

An Adaptation of the RAND/UCLA Modified Delphi Panel Method in the Time of COVID-19

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Background & Objective

The RAND/UCLA modified Delphi panel method is a formal group process that systematically and quantitatively combines expert opinion and evidence to arrive at consensus, which traditionally includes an in-person meeting.

Experts (physicians, advocates) meet in person at a panel meeting to discuss results of a first-round survey before repeating the survey. The COVID-19 pandemic made such meetings impossible.

We examined the impact on achieving consensus when moving from in-person to virtual panel meetings.

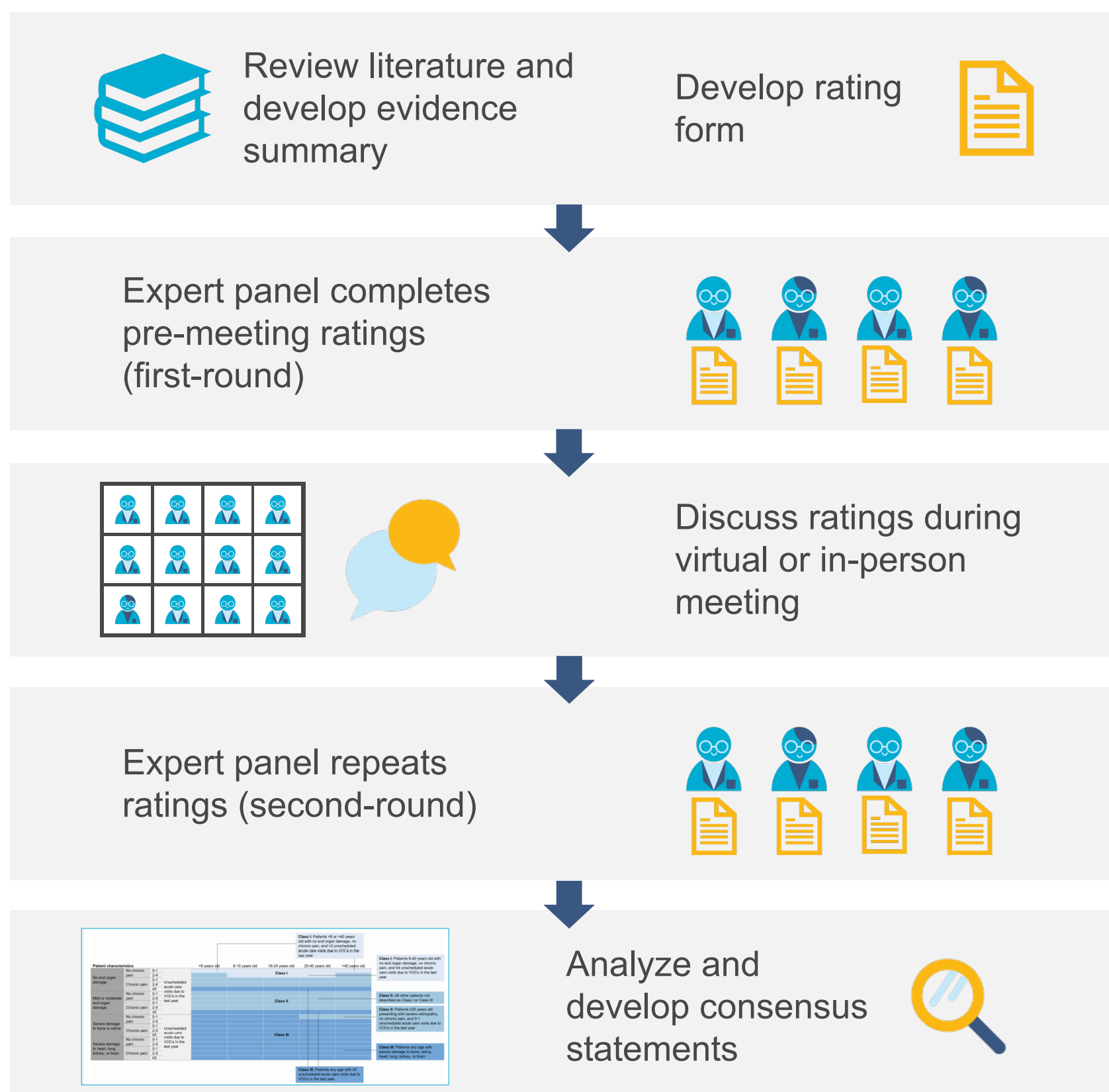
Methods

The RAND/UCLA modified Delphi panel process is illustrated in Figure 1.

We conducted 5 virtual panels over 13 months and compared them to 4 pre-pandemic, in-person panels.

- We report the number of panelists, items rated, meeting duration, and percent disagreement in first- and second-round surveys.

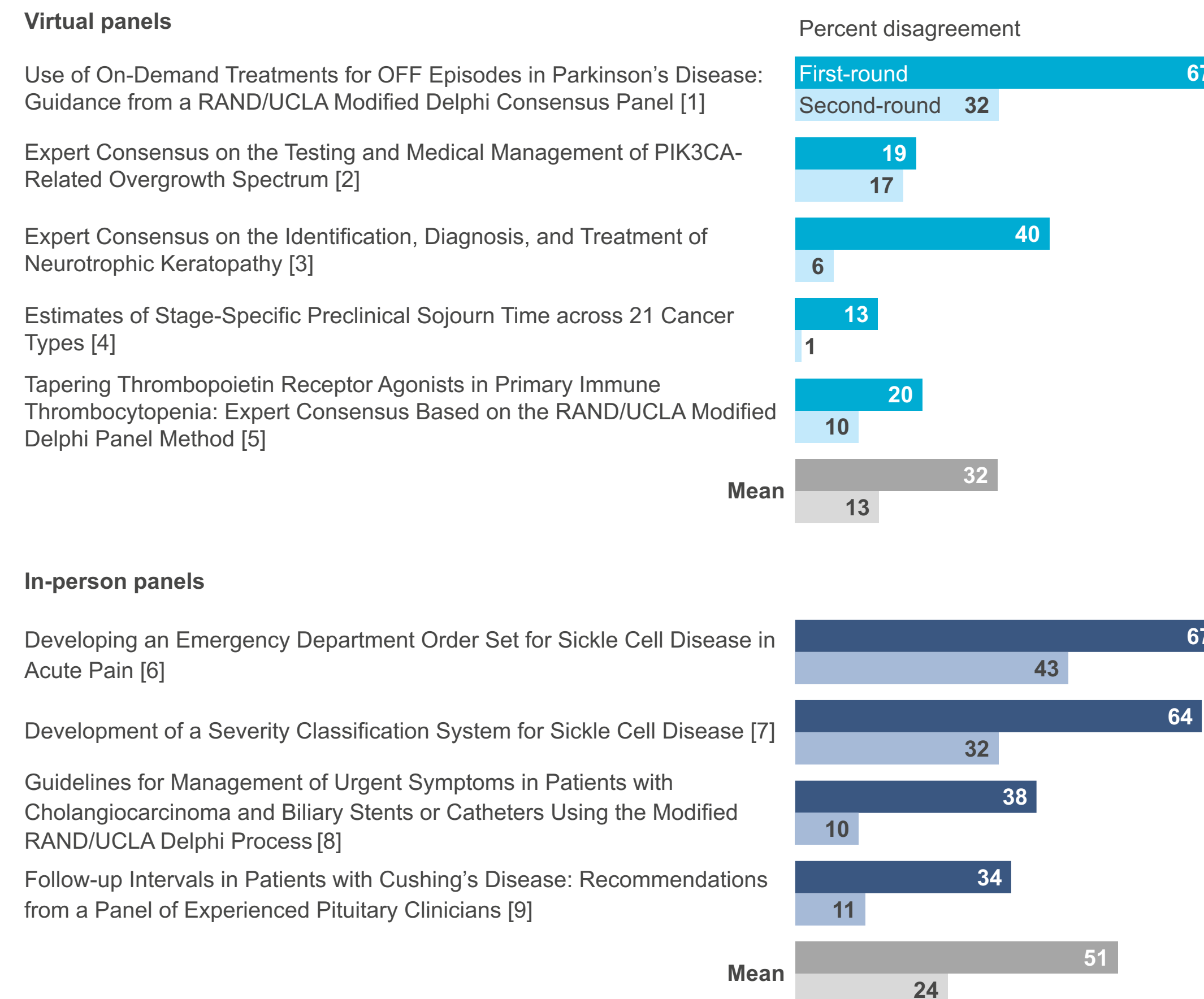
Figure 1. The RAND/UCLA Modified Delphi Panel Process



Results

- Both the in-person and virtual panels included a mean of 11 panelists (Table 1).
- Panelists joined virtual meetings for 6-7 hours across 2-4-hour sessions. In-person meetings lasted 6-9 hours plus up to 10 hours of travel.
- Panelists rated a mean of 488 and 453 items in the virtual and in-person panels, respectively.
- Disagreement was higher in first-round surveys (range 13-67% virtual, 34-67% in-person) than in second-round surveys (range 1-32% virtual, 10-43% in-person) (Figure 2). Mean decreases in disagreement were 19% (virtual) and 27% (in-person).

Figure 2. Percent Disagreement from First-round to Second-round Ratings



References

[1] Isaacson SI, Achari M, Bhideyasiri R, et al. Use of on-demand treatments for OFF episodes in Parkinson's Disease: Guidance from a RAND/UCLA modified Delphi consensus panel. Presented at the 2022 Academy of Managed Care Pharmacy (AMCP) Annual Meeting; March 2022.
 [2] Gibbs SN, Broder MS, Adams DM, et al. Expert consensus on the testing and medical management of PIK3CA-Related Overgrowth Spectrum. Presented at the 2021 CLOVES Syndrome Community International Scientific Meeting for PIK3CA Related Conditions; October 2021.
 [3] Dana R, Farid M, Gupta PK, et al. Expert consensus on the identification, diagnosis, and treatment of neurotrophic keratopathy. BMC Ophthalmol. 2021;21(1):327. doi:10.1186/s12886-021-02092-1
 [4] Broder MS, Ailawadhi S, Beltran H, et al. Estimates of stage-specific preclinical sojourn time across 21 cancer types. Presented at the 2021 American Society of Clinical Oncology (ASCO) Annual Meeting; May 2021.

Table 1. Virtual versus In-Person Delphi Panel Characteristics

Project Title	Number of Panelists	Length of Meeting	Number of Items Rated
Virtual panels			
Use of On-Demand Treatments for OFF Episodes in Parkinson's Disease: Guidance from a RAND/UCLA Modified Delphi Consensus Panel [1]	12 (5 female, 7 male)	7 hours	432
Expert Consensus on the Testing and Medical Management of PIK3CA-Related Overgrowth Spectrum [2]	13 (7 female, 6 male)	7 hours	217 (first-round), 115 (second-round) ^a
Expert Consensus on the Identification, Diagnosis, and Treatment of Neurotrophic Keratopathy [3]	11 (4 female, 7 male)	7 hours	735
Estimates of Stage-Specific Preclinical Sojourn Time across 21 Cancer Types [4]	10 (4 female, 6 male)	6 hours	624
Tapering Thrombopoietin Receptor Agonists in Primary Immune Thrombocytopenia: Expert Consensus Based on the RAND/UCLA Modified Delphi Panel Method [5]	10 (4 female, 6 male)	6 hours	432
Mean	11 (5 female, 6 male)	6.5 hours^b	488
In-person panels			
Developing an Emergency Department Order Set for Sickle Cell Disease in Acute Pain [6]	10 (9 female, 1 male)	1-2 days (9 hours)	606
Development of a Severity Classification System for Sickle Cell Disease [7]	10 (6 female, 4 male)	1-2 days (9 hours)	640
Guidelines for Management of Urgent Symptoms in Patients with Cholangiocarcinoma and Biliary Stents or Catheters Using the Modified RAND/UCLA Delphi Process [8]	15 (3 female, 12 male)	1 day (6 hours)	480 (first-round), 288 (second-round) ^a
Follow-up Intervals in Patients with Cushing's Disease: Recommendations from a Panel of Experienced Pituitary Clinicians [9]	11 (6 female, 5 male)	1 day (6 hours)	85 (first-round), 79 (second-round) ^a
Mean	11 (6 female, 6 male)	7.5 hours plus up to 10 hours of travel^c	453

^aA change in number of items represent expert-suggested alterations to the survey after the panel discussion.
^bTime spent logged into the virtual meeting split across 2-4-hour sessions.
^cPanelists typically travel to the meeting location the evening before the meeting and spend a full day (with breaks) in person at the meeting.

Conclusions

Virtual panels

- Maintained many aspects of the original panel method (e.g., review of existing evidence, number of panelists, number of survey items).
- Found similar decreases in disagreement between first- and second-round surveys.
- Engaged a diverse group of experts, including those with busy clinic schedules who may not have traveled to an in-person meeting.
- Unable to recreate the social interactions that built rapport among panelists during in-person meetings.
- Completed panel discussions in less time.

Transitioning from in-person to virtual meetings was not without challenges, but there were also unexpected advantages. This virtual Delphi panel method can be an effective and efficient alternative for researchers and clinicians.