

Breakout session 2: Rehabilitation and assistive technology

16th March 2022



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Chair: Dorothy Boggs	
Ritu Ghosh	Service users' and providers' perspectives on the introduction of telehealth for provision of rehabilitation and assistive technology services in a low resource setting during the COVID-10 pandemic
Paula Melizza Valera	Access to Rehabilitation Services and Assistive Technologies during the COVID-19 Pandemic: Insights from the Philippines
Ammar Hasan Beck	Improving access to specialized health services for Syrian refugees in Turkey during COVID19. A case study in telehealth
Louise Puli	COVID-19 and global access to assistive technology

Ritu Ghosh
Mobility India

Service users' and providers' perspectives on the introduction of telehealth for provision of rehabilitation and assistive technology services in a low resource setting during the COVID-10 pandemic

Service users' and providers' perspectives on the introduction of telehealth for provision of rehabilitation and assistive technology services in a low resource setting during the COVID-19 pandemic



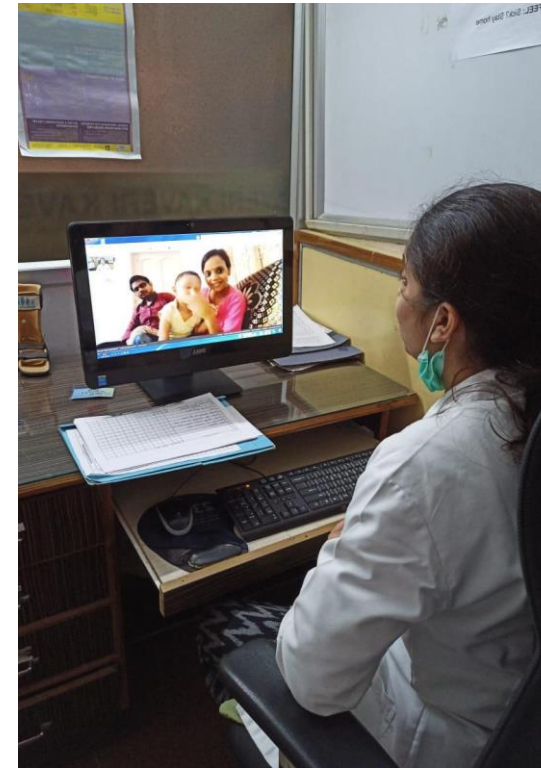
Ritu Ghosh
Aoife Healy
Akash Prabhune
Aishwarya Mallavaram
Sama Raju
Nachiappan Chockalingam



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OBJECTIVE

This study assessed the implementation, from the perspective of service users and providers, of telehealth service delivery in a low resource setting



Methods

Analysis of demographic and clinical data
(pre and post pandemic period)

Semi structured interviews
(service users/caregiver and providers)

Pandemic	May to October, 2020
Pre pandemic	October 2019 to February, 2020

Methods

- 1) Consultation
- 2) Therapy (predominantly physiotherapy assessment, reassessment or intervention)
- 3) New assistive technology (AT)
- 4) AT repair
- 5) Follow-up



Methods

Service user demographics and modes of service delivery during the COVID-19 pandemic

Service users' and providers' experiences of service delivery during pandemic

Experience with in-person/telehealth services (users and providers)

Financial costs



Results

More adult service users than children (59% v 41%) for in-person service, most telehealth service users were children (≤ 18 years; 88%).

Service users lived mostly in an urban area (81-97%), for both modes of delivery.

Telehealth mode services were mostly therapy services (90%) undertaken by 68% users with cerebral palsy.

Telehealth consultations found not suitable for all patient groups.

Results

The service users/providers were very/extremely satisfied with their overall experience of service delivery via telehealth mode.

Barriers like access to smartphones, lack of skills to operate smartphones, and issues with network connectivity quality & environment indicate the need for an individualised approach.

In-service cost was higher than telehealth services.

One size fits all” approach in telehealth services is not appropriate

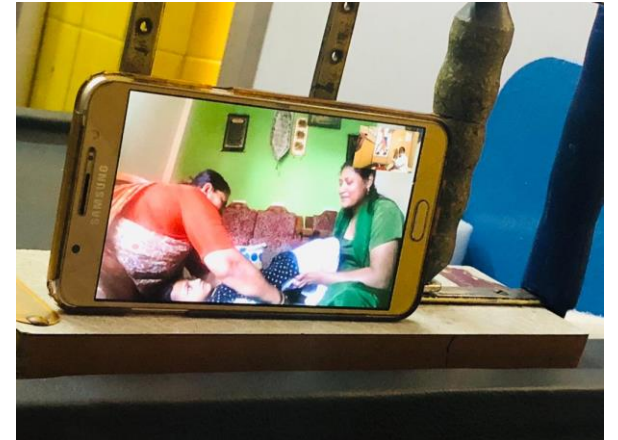
Conclusions

Certain types of AT and rehabilitation services successfully delivered via telehealth.

Alternative cost-effective method to improve access to AT and rehabilitation services.

Barriers to the telehealth service delivery.

Eddison, N., Healy, A., Calvert S. and Chockalingam, N. (in print) The emergence of telehealth in orthotic services across the United Kingdom. Assistive Technology.



Conclusions



References

- Leochico, C. F. D., Espiritu, A. I., Ignacio, S. D., & Mojica, J. A. P. (2020). Challenges to the Emergence of Telerehabilitation in a Developing Country: A Systematic Review. *Frontiers in Neurology*, 11, 1007. <https://doi.org/10.3389/FNEUR.2020.01007/BIBTEX>
- Amatya, B., & Khan, F. (2020). Rehabilitation Response in Pandemics. *American Journal of Physical Medicine and Rehabilitation*, 99(8), 663–668. <https://doi.org/10.1097/PHM.0000000000001477>
- Christy, B., & Keefe, J. (2020). Telerehabilitation during COVID-19: Experiences in service delivery from South India. *Indian Journal of Ophthalmology*, 68(7), 1489–1490. https://doi.org/10.4103/ijo.IJO_1197_20
- Avellanet, M., Boada-Pladellorens, A., & Pages-Bolibar, E. (2020). Rehabilitation during the lockdown. *Rehabilitacion*, 54(4), 269–275. <https://doi.org/10.1016/j.rh.2020.05.003>
- Eddison N. Healy A. Calvert S. Chockalingam N., Eddison, N., Healy, A., Calvert, S., & Chockalingam, N. (2021). The emergence of telehealth in orthotic services across the United Kingdom. *Assistive Technology*. <https://doi.org/10.1080/10400435.2021.1995531>

Paula Melizza Valera

Alliance for Improving Health Outcomes (AIHO)

Access to Rehabilitation Services and Assistive
Technologies during the COVID-19 Pandemic:
Insights from the Philippines

Access to Rehabilitation Services and Assistive Technologies during the COVID-19 Pandemic: Insights from the Philippines

16 March 2021



Acknowledgments and declaration of interests

Acknowledgments

- This study was funded by the Department of Science and Technology - Philippine Council for Health Research and Development under the project Disability Inclusion in Disaster Risk Reduction and Management in Health (DRRM-H) in the Philippines.

Declaration of Interests

- The authors report no commercial or financial relationships that may be construed as a possible conflict of interest.

Background

- The COVID-19 pandemic has been considered an unprecedented health emergency globally, which has profound social and economic consequences, further highlighting massive inequalities
- Rehabilitation services could have been sustained, through identifying and designating areas for rehabilitation services, rendering service through telehealth platforms, or considering mobile or offsite outpatient rehabilitative services

Study aim

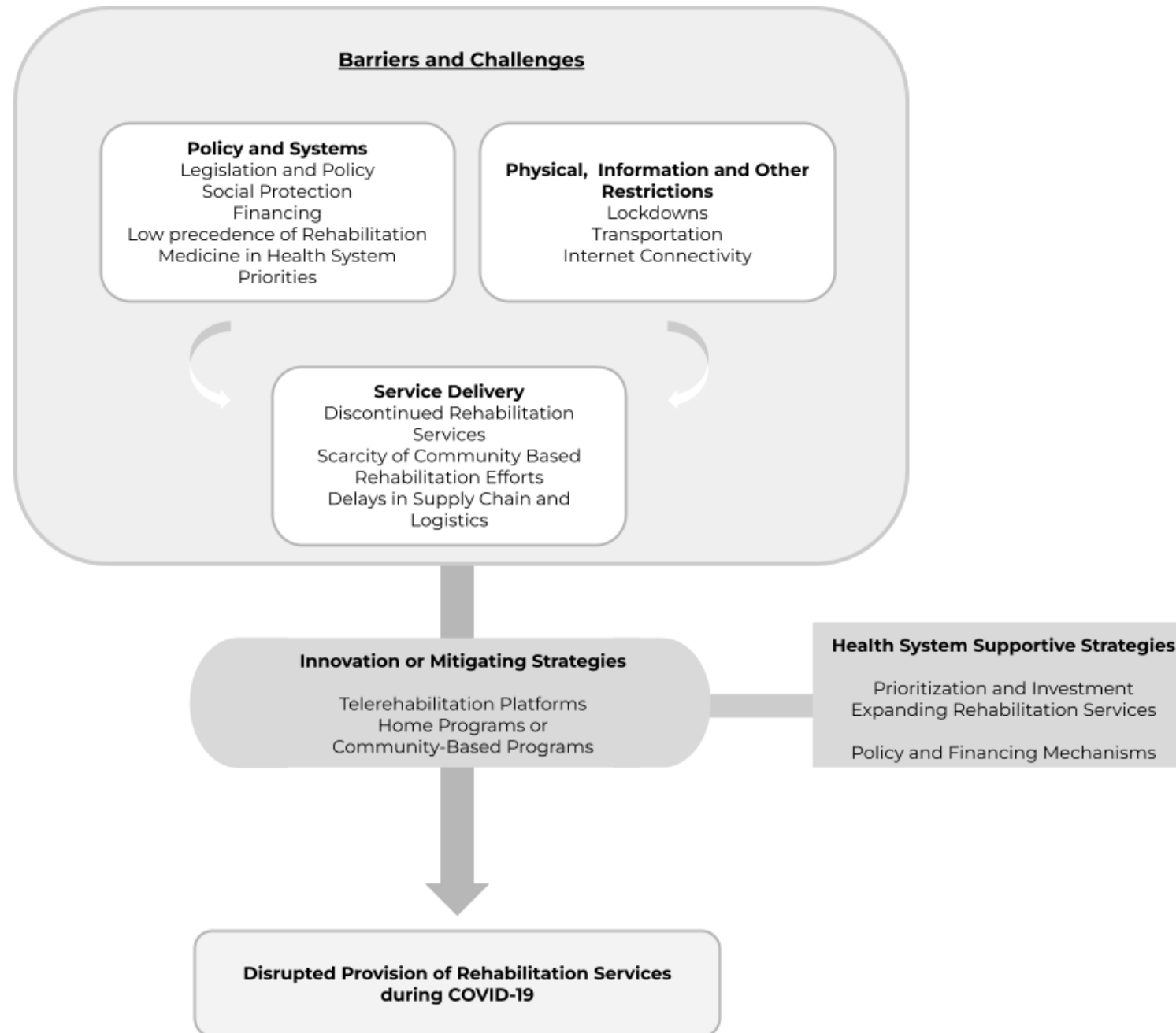
- This study aims to describe barriers and challenges in accessing rehabilitation services during the COVID-19 pandemic and strategies and innovations developed to address access constraints

Methodology

- Twenty (20) key informant interviews were conducted from November-December 2020
- Questions and probes were related to the changes in the delivery of rehabilitation services since the initial COVID-19 lockdown transpired

Results

Figure



Discussion and Key Insights

Discussion and Key Insights

- The pervasive disruption by COVID-19 brought restrictions in transportation and lockdowns, resulting in discontinued access to rehabilitation and other health services in the Philippines.
- Rehabilitation providers, have immediately shifted and adopted their practice through telemedicine platforms to continue the provision of services.

Ammar Hasan Beck
Relief International

Improving access to specialized health services
for Syrian refugees in Turkey during COVID19. A
case study in telehealth

**IMPROVING ACCESS TO SPECIALIZED HEALTH SERVICES
FOR SYRIAN REFUGEES IN TURKEY DURING COVID19.
A CASE STUDY IN TELEHEALTH.**

RELIEF INTERNATIONAL TURKEY
March 16, 2022



RELIEF
INTERNATIONAL

OUTLINES

- RI Turkey; program strategy and achievements
- COVID-19 impacts
- Telehealth
- Conclusion and recommendations



RI TURKEY

RELIEF
INTERNATIONAL

TURKEY CONTEXT

Refugees and asylum-seekers in Turkey including over 3.7 million Syrians under temporary protection and over 330,000 international protection status holders and asylum-seekers of other nationalities. Over 98% of Syrian refugees live across Turkey in 81 provinces, while 1.5% are hosted in seven temporary accommodation centers managed by DGMM.

UNHCR operational update September 2021

RELIEF INTERNATIONAL TURKEY PROGRAM STRATEGY



Health Access: support the Ministry of Health (MoH) to fill the gaps in terms of health service delivery and access for refugees, focusing on specialized services (MHPSS, PR, P&O) and community health; providing support to the transition of the specialized services to MoH to ensure safe and inclusive access to services for refugees with disabilities.



Livelihoods Opportunities: provide livelihoods support for PWDs, with a focus on refugees and other vulnerable community members.



COVID-19 response: assist Turkish municipalities in providing/distributing in-kind food and hygiene kits



Capacity Building: support local partners to build their capacity (organizational and technical) for long term sustainability.

- **Evidence based programs and Research** – rigorous assessments of program data, lessons learned and collaboration with universities/ think tanks to improve evidence based and gap fill

When

- Launched: **2014, Gaziantep**

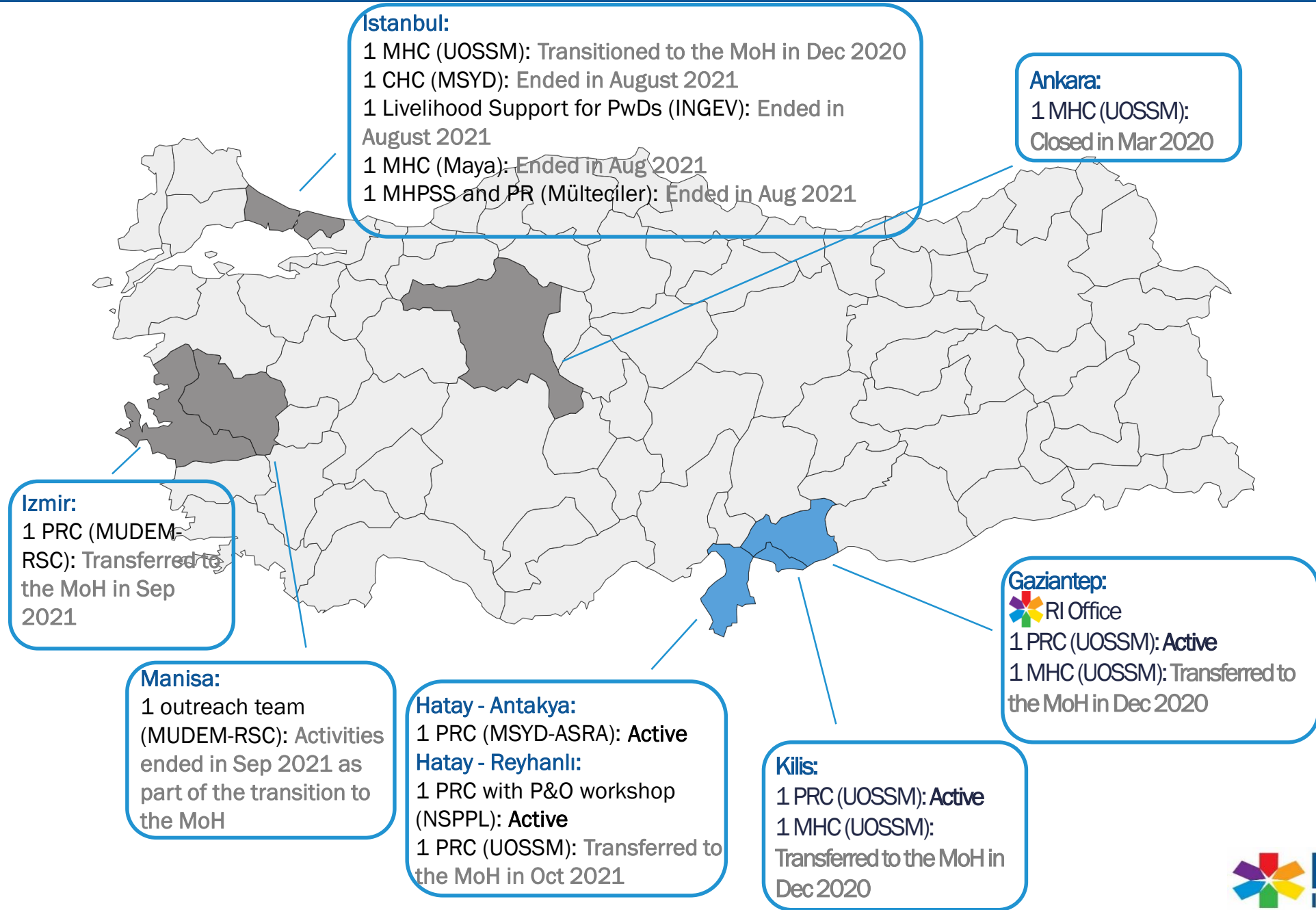
Who

- Syrian and non-Syrian refugees
- People with Disabilities (PwD)

Where

- Kilis, Hatay, Istanbul, Izmir, Manisa, Gaziantep
- Expansions to other undeserved areas thanks to the tele-health approach.
- RI has its main office located in Gaziantep, along with a field office in Istanbul.

RI-TURKEY LOCATIONS





COVID-19 IMPACT

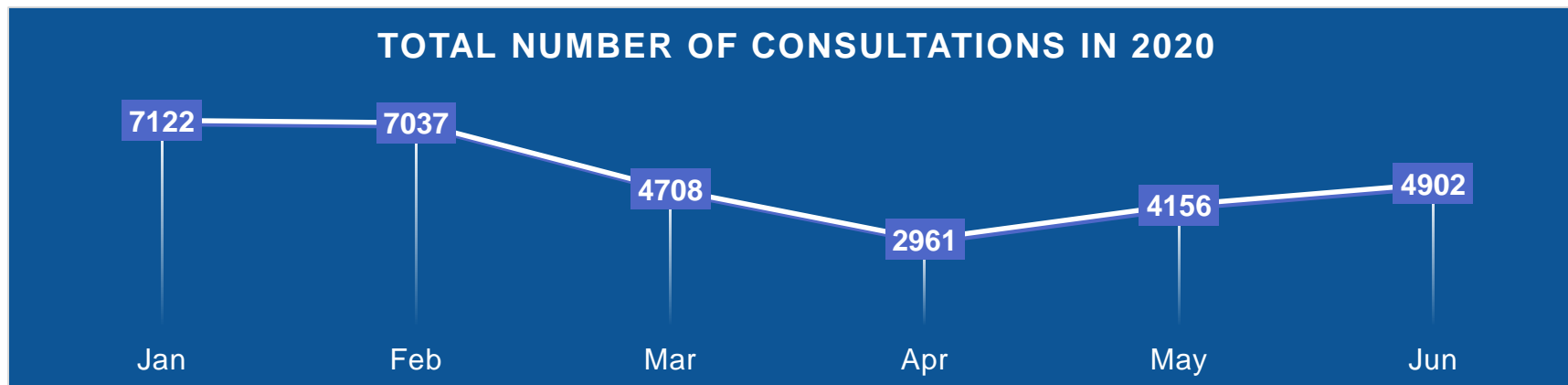
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RNA ABOUT COVID-19 IMPACTS

- RI conducted a Rapid Needs Assessment in April 2020 to evaluate the impact on accessing services by Syrian refugees with disability.
 - Health services (29% have access after COVID Vs 87% before)
 - Other basic needs i.e. food/hygiene etc. (59% had no access to food, 37% to hygiene, and 5% to clean water)
 - Loss of livelihood (87% lost their job because COVID)

COVID-19 IMPACT ON THE SERVICES CONTINUITY

- At service delivery level – what was experienced:
 - Need to close centers for most time until mid-June as per MoH recommendations
 - Restrictions in # of staff attending center reduced capacities for in-center services
 - Restrictions in activities requiring gathering i.e. group sessions/awareness raising
 - Interruption in supply chain resulting from closure of supplier, lack availability of products in country and challenges in importing.
- All RI-supported centers closed in the second half of March and the service provision was interrupted.



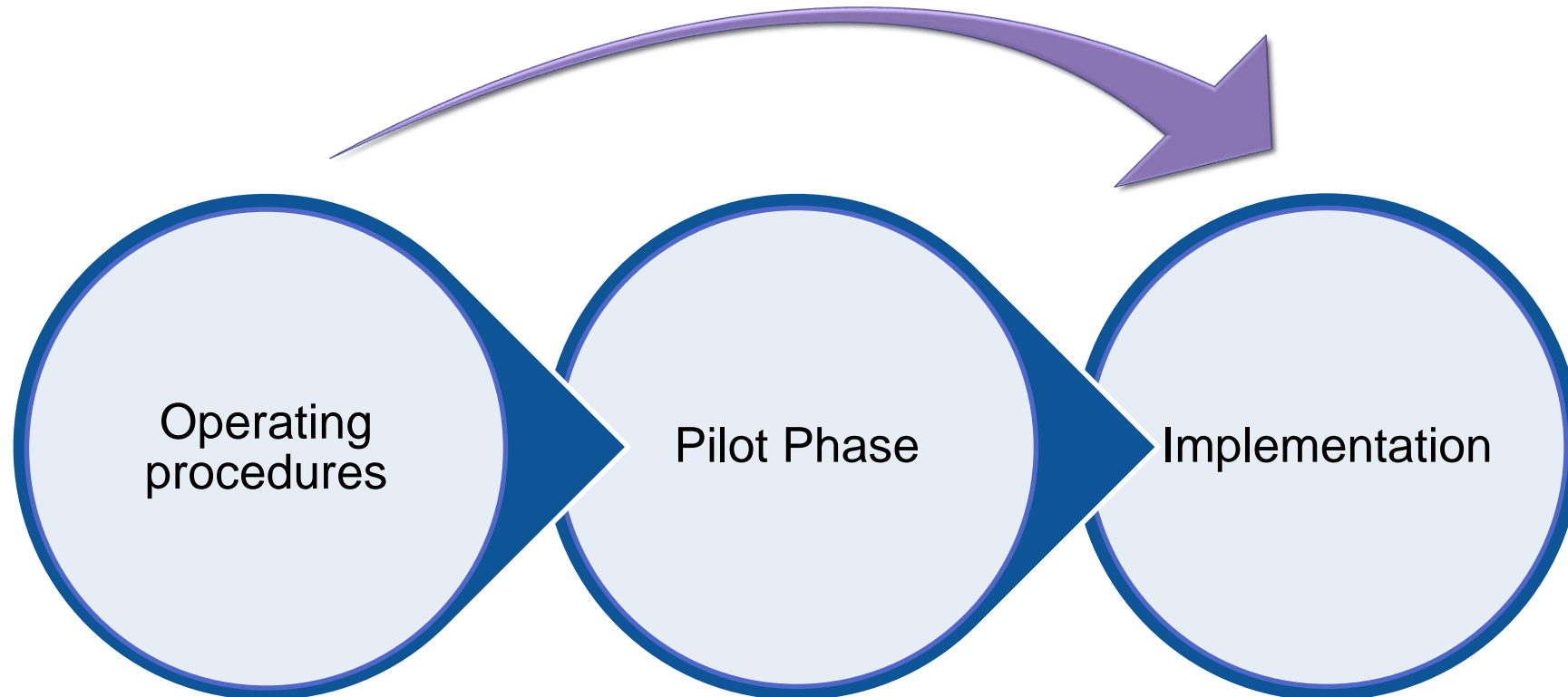


TELEHEALTH

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TELEHEALTH PLAN

Supporting & Monitoring



Evaluation to update Telehealth process

PILOT PHASE

- Two-month pilot phase (April 1 – May 31, 2020).
- Specialists with the extended experience and communication skills were enrolled.
- Existing patients who have access to online session were enrolled.
- The centers conducted **5,583** telehealth sessions to **1,483** patients.
 - MHPSS centers conducted 2,154 telehealth MH sessions to 950 clients
 - PR centers conducted 3,429 telehealth PR sessions to 533 clients.
- RI conducted two separate satisfaction surveys:
 - The first survey with the patients who received the PR services through telehealth modality.
 - The second one with the specialists who provided the services through telehealth modality.

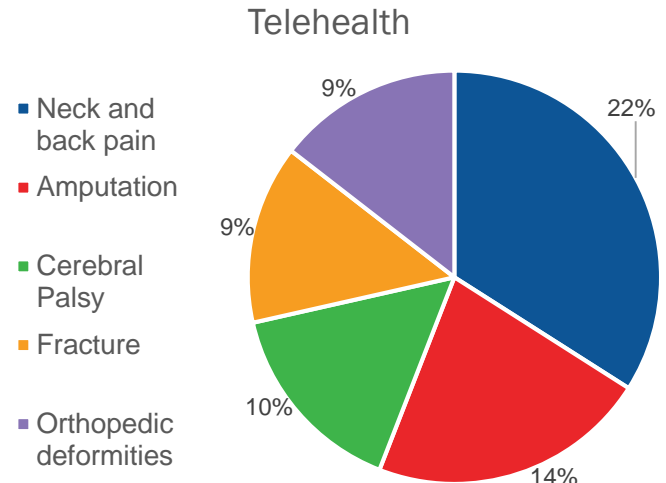
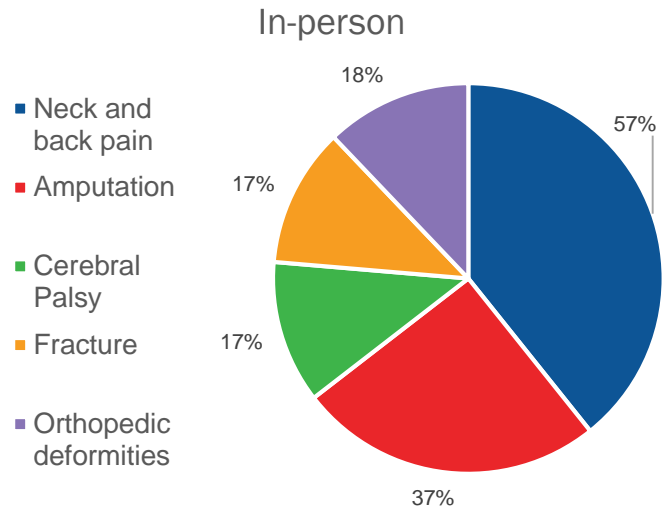
IMPLEMENTATION PHASE

- RI and partners started the implementation phase on June 1, 2020.
- RI expanded the application of the telehealth modality as follows:
 - All partners' specialists participated in this phase.
 - New patients were enrolled.

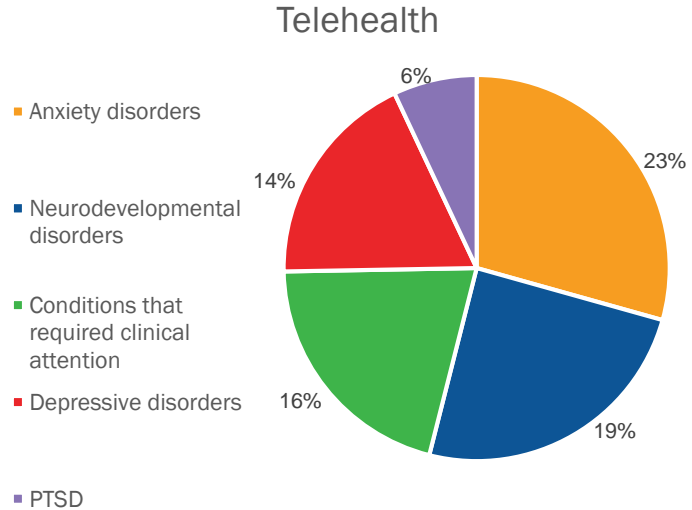
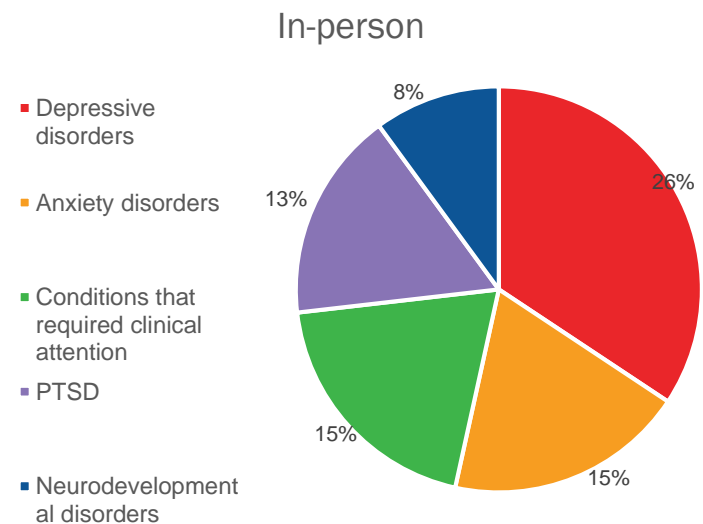
TELEHEALTH EVALUATION

- Between June 1, 2020 and June 30, 2021, RI provided 22,037 telehealth sessions to 4,436 patients.
 - MHPSS centers conducted 8,280 telehealth MH sessions to 1,505 clients
 - PR centers conducted 13,757 telehealth PR sessions to 2,931 clients.
- **children <18 used telehealth (54%) and mixed (53%) modalities more than the in-person modality (27%), whereas young and elderly used the in-person modality more → telehealth helped children more**
- **Female used telehealth (48%) and mixed modalities (46%) more than the in-person modality (42%) → telehealth helped women more.**

Looking if telehealth was applicable for all types of impairments/disorders.

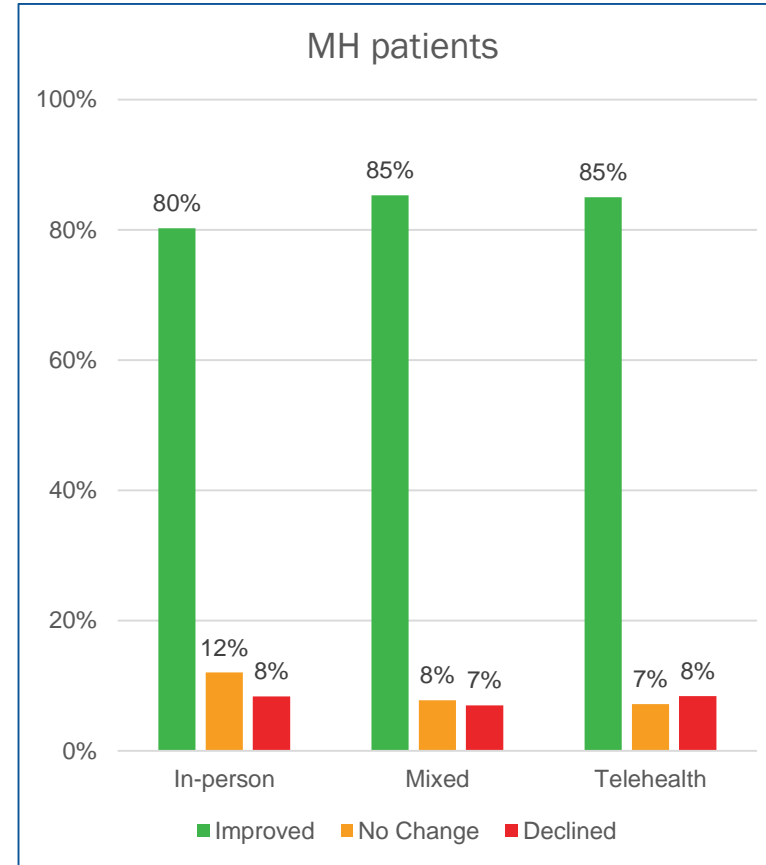
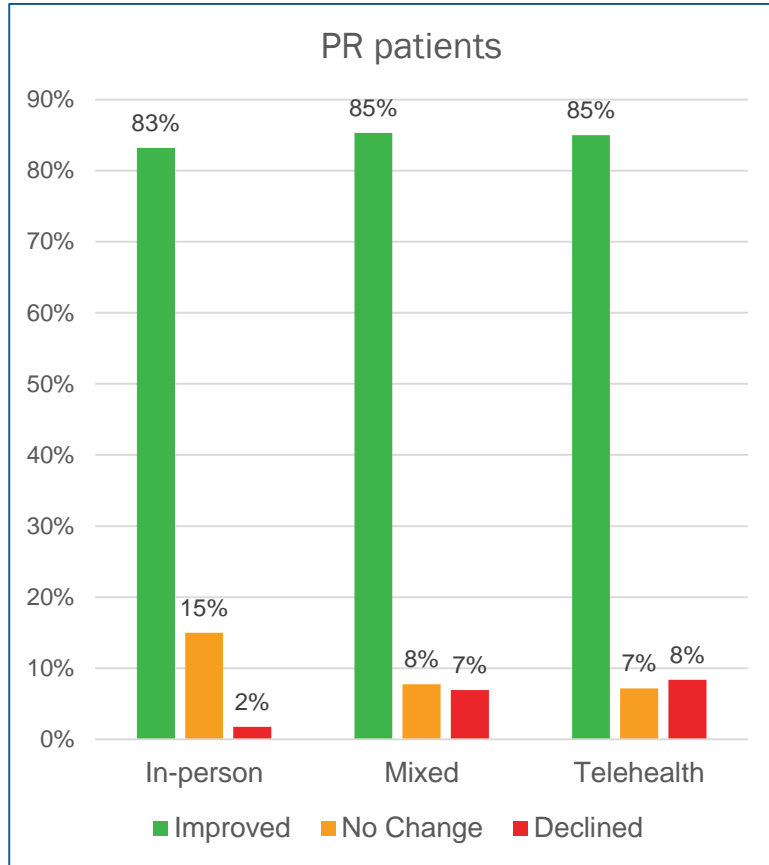


MSI

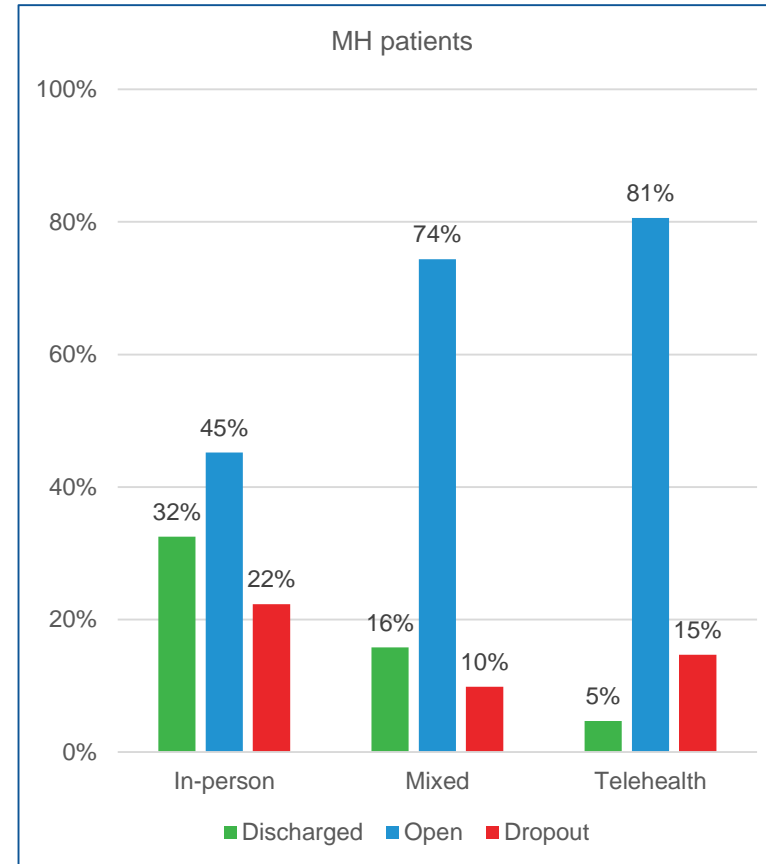
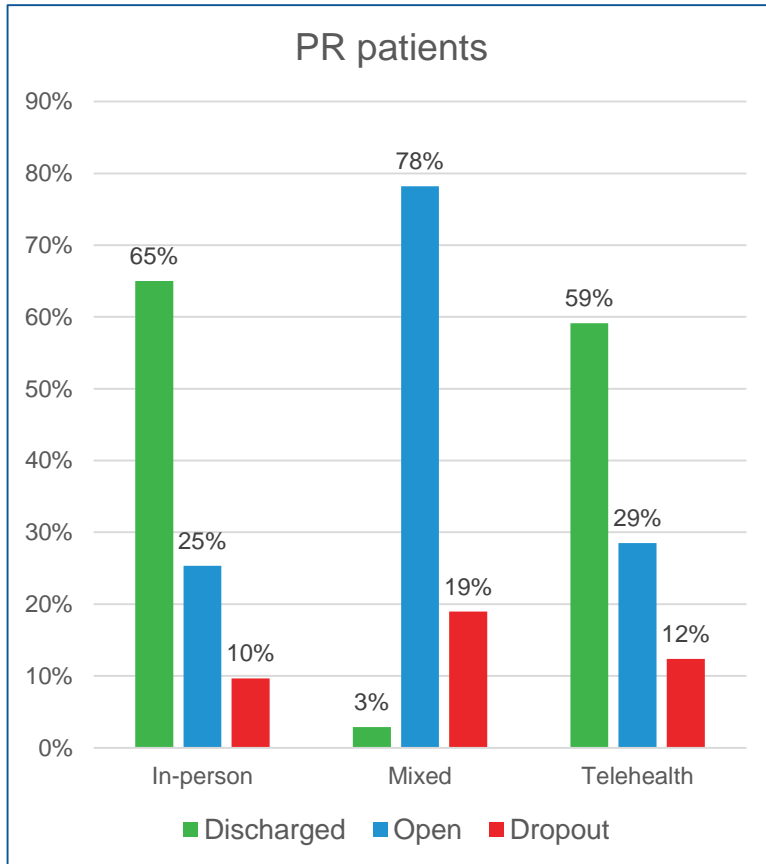


MH disorders

- improvement among the three categories based on the standard tools



- RI investigated if the percentage of the dropout cases increased with the telehealth modality.



Patients' feedback

- 70% of the respondents gave a positive feedback about the telehealth, 26% had concerns about it, and 4% preferred the in-person modality.
- main reasons: insufficient telehealth sessions (96%) and difficulties in accessing the sessions due to internet or devices (4%).



CONCLUSION

- Disability prevalence is high among Syrian refugees Turkey.
- Syrian refugees and PwDs in specific facing a lot of challenges in accessing health services.
- COVID-19 has increased the challenges in accessing health services.
- Telehealth findings demonstrated excellent results.
- Telehealth overcame some challenges related to physical access to services.
- Telehealth can be successfully applied in the humanitarian field when there are available infrastructures to provide online services.

RECOMMENDATIONS

- Continue to support disability programs in Turkey – Persons with disability need to be prioritized given challenges accessing services and new health insurance regulations.
- More in-depth research are required to explore the current needs.
- Strengthen telehealth through providing more training for specialists, increasing the awareness on telehealth among the target communities and ensuring patients receive the needed equipment such as internet packages, smart devices and instruments for home exercises.

THANK YOU

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WHO

COVID-19 and global access to assistive
technology

Assistive Technology & COVID-19

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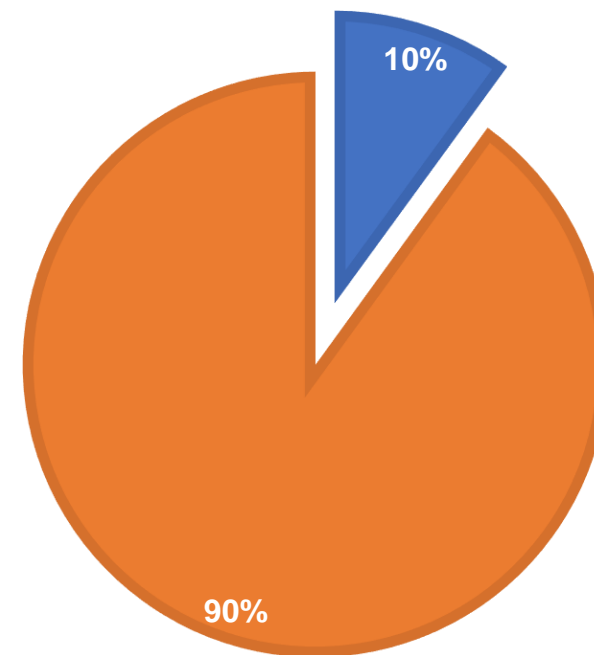
KABUL ORTHOPEDIC ORGANIZATION



Low access to AT, and then COVID-19

Pre-COVID-19

- Globally, only 10% of people had access to the AT they needed
- Post COVID-19?
 - What happened to access to AT?



Mixed methods research design



Rapid literature review



Survey

- Service data
- COVID-19 impacts



Interviews

- Experience of AT users



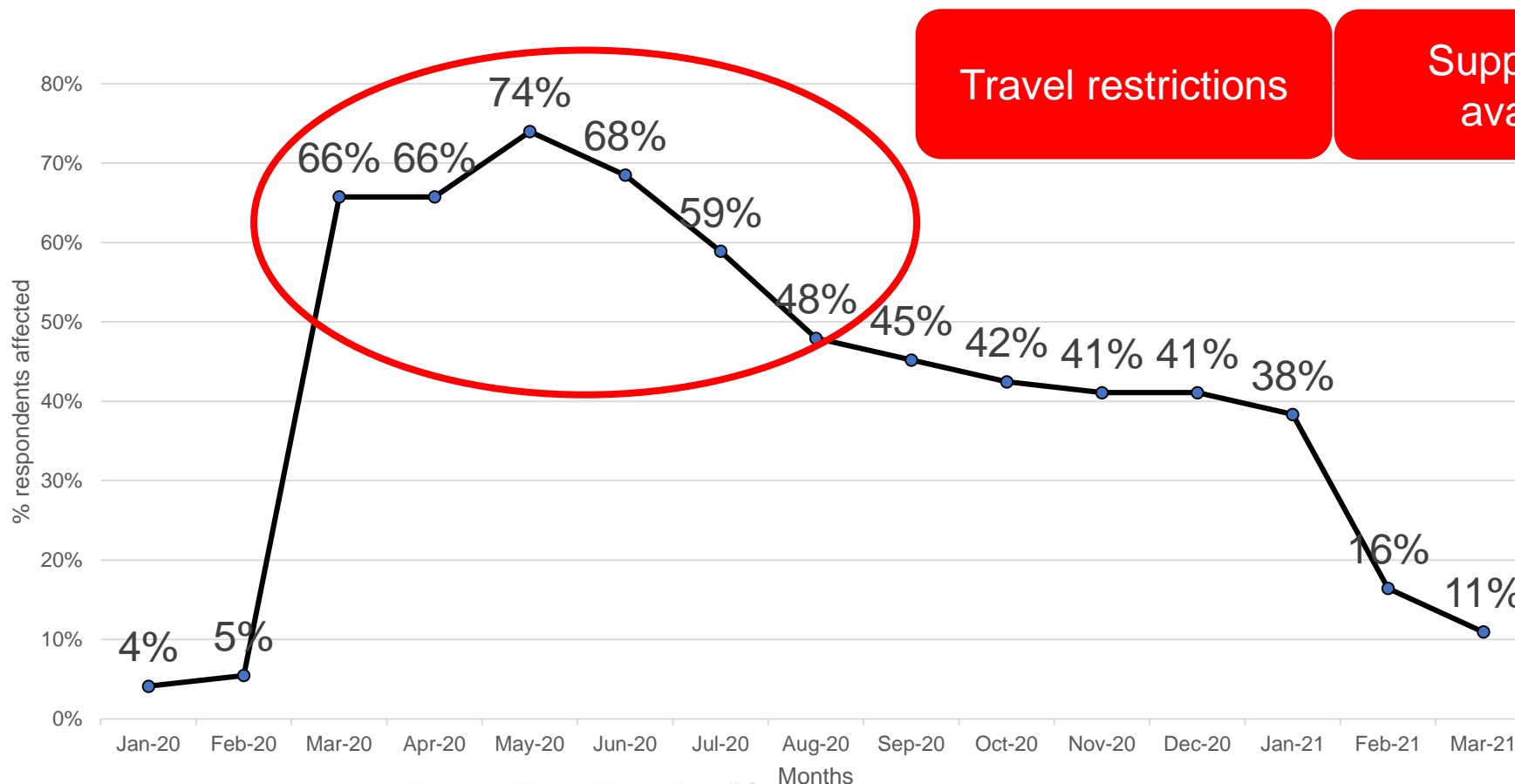
Participants

- 150+ participants
- 6 WHO Regions
- 37 AT providers



Impact on AT providers: Service data

Biggest disruption between March and August 2020



Travel restrictions

Supplies not available

Client willingness to attend in person

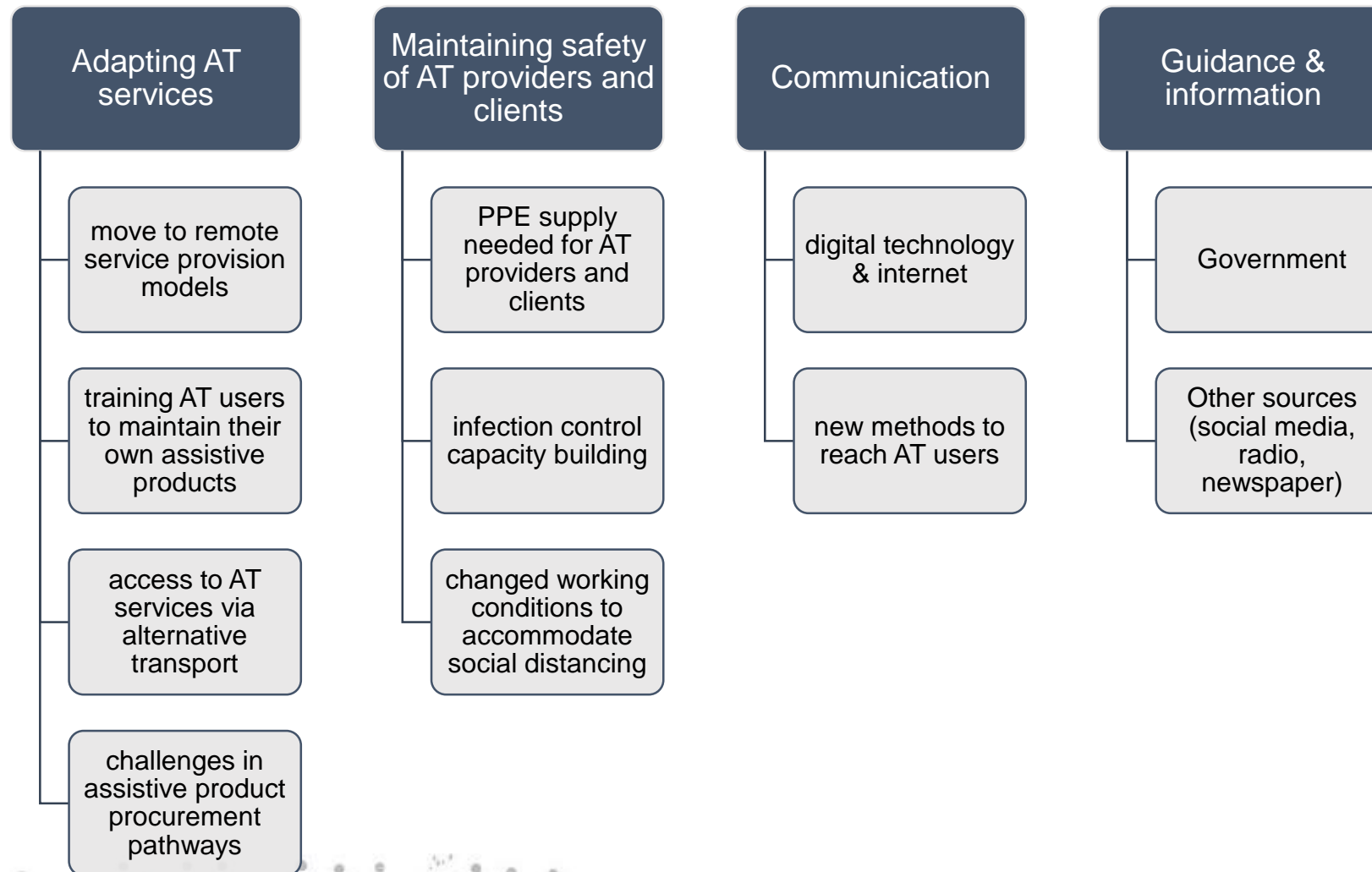
Internet and wireless communication

Changed service models

Available PPE



Thematic analysis



What AT providers said

- *We quickly adopted the strategy to provide services through **outreach** in the community through **home visits**, meeting users in the clinics of the doctors and **telerehabilitation** through various platforms (SP03, India)*
- *Provided motivation to clients: **teach how to maintain product safety** (SP02, Bangladesh)*
- *We began **pick up and dropping off programs** for our patients since lockdown affected movement by public means. It was effective since none of the patients missed out (SP01, Kenya)*

Adapting AT services

move to remote service provision models

training AT users to maintain their own assistive products

access to AT services via alternative transport

challenges in assistive product procurement pathways



What AT providers said cont

- *The coordination with Ministry of Social Development help us in **arranging the essential PPE for the staff** during the Lockdown Period. It helped us to resume the service after 1 month (SP02, Nepal)*
- *optimization of teams and schedules to **decrease contact time among patients, staff** and provided transportation (bus, train, car, taxi, etc.) (SP02, Brazil)*

Maintaining safety of AT providers and clients

PPE supply needed for AT providers and clients

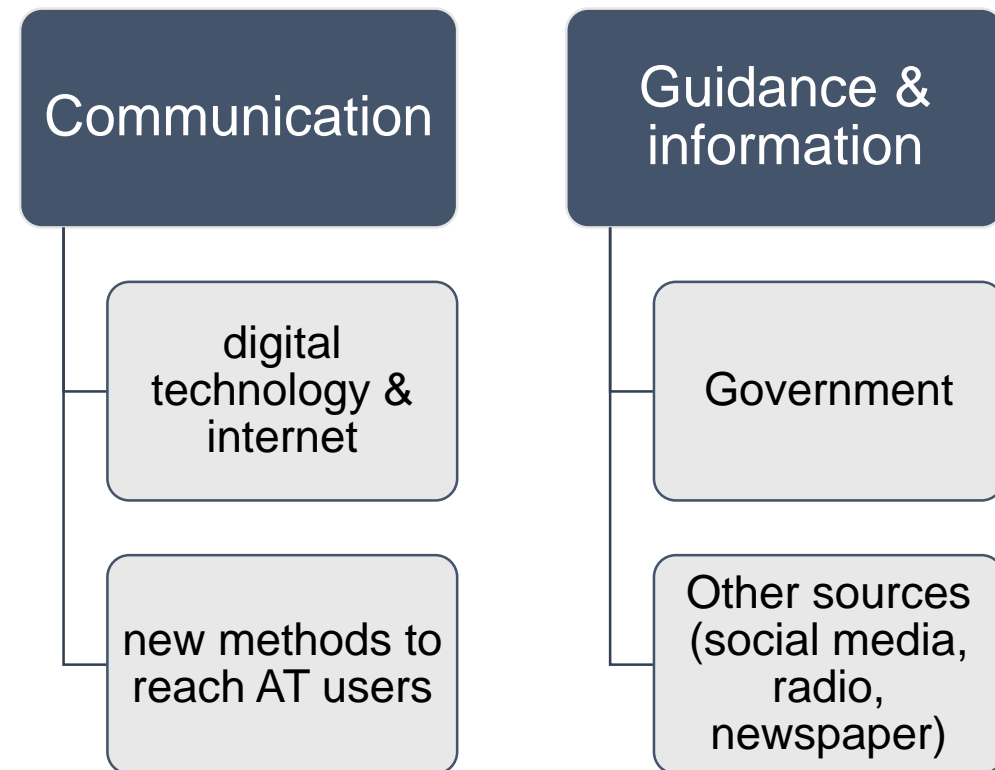
infection control capacity building

changed working conditions to accommodate social distancing



What AT providers said cont.

- **Lack of technology**, lack of smart phones with the parents of the clients, intermittent internet facility, not clear internet connections were the challenges we faced (India 01)
- **Radio messages, billboards, vehicle campaigns, follow up beneficiaries through a hotline** (SP02, Afghanistan)



Recommendations

1. Make pandemic public health responses inclusive of people who use AT

- Consult with civil society including AT users, their families and representative bodies
- Understand and mitigate against the impact health responses may have on people who use AT
- Use communication formats that ensure public health messages are accessible to all, including people with hearing or vision loss, or disabilities that impact cognition and/or communication
- Recognize information and communication technologies including smart phones, as priority assistive products.

2. Recognize AT as essential health products and services and during a pandemic or health emergency

- Keep AT services open, safe and accessible alongside other essential services
- Consult with and include AT personnel in health sector wide responses
- Provide AT personnel with infection control training and personal protective equipment
- Implement telehealth and other methods that enable services to continue during pandemic response measures such as isolation, social distancing and/or lockdown
- Prioritise continued procurement and supply of quality-assured assistive products

3. Strengthen AT services to improve preparedness for future pandemic responses

- Integrate AT services into health care systems and in particular community / primary health care
- Address access barriers and increase coverage through outreach visits, telehealth and other strategies
- Train and equip a broader range of health personnel able to provide and/or support AT use

Publications

- Puli, L. Layton, N.; Mont, D.; **Assistive Technology Provider Experiences during the COVID-19 Pandemic.** *Int. J. Environ. Res. Public Health*
- Mont, D.; Layton, N.; Puli, L.; Gupta, S.; Manlapaz, A.; Shae, K.; Tebbutt, E. Assistive Technology and Support Services During the COVID-19 global pandemic: **The Roles of Government and Civil Society in Fulfilling the Social Contract.** *Int. J. Environ. Res. Public Health* (under review).
- Layton, N.; Mont, D.; Puli, L.; Calvo, I.; Shae, K.; Tebbutt, E.; Sidiqi, M. **Access to assistive technology during the COVID-19 global pandemic: Voices of users and families.** *Int. J. Environ. Res. Public Health* (under review).



Article

Assistive Technology Provider Experiences during the COVID-19 Pandemic

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Abstract: Globally, health systems face challenges in the delivery of assistive technology (AT) and only 10% of people are currently able to access the assistive products they need. The COVID-19 pandemic presented an uncharted path for AT providers to navigate, placing them under pressure to be agile and rapidly adapt. This article, part of a series, explores the experiences and impacts of the COVID-19 pandemic on AT providers and aims to inform how AT providers can be better prepared and supported in the future. A mixed methods approach was used to gather service data and perspectives from AT providers via a survey. A total of 37 responses were received from 18 countries. Service data showed extensive service disruption throughout 2020. Thematic analysis suggested significant changes to routine AT service delivery including rapid momentum towards home-based, decentralised, and digital services for which many AT providers were not prepared. Providers were required to make difficult decisions and deliver services in new ways to balance meeting demands, complying with government restrictions, and ensuring the safety of staff and clients. Few but important positives were expressed including the belief that expanded capacity to use remote and digital AT service delivery would remain useful in the future.

Keywords: assistive technology; policy; disability; aging; assistive products; personnel; service provision; health systems; COVID-19

