

Research Letter

Adaptation of travel medicine practitioners to the COVID-19 pandemic: a cross-sectional survey of ISTM members

Rebecca W. Acosta, RN, MPH¹, Jenny T. Visser, MBChB², Lin H. Chen^{3,4}, MD^{3,4}, Peter A. Leggat, MD, PhD^{5,6}, and Gerard T. Flaherty, MD, PhD^{6,7,*}

¹Traveler's Medical Service of New York, New York, NY, USA, ²Wellington School of Medicine, Wellington, New Zealand, ³Division of Infectious Diseases and Travel Medicine, Mount Auburn Hospital, Cambridge, MA, USA, ⁴Harvard Medical School, Boston, MA, USA, ⁵College of Public Health, Medical and Veterinary Sciences, James Cook University, Townsville, Australia, ⁶School of Medicine, National University of Ireland Galway, Galway, Ireland and ⁷School of Medicine, International Medical University, Kuala Lumpur, Malaysia

*To whom correspondence should be addressed. School of Medicine, National University of Ireland Galway, Galway, Ireland. Tel.: +353-91-495469; Email: gerard.flaherty@nuigalway.ie

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The global pandemic of coronavirus disease 2019 (COVID-19) has severely compromised international travel and the practice of travel medicine. Uncertainty surrounds new procedures for travel and high levels of public anxiety around travelling are evident, especially with the emergence of further COVID-19 variants.^{1,2} Although there have been some insightful reflections in the recent literature,^{3–5} the impact on and the response of the travel medicine community to this pandemic have not been formally evaluated. The International Society of Travel Medicine (ISTM) represents the largest group of travel healthcare professionals. Our study aimed to evaluate the attitudes and adaptations of current ISTM members in relation to the disruption caused by the COVID-19 pandemic. The specific objectives of the study were to ascertain the extent to which members' clinical practice has been affected by the pandemic and inform the Society's strategic planning for upcoming activities and member engagement during the pandemic and early post-pandemic period.

This cross-sectional study involved the electronic distribution via the ISTM secretariat of an anonymous 27-item questionnaire created on Survey Monkey™, comprising a mixture of multiple-choice, ranked and free text responses. The questionnaire was developed and piloted in consultation with the ISTM Leadership Council, which includes the chairpersons of its committees, professional groups and interest groups. The ISTM membership received fortnightly invitations to participate. The survey closed after 2 months (April–May 2021) and the results were downloaded to a Microsoft Excel (2016) database, which was used to descriptively analyse the aggregated data, using frequencies and

percentages. Institutional review board approval was received from the clinical research ethics committee of Galway University Hospitals (C.A. 2584).

A total of 227 (10.9%) of the 2093 current ISTM members responded to the survey. The majority of respondents were physicians (63.8%, $n = 118$), followed by nurses (15.7%, $n = 29$) and pharmacists (8.1%, $n = 15$). A majority of respondents were based in North America (53.8%, $n = 118$), Europe (17.8%, $n = 33$) and Oceania (8.7%, $n = 16$). The respondents closely reflected the demographics of the wider membership base. The principal affiliations of most respondents were academic institutions (23.8%, $n = 44$), private travel clinics (22.2%, $n = 41$), general medical practices (22.2%, $n = 42$) and hospitals (9.2%, $n = 17$). The majority of respondents (72.6%, $n = 135$) had been ISTM members for at least 6 years. More than one-half (58.2%, $n = 107$) had earned the ISTM Certificate in Travel Health™ credential.

Although most respondents (77.5%, $n = 176$) were actively engaged in travel medicine throughout the pandemic, they had experienced a substantial reduction in the volume of their travel clinical practice, with 70.2% ($n = 106$) reporting that travel medicine now comprised <25% of their practice. A minority (18.4%, $n = 34$) had pivoted to other areas of clinical activity, 13% ($n = 24$) had been redeployed to other areas of healthcare, whereas 1.1% ($n = 2$) opted to leave travel medicine practice. The most common COVID-related clinical activities in this cohort of ISTM members were testing and screening for COVID-19 (55.7%, $n = 103$), providing COVID-19 vaccine information

Table 1. Thematic summary of qualitative data arising from ISTM member survey

Theme	Representative quotations
Concern about expansion of membership beyond traditional categories	“I would be concerned about the influence of commercial interests in the medical community.”
Adaptation to virtual educational event delivery	<p>“Consider those members that can understand English but are not be comfortable to use it speaking and that is a barrier to live events.”</p> <p>“I miss the in person conference . . .”</p> <p>“When I have attended live virtual info sessions, the question/answer times are far too short.”</p> <p>“Please consider a virtual CTH exam again.”</p> <p>“The problem with virtual conferences is that many employers still expect participants (ie their employees) to continue to do their jobs whilst ‘attending’ the conference – As a result, although attendance is cheaper (now flights and accommodation etc), you get less out of the conference.”</p>
Practical difficulties with preparing for or renewing the ISTM CTH credentia	<p>“The (CTH) renewal criteria are cumbersome with unreasonable expectations. Please consider revising the renewal criteria especially in light of the current pandemic.”</p> <p>“I would like the Society to have some way of having access to previous CTH tests so that we can train our knowledge. It is especially important for countries where the native language is not English. Being able to take the exam online is also very important because it reduces costs.”</p>
Response of ISTM to COVID-19 pandemic	<p>“It is probably too hard to update or collate as rules change from day to day in each country, but travel rules for each country?”</p> <p>“As an MD, I find ISTM a great resource and guidance when counseling patients or having challenging cases.”</p> <p>“I think ISTM has pivoted well to focus on COVID during the pandemic.”</p> <p>“The society does not appear to have been involved in the most critical aspects of the response, development of vaccine certification.”</p> <p>“My travel business has started growing now that more people are vaccinated.”</p>

CTH: certificate in travel health.

(53%, $n = 98$) and administering COVID-19 vaccines (42.7%, $n = 79$). Over 90% (92.93%, $n = 171$) of respondents had already received or planned to receive a COVID-19 vaccine and 91.35% ($n = 169$) would encourage their patients to be vaccinated against the disease. The majority of respondents were either likely (66.7%, $n = 124$) or somewhat likely (20.4%, $n = 38$) to practise travel medicine in a post-pandemic setting.

The majority (96.8%, $n = 180$) indicated that they intended to renew their ISTM membership. The most commonly reported motivation for joining ISTM (95.7%, $n = 176$) was to become part of a community of likeminded professionals. The majority (60%, $n = 111$) expressed a wish to become involved in travel health research. There was a very high level of satisfaction with the educational services provided by ISTM. The COVID-19-related ISTM resources, which were deemed most useful were webinars (54.1%, $n = 99$), *Journal of Travel Medicine* collections (47%, $n = 86$) and *TravelMed* listserv discussion posts (42.7%, $n = 78$). The preferred mode of delivery of educational material was the in-person medical conference (94%, $n = 172$), followed by web-based journals or e-books (90.7%, $n = 166$) and webinars (88%, $n = 161$). The majority (88.1%, $n = 162$) of respondents expressed a desire to learn more about COVID-19 and travel, whereas 65.4% ($n = 121$) reported that they would like to learn more about the use of social media in travel medicine.

Nearly two-thirds of respondents (65.4%, $n = 119$) expressed an interest in participating in meet-the-expert sessions; 64.7% ($n = 119$) were interested in intermittent access to a senior practitioner for clinical advice; whereas 53.6% ($n = 98$) stated that they would like to participate in an informal question and answer panel. Only 35.5% ($n = 65$) of respondents were interested in a mentoring program. Respondents were largely positive about the possibility of ISTM expanding its membership options to include non-traditional members, with two-thirds being very open (45.4%, $n = 84$) or somewhat open (21.6%, $n = 40$) to the proposal. Pharmacists and members from under-represented geographic regions had a more favourable response to the expansion of ISTM membership beyond its traditional professional categories. Thirty-three free text responses were received, which were analysed independently by three researchers (RWA, JTV and GTF). Qualitative data are summarized thematically in Table 1.

As the number of international travellers fell dramatically in response to the COVID-19 pandemic, the global travel and tourism industry suffered significant losses. Given the transmission characteristics of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and its cross-border spread,⁶ there has been an intense focus in the medical literature on the safety of air travel in the transmission of SARS-CoV-2.⁷ The counselling of travellers about prevention of COVID-19 and entry requirements

to cross international borders have been routinely integrated into pre-travel consultations.⁸ Screening for infection with or immunity against SARS-CoV-2 has now become an additional clinical service offered by many travel clinics.⁹

Our cross-sectional study demonstrates that the majority of survey respondents remain engaged with travel medicine, while adapting to COVID-related activities, including the rollout of their national COVID-19 vaccination programs and providing COVID testing and clinical services. In addition, the seventeenth Conference of the ISTM (CISTM17) successfully pivoted to an immersive virtual platform, which was very well attended by both members and non-members.¹⁰ Although in-person conferences are the preferred educational medium for most members, there is an appreciation for the need and flexibility of digital educational events and resources, especially webinars and social media, to continue to be part of the offering, even in a post-pandemic era. Novel learning activities that provide opportunities for closer interaction with travel medicine experts also appear to be highly valued.

The challenges of transforming to a more agile organization, capable of responding more effectively to its members' learning needs by applying innovative digital technology while preserving the cherished in-person contact between members are reflected in the respondents' free text comments. There is a need for suitably designed qualitative studies to probe these and other member concerns more deeply, however. We also advocate that research into ISTM members' views about the future of travel medicine, emerging international travel patterns, the role and applications of technology such as teleconsultations in travel medicine practice and how the pandemic has uniquely affected special groups of travellers and influenced travel hygiene awareness, be prioritized. Longitudinal follow-up member surveys may allow a clearer picture to emerge of the full extent to which COVID-19 has affected travel medicine practice and activity as we enter a new phase of the pandemic.

This study was limited by its response rate, which may have been related to its administration at a time of heightened global activity, with the spread of the delta variant of COVID-19 and members' shift of focus to pandemic response and other professional activities during a time of significant decrease in international travel. The professional and geographic distribution of respondents closely matches that of the ISTM as a whole, however. It is possible that some ISTM members who are not clinically active or who are retired from clinical practice did not complete the questionnaire. ISTM members who had not renewed their membership during the pandemic were also not likely to have been captured by this study. Although we cannot exclude volunteer bias, we are satisfied that the survey provides useful insights into the prevailing views and experiences of a cohort of experienced travel medicine providers and will help to inform society-level activities and research priorities as we continue to examine the impact of the pandemic on travel health practice and safe and healthy international travel.

Authors' contributions

All authors were involved in conception of the study. RWA, JTV and GTF were responsible for study design and data collection. RWA and GTF led on data analysis and interpretation. GTF prepared the first draft of the manuscript, which was edited by each author for significant intellectual content. All authors read and approved the final version of the manuscript.

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Conflict of interest

The authors have no conflicts of interest to declare.

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