**RECOMMANDATION INTÉGRÉE POUR LES AÎNÉS**

Pour obtenir des bienfaits pour la santé, les aînés devraient être physiquement actifs chaque jour, limiter les comportements sédentaires et dormir suffisamment.

Remplacer les comportements sédentaires par plus d’activité physique, et remplacer l’activité physique de faible intensité par plus d’activité physique d’intensité moyenne à élevée, tout en maintenant une durée de sommeil suffisante, entraînent encore plus de bienfaits pour la santé.

Tout progrès vers l’atteinte de l’une ou l’autre des cibles mentionnées ci-dessus entraînera des bienfaits pour la santé.

11. Je suis ____ avec la façon dont la recommandation intégrée en matière de mouvement sur 24 heures pour les adultes et les aînés est présentée ci-dessus.

- Fortement en accord
- Plutôt en accord
- Ni en accord, ni en désaccord
- Plutôt en désaccord
- Fortement en désaccord

12. Dans la zone de texte ci-dessous, veuillez indiquer tout commentaire concernant la recommandation intégrée.

**Section 7**

La version préliminaire des Directives canadiennes en matière de mouvement sur 24 heures pour les adultes et les aînés est présentée ci-dessous.

**DIRECTIVES POUR LES ADULTES**

Pour obtenir des bienfaits pour la santé, les adultes devraient être physiquement actifs chaque jour, limiter les comportements sédentaires et dormir suffisamment.

Un 24 heures sain comprend :

Une variété de types et d’intensités d’activité physique, ce qui inclut :
- Des activités physiques aérobies d’intensité moyenne à élevée d’une durée cumulative d’au moins 150 minutes par semaine
- Des activités pour renforcer les muscles et faisant appel aux groupes musculaires importants au moins deux fois par semaine
- Plusieurs heures d’activités physiques d’intensité légère, incluant des périodes en position debout

Un maximum de 8 heures de sédentarité, ce qui inclut :
- Un maximum de 3 heures de temps de loisir devant un écran, et
- Une interruption aussi fréquente que possible des périodes prolongées en position assise

De 7 à 9 heures de sommeil de bonne qualité sur une base régulière avec des heures de coucher et de lever régulières

Remplacer les comportements sédentaires par plus d’activité physique, et remplacer l’activité physique de faible intensité par plus d’activité physique d’intensité moyenne à élevée, tout en maintenant une durée de sommeil suffisante, entraînent encore plus de bienfaits pour la santé.

Tout progrès vers l’atteinte de l’une ou l’autre des cibles mentionnées ci-dessus entraînera des bienfaits pour la santé.

**DIRECTIVES POUR LES AÎNÉS**

Pour obtenir des bienfaits pour la santé, les aînés devraient être physiquement actifs chaque jour, limiter les comportements sédentaires et dormir suffisamment.

Un 24 heures sain comprend :

Une variété de types et d’intensités d’activité physique, ce qui inclut :
- Des activités physiques aérobies d’intensité moyenne à élevée d’une durée cumulative d’au moins 150 minutes par semaine
- Des activités pour renforcer les muscles et faisant appel aux groupes musculaires importants au moins deux fois par semaine
- Des activités physiques qui font appel à l’équilibre
- Plusieurs heures d’activités physiques d’intensité légère, incluant des périodes en position debout
Un maximum de 8 heures de sédentarité, ce qui inclut:
- Un maximum de 3 heures de temps de loisir devant un écran, et
- Une interruption aussi fréquente que possible des périodes prolongées en position assise.

De 7 à 8 heures de sommeil de bonne qualité sur une base régulière avec des heures de coucher et de lever régulières.

Remplacer les comportements sédentaires par plus d’activité physique, et remplacer l’activité physique de faible intensité par plus d’activité physique d’intensité moyenne à élevée, tout en maintenant une durée de sommeil suffisante, entraînerait encore plus de bienfaits pour la santé.

Tout progrès vers l’atteinte de l’une ou l’autre des cibles mentionnées ci-dessus entraînerait des bienfaits pour la santé.

**UTILISATION DES DIRECTIVES CANADIENNES EN MATIÈRE DE MOUVEMENT SUR 24 HEURES (1/2)**

1. À quel point les Directives canadiennes en matière de mouvement sur 24 heures sont-elles importantes pour vous dans le cadre de votre travail?
   - Très importantes
   - Importantes
   - Modérément importantes
   - Peu importantes
   - Pas importantes du tout

2. Dans la zone de texte ci-dessous, veuillez indiquer tout commentaire concernant la question précédente.

3. À quel point les Directives canadiennes en matière de mouvement sur 24 heures sont-elles pertinentes dans le cadre de votre travail?
   - Très pertinentes
   - Pertinentes
   - Modérément pertinentes
   - Peu pertinentes
   - Pas pertinentes du tout

4. Dans la zone de texte ci-dessous, veuillez indiquer tout commentaire concernant la question précédente.

5. À quelle fréquence utiliseriez-vous les Directives canadiennes en matière de mouvement sur 24 heures dans le cadre de votre travail?
   - Toujours
   - Souvent
   - Occasionnellement
   - Rarement
   - Jamais

6. Dans la zone de texte ci-dessous, veuillez indiquer tout commentaire concernant la question précédente.

7. À quel point serait-il facile ou difficile pour vous d’utiliser les Directives canadiennes en matière de mouvement sur 24 heures?
   - Très facile
   - Assez facile
   - Ni facile ni difficile
   - Assez difficile
   - Très difficile

8. Comparativement aux directives distinctes sur les comportements en matière de mouvements, les Directives canadiennes en matière de mouvement sur 24 heures intégrées sont:
   - Beaucoup plus utiles
   - Plus utiles

9. Dans la zone de texte ci-dessous, veuillez indiquer tout commentaire concernant la question précédente.

**UTILISATION DES DIRECTIVES CANADIENNES EN MATIÈRE DE MOUVEMENT SUR 24 HEURES (2/2)**

10. Les coûts pour vous-même ou votre organisation associés à la mise en œuvre des Directives canadiennes en matière de mouvement sur 24 heures sont susceptibles d’être faibles ou négligeables comparativement à une absence d’utilisation des Directives.
   - Fortement en accord
   - Plutôt en accord
   - Ni en accord, ni en désaccord
   - Plutôt en désaccord
   - Fortement en désaccord
   - Je ne sais pas

11. Dans la zone de texte ci-dessous, veuillez indiquer tout commentaire concernant la question précédente.

12. Les avantages associés à l’utilisation des Directives canadiennes en matière de mouvement sur 24 heures sont susceptibles de l’emporter sur les coûts (p. ex. temps, finances, possibilités, etc.) dans le cadre de votre travail.
   - Fortement en accord
   - Plutôt en accord
   - Ni en accord, ni en désaccord
   - Plutôt en désaccord
   - Fortement en désaccord
   - Je ne sais pas

13. Dans la zone de texte ci-dessous, veuillez indiquer tout commentaire concernant la question précédente.

14. L’adoption des Directives en matière de mouvement sur 24 heures est susceptible d’entraîner des bienfaits pour les adultes et les aînés canadiens sans égard au genre, à la race, à l’origine ethnique ou au statut socioéconomique.
   - Fortement en accord
   - Plutôt en accord
   - Ni en accord, ni en désaccord
   - Plutôt en désaccord
   - Fortement en désaccord
   - Je ne sais pas

15. Dans la zone de texte ci-dessous, veuillez indiquer tout commentaire concernant la question précédente.

16. À votre avis, qui seraient les intermédiaires clés pour assurer la mise en œuvre des Directives canadiennes en matière de mouvement sur 24 heures (p. ex. les médecins de soins primaires)?

17. À votre avis, de quel type de soutien ces intermédiaires auraient-ils besoin pour assurer la mise en œuvre des Directives canadiennes en matière de mouvement sur 24 heures (p. ex., ressources, formation)?

18. Dans la zone de texte ci-dessous, veuillez indiquer tout autre commentaire concernant les Directives canadiennes en matière de mouvement sur 24 heures.

**Section 8**

1. Vous trouverez ci-dessous plusieurs slogans qui pourraient être utilisés pour accroître la confiance des Canadiens à l’égard des Directives canadiennes en matière de mouvement sur 24 heures. Veuillez classer les slogans dans l’ordre dans lequel, selon vous, les...
Canadiens se sentiront le plus à l’aise pour respecter les Directives canadiennes en matière de mouvement sur 24 heures (1 = le plus confiant; 6 = le moins confiant).

Bougez plus. Passez moins de temps en position assise. Dormez mieux.

Envisagez la journée dans son ensemble
Améliorez la journée, du matin au soir
Transpirez plus. Passez moins de temps en position assise. Dormez mieux.

La meilleure façon d’améliorer la journée, c’est de bouger.

Chaque mouvement compte!

2. Vous pouvez proposer un nouveau slogan dans la zone de texte ci-dessous, ou vous pouvez reformuler l’un des slogans ci-dessus.
3. Pour le slogan que vous avez classé au premier rang, veuillez expliquer pourquoi vous croyez que cela aidera les Canadiens à se sentir le plus à l’aise pour respecter les lignes directrices?

Section 9


Veuillez cliquer sur « Suivant » pour vous assurer que vos réponses sont enregistrées.