

Challenges and Opportunities of a Virtual Nephrology Meeting: The ISN World Congress of Nephrology 2021



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The coronavirus disease 2019 (COVID-19) pandemic forced a dramatic reduction in international travel and had a significant impact on the conduct of medical conferences. After cancelling the World Congress of Nephrology (WCN) 2020, the ISN hosted WCN 2021

(WCN21) for the first time on a virtual platform. We reflect on the several challenges and opportunities of the virtual conference and consider the complementary role of social media (SoMe) coverage in the conference.

The Virtual WCN21

The ISN conducted the virtual WCN21 from April 15, 2021 to 19, 2021. The virtual platform for the conference was chosen after a careful review to support aspects of the original in-person format, such as pre-congress

courses, plenary sessions, symposia, oral research presentations, and late-breaking clinical trials, including virtual e-poster sessions, industry exhibitions, and networking areas. The portal worked well on both the desktop and the mobile platforms for ease of access.

Besides the obvious advantages of virtual WCN21, such as delegate safety, reduced travel expenditure, time, and carbon footprint,^{1,2} wider accessibility, and convenience of access, it allowed for the inclusion of many speakers ($n = 241$) from a large number of countries ($n = 45$) despite a lesser number of sessions ($n = 86$ in WCN21 vs. 158 in WCN 2019). WCN21 also had more delegates compared with WCN 2019 ($n = 3918$ vs. 3580 participants) with a 29% increase in the participating countries ($n = 139$ vs. 107), from a wider range of regions and time zones. Geographic distribution of participants in WCN21 Canada versus WCN 2019 Australia was as follows, respectively: Western Pacific 22% versus 61%; North and Central America 22% versus 11%; Europe 19% versus 11%, and other regions such as South Asia, South East Asia, North Asia, South America & Caribbean, and Middle East 32% versus <9% (Figure 1). The wider reach of the virtual WCN21 extending to lower-income regions supported the commitment of ISN to equitable access.

The challenges of the virtual conference included limited discussions and collaborations, reduction in interactions and engagement, lack of undivided attention, time zone limitations on global live participation, and loss of conference revenue to the professional society. Availability

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Registration/Country Wise Distribution of WCN'19 (in-person) and WCN'21 (virtual)

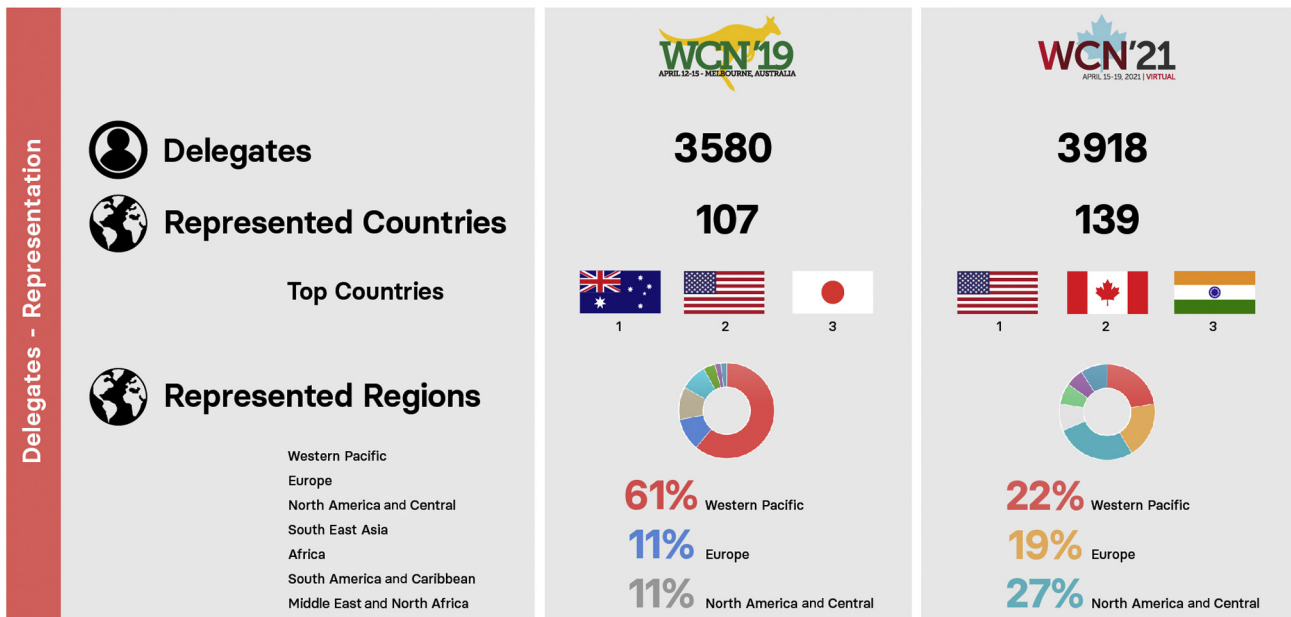


Figure 1. Registration and country/region wise distribution of the registrants of virtual WCN'21 and live WCN'19. WCN, World Congress of Nephrology; WCN'19, WCN 2019; WCN'21, WCN 2021.

of conference sessions on the online ISN Academy platform for future viewing by registered attendees of different time zones, at their convenience, was useful. The additional novel content including time zone-specific “Raising-The-Curtain” sessions, poster talks, podcasts, visual abstracts (VAs), online quizzes, and comprehensive SoMe coverage by the WCN21 SoMe team complemented the conference and sought to offset some challenges.

SoMe Engagement During WCN21

The @ISNeducation SoMe Team, an integral component of the ISN Education Working Group,³ provides comprehensive coverage of congress lectures and presentations since 2017. WCN21 was widely covered in SoMe platforms, including Twitter, Facebook, Instagram, and LinkedIn, and shared by YouTube and WhatsApp that provided an

alternate avenue for user engagement.

Despite the perception that the virtual nature of the conference may reduce its relevance, SoMe coverage of WCN21 sought to enhance the conference content with several strategies. The SoMe coverage on Twitter is measured variably with the number of tweets and impressions and engagements. Impressions on Twitter are the cumulative number of times the post has been seen—including the number of times it appears in the timeline of followers, or the search, or as a result of someone “liking” the Tweet. Besides impressions, engagement metrics, such as the number of “likes,” retweets, clicks to expand or view the media content or links, and replies to the tweet, provides more meaningful metrics of reach.

During the preconference and congress period (April 12, 2021–19, 2021) WCN21 received >13,000 tweets, with 75% carrying media content, accruing a

total of 27.8 million impressions. The daily average was 2300 tweets and 4.9 million impressions with 2900 tweets/d at its peak. Mobile phones were predominant devices for Twitter access (69%).

Despite having 54% lesser sessions in WCN21 ($n = 86$ vs. 158 WCN 2019), there was a robust SoMe engagement, with >77% retweets and 7.6% receiving replies (Figure 2). Most users (77%) participated with 1 to 3 tweets with 12% composing ≥ 10 tweets. The low rate of replies could be attributed to the virtual nature of the conference competing for attention and interaction. Redesigning SoMe coverage with interactive content use such as quizzes, debates, and open questions seeking opinions could help improve engagement.

As the virtual conference activities occurred mostly at 4:30 PM to 8:30 PM Eastern Daylight Time, most WCN21 Twitter users were from compatible time zones of North America, the United Kingdom, and

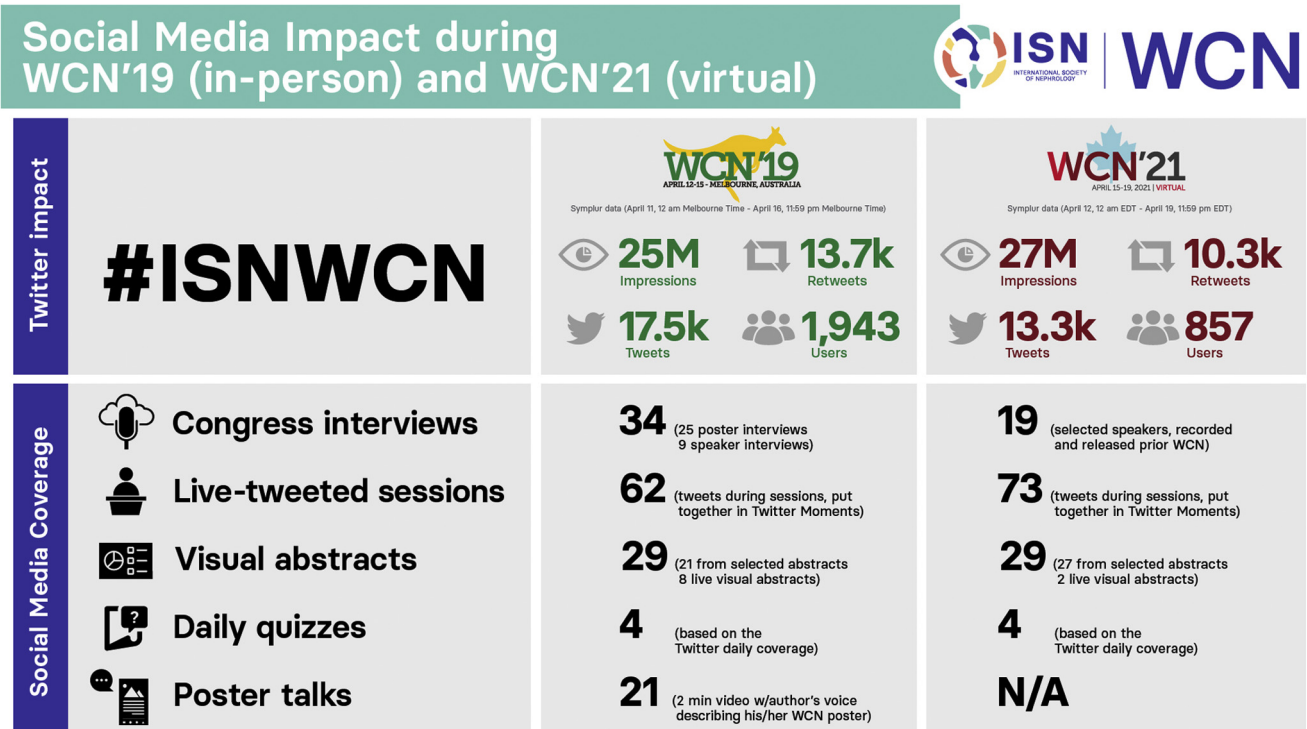


Figure 2. Social media coverage and Twitter impact in WCN'21 in comparison to WCN'19. WCN, World Congress of Nephrology; WCN'19, WCN 2019; WCN'21, WCN 2021.

India. The Twitter engagement was the least from Africa, led by users from Nigeria and Egypt.

Precongress Interviews

A total of 15 precongress interviews with selected speakers of WCN21 were conducted from 8 to 3 weeks before the conference and released as video snippets through the ISN Youtube channel. Shared by SoMe, the interviews garnered 114,596 impressions, 9371 media views on Twitter; 3175 impressions, 1587 media views on LinkedIn; 2397 reaches, 740 video views on Instagram, and 6501 views on Facebook. The mean duration of the interviews was 9:20 (3:43–21:16) minutes, whereas the viewer attention span lasted only 3:41 minutes. For optimal future use of this modality, shortening the duration and re-engaging users at 3 minutes would be useful.

Raising the Curtain Sessions

Raising-the-curtain sessions, organized in collaboration with ISN

collective member societies of the 6 regional boards of ISN (Oceania and South Asia, North and East Asia, East and Central Europe, Western Europe, Africa, and Latin America), to discuss common global challenges and region-specific issues were scheduled at the beginning of the WCN21 with free-of-charge preregistration. These sessions popularized WCN21 and engaged the global nephrology audience. The most viewed session was by the Pakistan Society of Nephrology and the Nepalese Society of Nephrology, discussing challenges in transplantation and dialysis in the South Asia region.

Poster Talks

There were 890 abstracts submitted to the virtual WCN21. Selected

posters were chosen for “poster talks,” an audiovisual description of the poster content, simulating a live presentation. The poster talks were shared widely on SoMe platforms. The most accessed poster talk was on “The revised KDIGO clinical practice guidelines on glomerular diseases part-2.”

Visual Abstracts

As in WCN 2019,⁴ selected posters were made into VAs, readily shareable through SoMe. WCN21 featured 27 precreated VAs (made before the conference) and 2 live VAs (made in real-time during the session), published on the congress platform and Twitter, garnering a total of 52,348 impressions, 270 retweets, and 2365 total engagements (average of 1805

Table 1. Data of the 4 quizzes during WCN 2021 (as of July 28, 2021)

Parameters	Quiz 1	Quiz 2	Quiz 3	Quiz 4
Page visits (<i>n</i> = 2755)	765	516	424	570
Completed quiz attempts (<i>n</i> = 1253)	403	290	245	315
Completed quiz attempts after conference days (<i>n</i> = 713)	243	150	119	201
Score (median, interquartile range) maximum score = 10	2 (0–5)	3 (1–6)	5 (1–7)	3 (1–5)

WCN, World Congress of Nephrology.

impressions, 81.5 engagements, and a median of 60 likes per tweet). The live VAs generated more impressions (3417 vs. 1686) and engagements (181 vs. 74) compared with precreated VAs. The most accessed VA was on “The Changing Dynamics of Nephrology Online Education in 2020” (<https://twitter.com/ISNWCN/status/1383124875926069248?s=20>) (pre-created VA with 271 engagements, 34 likes, 68 expanded views, and 21 retweets).

Daily Quizzes

Tweets with the scientific content of WCN21 were packaged into short interactive online quizzes on the <https://outgrow.co/> platform and released at the end of each day of the congress. Each quiz was designed as an untimed activity of 10 multiple-choice questions with supporting infographics, VAs or pictures, and links to the original tweet/reference article. At the end of the quiz, the participants received an answer key with links to the original tweet and/or research article, detailed feedback on the choices, a personal score, and a global rank in real-time. Quizzes were shared with a clickable link on SoMe, and winners were acknowledged on SoMe with e-certificates.

Overall, 4 quizzes covering each day of WCN21 received 2275 page visits and 1253 completed attempts by July 28, 2021 (Table 1). Although 57% of quiz attempts (713 of 1253) were on April 19, 2021, there was ongoing global participation for long after the congress. Furthermore, although 63.3% (range on the 4 days—58.1%–69.2%) of the participants completed the quiz on mobile phones, emphasizing the ease of accessibility, 35.4% (29.2%–40.7%) used laptops/desktops and 1.3% accessed it on tablets. All the quizzes are permanently archived in

the ISN Academy as an accessible long-term educational resource.

WCN21 quizzes gathered 5 times higher responses as compared with those at WCN 2019 (in-person congress),³ underlining its popularity in a virtual congress. Being an interactive, gamified educational review of selected conference content that is free of charge, unrestricted by geography and time, the quizzes became a popular resource facilitating active learning during and beyond the congress.

Podcasts

As part of the Global Kidney Care Podcast Series, WCN21 used daily podcasts on interviews and interesting topics to disseminate conference information and better engage the audience. The podcasts provide a more nuanced discussion on several aspects of the topic, where short tweets or tweetorials are unlikely to do justice. There were 6 podcast sessions with multiprong discussions among presenters from across the globe that were released daily during the conference. The podcasts were downloaded 797 times, with an average of 132 downloads per episode. The most downloaded podcast (211 downloads) covered peritoneal dialysis, acute kidney injury, and regional capacity building.

Discussion

The pandemic had imposed unique challenges in the format of medical conferences, enforcing a move from the physical, face-to-face meetings to an online virtual format. The strategies proposed for successful conducting virtual meetings include preplanning, testing of different platforms, use of readily and widely available technology, offering real-time responses, communication options to engage the audience, and postmeet

evaluation.^{5,6} WCN21 used these strategies effectively, allowing for limited real-time audience-speaker interaction and networking opportunities with break-out sessions. The real-time WCN21 SoMe coverage supported by the adoption of poster talks, VA, quizzes, and podcasts amplified its reach to a broader audience.

The future beckons a hybrid meeting format, where some participants join online while others attend in-person, to enjoy the benefits of both formats.^{7,8} A hybrid meeting format will bring unique challenges for the organizers, including staffing, scheduling, pricing, session preparation, and balancing participant engagement with online facilitation. Moderators, speakers, and presenters need different styles and skillsets for simultaneously managing the in-person and the virtual formats. Tech-savvy speakers/moderators with good SoMe following and experience provide a particular advantage, by enhancing the online networking of the hybrid meeting.

The pandemic-fueled change in the conference format along with the innovative support by the @ISNeducation team is promising and raises the expectations for the hybrid WCN 2022.

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