

ADOLESCENT NUTRITION



Current progress and looking ahead

Meeting Report 9 - 10 February 2021



Save the Children



Irish Aid
Rialtas na hÉireann
Government of Ireland

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Abbreviations

BISA	Better Investment for Stunting Alleviation
CDC	Centers for Disease Control and Prevention
CHNRI	Child Health and Nutrition Research Initiative
DHS	Demographic and Health Survey
ENN	Emergency Nutrition Network
GAIN	Global Alliance for Improved Nutrition
GDQS	Global Diet Quality Score
GIFTS	Girl Iron Folic Acid Supplementation
IFAD	International Fund for Agricultural Development
LMICs	Low- and middle-income countries
LSHTM	London School of Hygiene and Tropical Medicine
MOHFW	Ministry of Health and Family Welfare
NGOs	Non-governmental organisations
PAHO	Pan American Health Organization
SPRING	Strengthening Partnerships, Results, and Innovations in Nutrition Globally
UN	United Nations
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WHO	World Health Organization
WIFAs	Weekly Iron Folic Acid supplements

Acknowledgements

This meeting was organised by ENN, UNICEF and Save the Children and the report prepared by ENN. We are grateful to all the presenters and panellists for sharing their expertise in such an engaging way. We would also like to thank members of the Adolescent Nutrition Interest Group for their help in distributing information about this meeting. Finally, we are grateful to Ireland's Department of Foreign Affairs for their ongoing support for adolescent nutrition, including providing funding for this meeting.



Background and objectives

The World Health Organization (WHO) defines adolescence as the period between 10 and 19 years of age. During this critical phase of life, adolescents experience rapid growth and development which impacts their lifelong health and wellbeing. In addition, the nutritional status of adolescents, and of girls in particular, forms the foundation for healthy growth, development and susceptibility to disease in the next generation. This is particularly relevant in low- and middle-income countries (LMICs) where 95% of the 12 million global adolescent births occur each year.¹

The United Nations (UN) Sustainable Development Goal 2 to 'end hunger' calls for action towards ending all forms of malnutrition by 2030. However, research and investment to achieve this goal has predominantly focused on children under the age of five years and on pregnant and lactating women with adolescents receiving little attention within the global nutrition agenda.

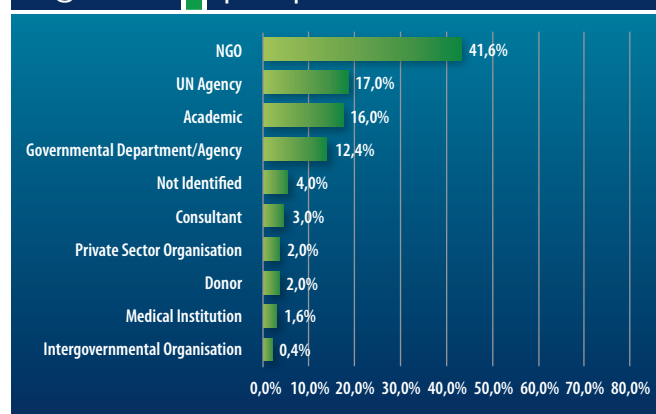
In 2016, The Lancet commission on adolescent health and wellbeing highlighted a number of gaps in our understanding of how to improve adolescent health and nutrition. These included a lack of data from LMICs, as

well as disaggregated data by age groups and gender, the need for more adolescent-focused and/or adolescent-friendly interventions, a global consensus on research priorities and a better understanding of what influences and motivates adolescent behaviour change.² While evidence and programme experience in this area has grown since 2016, a lack of information and consensus on the burden of malnutrition and on successful interventions to improve malnutrition in adolescents remains.

Since the Lancet commission paper in 2016, interest has been growing in adolescent nutrition. A number of international meetings have been held including: a **stakeholder consultation** (United States Agency for International Development (USAID)/Strengthening Partnerships, Results and Innovations in Nutrition Globally (SPRING)/Pan American Health Organization

¹ https://www.who.int/maternal_child_adolescent/events/2008/mdg5/adolescent_preg.pdf?ua=1

² Patton, G C, Sawyer, S M, Santelli J S, Ross, D A, Afifi, R, Allen, N B, et al. Our future: A Lancet commission on adolescent health and wellbeing. The Lancet [Internet]. 2016 [cited 2018 Mar 13]; 387:2423–78. Available from: [http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(16\)00579-1/abstract](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(16)00579-1/abstract)

Figure 1 Type of organisations where participants work

(PAHO)) in October 2017 followed by a 'Call to Action' signed by over 100 organisations; an **Emergency Nutrition Network (ENN)/London School of Hygiene and Tropical Medicine (LSHTM)/Save the Children meeting** in December 2017 where the Adolescent Nutrition Interest Group was formed; an **Agents of Change meeting** hosted by Global Alliance for Improved Nutrition (GAIN) in June 2018; and finally a **Leaving no one behind: making the case for adolescent girls meeting** hosted by the International Fund for Agricultural Development (IFAD) and Save the Children in October 2018.

ENN has continued to coordinate the Interest Group since 2017 and it currently has 70 members. In the group's regular discussions, it was considered important to bring together researchers, academics, practitioners and young people for a two-day virtual meeting on adolescent nutrition. While understanding that virtual meetings need to be shorter than in-person events, the aim of the meeting was to understand the current state of research and programmatic responses related to the

Table 1 Location of participants

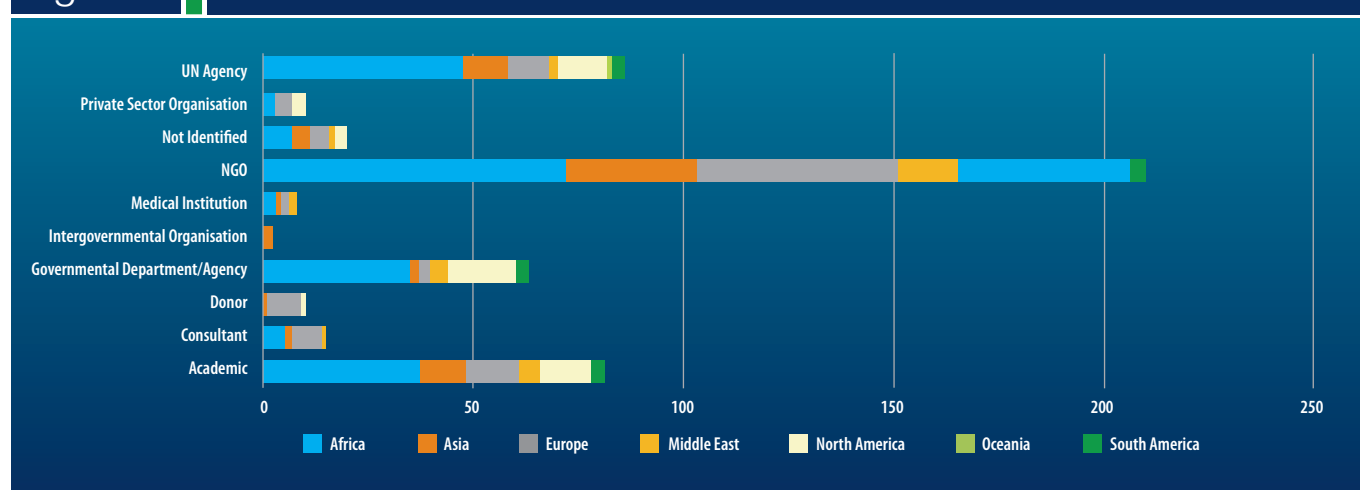
Region	Number attended (Day 1 and/or Day 2)	Percentage
Africa	210	41.6
Asia	64	12.7
Europe	100	19.8
Middle East	29	5.7
North America	88	17.4
Oceania	1	0.2
South America	13	2.6
Total	505	100.0

nutrition of adolescents and to discuss plans for the future. It was organised by ENN, UNICEF and Save the Children with funding support from Ireland's Department of Foreign Affairs. The meeting had two main objectives:

- 1) To share information on some of the latest research and operational initiatives in adolescent nutrition
- 2) To explore priorities for assessing and improving adolescent nutrition across policies and programming

The webinar was very well attended with a large number of participants ($n = 505$) from all world regions (Table 1). The majority were from Africa (42%), Europe (20%) and North America (17%). Participants represented a range of sectors including non-governmental organisations (NGOs) (42%), UN organisations (17%) and academic institutions (16%) with global representation across these sectors (Figures 1 and 2).

The video recordings and available slides from the webinar are available online [here](#).

Figure 2 Participant information by organisation and location



Day 1

Welcome and introduction to the meeting

The meeting began with a welcome and introduction by Emily Mates of ENN. Background on the two day meeting was provided and the growing international recognition of the importance of improving the nutrition of adolescents was highlighted. Gaps in research, policy and programmes targeting adolescent nutrition were also discussed including a lack of knowledge on

the scale of the problem regarding adolescent malnutrition, interventions to improve adolescent nutrition and ways to meaningfully engage adolescents to devise and deliver solutions. The objectives of the meeting were presented along with an overview of the meeting's agenda.

Presentation 1

Adolescent nutritional status – setting the scene. An overview of adolescent nutrition status across seven global regions

Presenters: Dr. Natasha Lelijveld (ENN) and Dr. Stephanie Wrottesley (ENN)

This presentation provided an overview of ENN's ongoing and planned work in the area of adolescent nutrition. This has included an update of available Demographic and Health Survey (DHS) data, an online stakeholder engagement survey and a global systematic review on adolescent nutrition. Firstly, early findings were presented from the DHS data analysis and ENN's recently published [adolescent stakeholder mapping](#)

survey. Priority areas in adolescent nutrition research, policy and programming that need to be addressed were highlighted which included:

- The need for consensus on a universal definition of adolescence
- The need for standardisation of anthropometric indicators of malnutrition in adolescents. Different



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survey. Priority areas in adolescent nutrition research, policy and programming that need to be addressed were highlighted which included:

- The need for consensus on a universal definition of adolescence
- The need for standardisation of anthropometric indicators of malnutrition in adolescents. Different

references and cut-offs are currently used for the same indicators (e.g., for thinness and overweight/obesity), including adult cut-offs, which limit comparability

- The need for global and national targets for improving adolescent nutrition which should go beyond anaemia in girls
- The need to collect age disaggregated data for adolescents as well as for sub-groups (e.g., boys, out-of-school adolescents and vulnerable groups)

Secondly, preliminary results from the global systematic review on adolescent nutrition were presented. In order to gain an in-depth understanding of adolescent nutrition across different world regions, regional literature reviews were conducted (six reviews by ENN and one by the UNICEF Europe and Central Asia regional office). Early findings highlight that research on the prevalence of malnutrition in adolescents and school-aged children is insufficient, along with interventions to improve nutritional status, across countries and regions of the world. This synthesis work is currently being finalised and will be submitted for publication within the next few months.

The work that ENN is currently engaged in for this year was then discussed including how participants at the meeting could become involved. Specifically, ENN will be conducting a research prioritisation exercise on adolescent nutrition using the Child Health and Nutrition Research Initiative (CHNRI) approach. A special edition of the ENN Field Exchange publication dedicated to the nutrition of adolescents and school-aged children is currently under development and is scheduled for publication in October 2021. Interested participants were invited to contact the editorial team with ideas for contributions towards field articles, research summaries, news items and views pieces that may be suitable for inclusion in the special edition.³

Finally, ENN will continue its coordination role for the Adolescent Nutrition Interest Group.⁴ The group consists of researchers, academics and practitioners and aims to identify emerging research and operational experiences, disseminate existing data and information and help to 'bridge' multi-sector disciplines by bringing interested parties together and facilitating discussion and learning.

Presentation 2

Youth-led solutions for better nutrition in Indonesia (BISA) project

Presenters: Dr. Dee Jupp (Empatika)

This presentation described the exploratory research findings from the Better Investment for Stunting Alleviation (BISA) study conducted in Indonesia. Research took place in two diverse areas, namely West Java, a predominantly Islam and more urban area with diverse income sources, and Nusa Tenggara Timur (NTT) which is a predominantly Christian, rural area reliant on agriculture. Qualitative approaches were used to explore the dietary practices of adolescents and to understand factors that influence these. Rapid ethnographic approaches, where researchers live with study participants in their homes and record information first-hand, proved useful to elicit information directly from adolescents who are often not included in research and study design.

Differences in eating patterns between the study sites were noted. However, rice was regarded as the main dietary staple at both sites with other foods considered an addition or a side dish. In West Java, where there are more diverse income opportunities, snacks and fried foods were widely available and adolescents received pocket money to purchase these. In NTT, more traditional diet patterns were observed, including consumption of bush meat sources, and adolescents did not often have pocket

money to purchase a diverse range of foods. Adolescents expressed desires to work after high school and to delay having children until they are about 22 years of age.

Girls felt that the provision of weekly iron folic acid supplements (WIFAs) in schools was intended for those who were unwell and did not see the need to take them when they felt healthy.

Adolescents regarded social media as being for recreational purposes only and disliked it when these platforms were infiltrated with government and educational information. Widespread 'fake news' had also reduced adolescents' trust in social media.

Overall, this presentation showed how engagement with adolescents can be used to incorporate adolescent priorities into interventions and to ensure that these interventions focus on issues that the adolescents themselves consider to be important.

³ Field exchange editorial team contact details; chloe@enonline.net or nicki@enonline.net

⁴ For information regarding the adolescent nutrition interest group, contact emily@enonline.net

Panel discussion

Youth engagement in adolescent nutrition

Moderator: Sophie Healy-Thow (SUN LEAD group member)

Participants: Dipty Chowdry (Bangladesh), Tasha Mhakayakora (UK) and Webster Makombe (Zimbabwe)

This panel discussion started with a short introductory message from Sophie on the need to include the world's growing adolescent population in discussions about their nutrition and wellbeing. Each panellist then introduced themselves and provided background on their work involving adolescents. The key highlights of this panel discussion are summarised below.

- Adolescents make up a large proportion of the population in many nations and particularly in LMICs. Thus, harnessing adolescent voices and including them in the development of solutions has the potential to make a substantial difference to improving their nutrition.
- Targeting adolescent nutrition is important to preventing malnutrition in the next generation.
- Along with adolescent voices, ensuring diversity amongst adolescent voices from different backgrounds and cultures is important. This is particularly relevant when tackling cultural, religious and gender barriers to good nutrition.
- Food industries are hugely influential in young

people's dietary choices and often promote unhealthy junk food. To highlight how this influence often operates at a subconscious level, a powerful [video](#) was shown illustrating the influence that food industry advertising has on adolescent food choices. Greater involvement of young people in ensuring that they make healthier choices is essential to tackle the obesity epidemic, as well as other forms of malnutrition, in adolescents.

- Engagement with youth via social media showed that young people like these platforms, alongside in-person engagement, rather than email or online conferences. The use of technology is important but not everyone has stable access to these platforms. It is therefore important to use simple approaches to access adolescents, for example via WhatsApp.
- There is complexity in understanding how to best engage with adolescents. Approaches must consider that adolescents generally do not appreciate adults encroaching on their engagement with social media and should remain youth-led wherever possible.





Day 2

Welcome and introduction

Natalie Roschnik (Save the Children) began Day 2 of the webinar with a welcome and introduction to the day's planned activities and presenters. A brief recap of the previous day was also provided.

Presentation 1

Food and Me: How adolescents experience nutrition across the world.

Presenters: Dr. Catharine Fleming (Western Sydney University, Australia)

This project was a partnership between Western Sydney University and UNICEF with the research conducted in 18 countries across the globe. UNICEF country offices conducted 37 participatory workshops involving a total of 656 adolescents. These aimed to capture adolescent voices from the field within nutrition conversations. The study focused on adolescent dietary intake, body image and barriers to healthy eating. Key messages from the study findings included:

- Creative and participatory approaches, such as creating spaces for discussion, fun activities such as drawing creative pictures, self-recording of their diets, etc., were effective methods of engaging adolescents

and allowed assessment of their knowledge of healthy foods and food preferences (how adolescents view the foods they eat and why, i.e., contextualising their dietary intake).

- Using images of fruit can be a useful approach to describe body types and allow adolescents to describe their perceptions of their own bodies. These images tend to be less confronting and can be adapted to context to ensure they are culturally specific.
- There was evidence that body image regularly influences how adolescents approach dietary intake; a 'thin' body ideal was evident in the discussions from early ages.

- Adolescents reported that family is the strongest influence on their dietary choices followed by social media and peers.
- Adolescents experienced many barriers to improving their diet and food systems were failing them. Many adolescents skipped meals and described affordability

and accessibility of healthy food as a primary challenge.

- Young people were calling for a 'whole community' approach to ensuring that adolescents can thrive.
- The importance of starting conversations with young people was described as key to sustainable change.

Presentation 2

Upcoming Lancet mini-series on adolescent nutrition

Presenters: Dr. Lynnette Neufeld (GAIN and Series co-lead).

The upcoming Lancet mini-series on adolescent nutrition was commissioned in light of the inadequate focus to date on adolescent nutrition. The mini-series will include three papers. Paper 1 focuses on the biology of adolescent growth and is led by Edward Frongillo and Shane Norris *et al.* Paper 2 covers food choice and adolescent agency within their food environments and is led by Lynnette Neufeld *et al.* Paper 3 is led by Dougal Hargreaves,

Purnima Menon, Emily Mates *et al.* and explores interventions and strategies for improving adolescent growth and nutrition. These papers are currently under peer review and are expected to be published later this year (likely between October and November 2021). Given this, findings from the papers were not presented but the overarching challenges in adolescent nutrition which led to the development of the series were discussed.

Panel discussion

Government and organisational perspectives

Moderator: Deepika Sharma (UNICEF)

Participants: Esi Amoafu (Ghana Health Service), Dr. Sumita Gosh (Ministry of Health and Family Welfare (MOHFW) India), Vilma Tyler (UNICEF), Dr. Sascha Lamstein (USAID Advancing Nutrition), Dr. Yaw Addo (Centers for Disease Control (CDC), USA) and Prof. Wafaie Fawzi (Harvard School of Public Health)

This panel discussion aimed to capture views and opinions from a wide range of experts working across various organisations. Each participant was introduced and given the floor to describe important aspects of their work in adolescent nutrition and this was followed by a question and answer session.

Ms. Esi Amoafu of the Ghana Health Service highlighted investments in adolescent nutrition by the Government of Ghana and NGOs working in Ghana. She specifically highlighted the inception and national scale-up of the Girl Iron Folic Acid Supplementation (GIFTS) programme by the Ghana Health Service, UNICEF, CDC and other partners.

Dr. Sumita Gosh from the MOHFW in India discussed the current strategies and programmes being implemented to improve adolescent nutrition in India. She emphasised how critical it is to adopt a multi-sector approach including developing partnerships to

appropriately tackle the many issues that adolescents are currently experiencing.

Ms. Vilma Tyler of UNICEF in New York shared the progress made by UNICEF in adolescent nutrition as well as UNICEF's vision for improving the nutrition of adolescents. UNICEF recently released a new [nutrition strategy 2020-2030](#). This aims to support governments and partners in scaling up programmes and policies to end malnutrition in both development and humanitarian settings. The strategy has a special focus on middle childhood (5-9 years) and adolescence (10-19 years). A systems approach has been adopted to improve nutrition outcomes in the target groups. The strategy identifies food, health, water and sanitation, education and social protection as the key systems for improving child and adolescent nutrition.

Dr. Sascha Lamstein of USAID Advancing Nutrition discussed their current project where an 'adolescent nutrition resource bank' has been developed. This aims

to bring together relevant programmatic material on adolescent nutrition in one place for easy access (website now complete [here](#)).

Prof. Wafaie Fawzi of the Harvard School of Public Health discussed the research gaps in adolescent nutrition globally, particularly focusing on anthropometric data and the cut-offs used, as well as the gaps in data for younger adolescents and for adolescent diets. Prof. Fawzi is currently involved in the development of a dietary assessment tool, the Global Diet Quality Score (GDQS). This tool provides a new metric of diet quality, appropriate for use in LMICs, which will be sensitive to both micronutrient status and overnutrition. More information on the GDQS can be found [here](#).

Dr. Yaw Addo (CDC, USA) shared the work currently being carried out for adolescent nutrition particularly focusing on activities taking place internationally (i.e., outside the USA). Dr. Addo explained that CDC's role

focuses on providing technical assistance and capacity building to support adolescent nutrition across the many countries where they work.

Key points arising from the panel discussions included:

- The need to focus on data beyond anthropometry, specifically investing in the assessment of dietary intake. The use of long questionnaires has been a key challenge in dietary assessment tools but the new GDQS aims to fill these gaps.
- There has been progress with iron and folic acid supplementation and deworming. However, other micronutrients have largely been overlooked in research and programming activities.
- There is a need to integrate intervention approaches. School gardens were discussed as a potentially effective platform that is being further explored.
- It is important to bridge the gap between research and being translated into implementation.

Questions and answers

Participants were invited to ask questions, both when initially registering for the meeting and during presentations and panel discussions via the chat feature. Many questions were asked and responses given during the meeting; however, it was not possible to discuss all questions raised due to time constraints. These questions have since been posted under the adolescent nutrition thematic area on the en-net forum for further engagement.

The en-net forum is a free and open resource to provide field practitioners with access to prompt technical advice for operational challenges. The platform is monitored by expert moderators who respond to questions and peers are encouraged to join the community to ask and respond to questions as well as to share experiences. The forum can be accessed [here](#) and further information about en-net and how to register is available [here](#).

Closing

When closing the meeting, ENN acknowledged the support from Ireland's Department of Foreign Affairs and invited Mary McCarthy, the nutrition portfolio lead for Ireland, to provide some closing remarks. These included a brief recap of the discussions held over the two days with special thanks to the individuals and organisations involved in hosting it, particularly ENN, UNICEF and Save the Children. Appreciation for all the moderators, presenters and participants for their active involvement across the two days was expressed. Finally, all participants were urged to keep discussions related to adolescent nutrition going in order to ensure that this valuable work is taken forward.



Annex 1

Post-meeting evaluation summary

Participants were asked to evaluate the usefulness and relevance of the meeting when they logged off at the end of each day. The combined feedback from both days (n = 100) is summarised below in Figures 1 and 2. The majority of participants thought that the meeting was either useful or extremely useful (99%), finding the contents to be either very relevant or relevant to their

current work (81%). No participants found the meeting not at all useful or not relevant.

Participants were given the opportunity for open responses in the evaluation questionnaire. For the question, 'Additional feedback on presentations (what worked well, what could be improved?)', a selection of the responses is given in italics below

Figure 1 Usefulness of the meeting

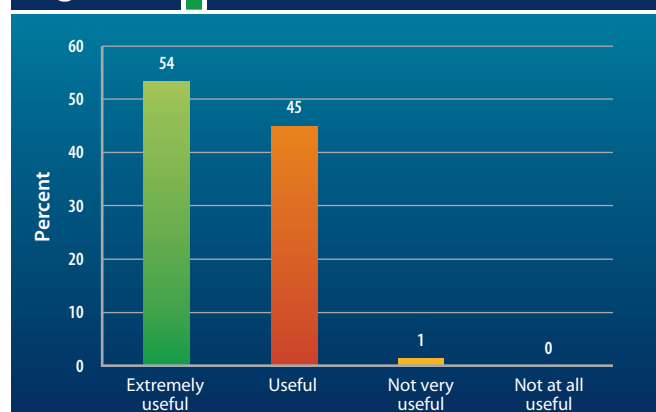
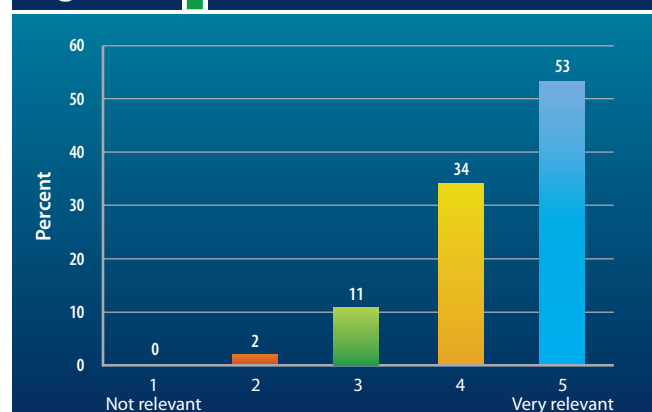


Figure 2 Relevance of the meeting content



For what worked well:

"I thought the visuals/maps were really good and helpful to understand the content. Also thought the polls/questions were a good way of keeping people engaged."

"A very good mix of quantitative and qualitative research as well as youth representation."

"It was a good combination of presentations – didn't become too 'heavy' – I particularly enjoyed the research from Indonesia and hearing from the youth panel".

"I thought the presentations and the panel were all fascinating. This is one of the best conferences I have been to since COVID started. Well done!"

What could be improved:

"The pace of talking was too high".

"Translation in other international languages should have been done".



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