

Greater Manchester Falls Prevention Awareness Week:

Online Bitesize Lunchtime Learning
session

Monday 18th September

12:05-12:20pm

The 'Keep on Keep Up' Greater Manchester Roll Out
(Dr Emma Stanmore & Dr Amelia Parchment, The University of
Manchester)

12:20-12:35pm

Wigan's Falls Prevention Strategy
(Dr Christina Heaton, Wrightington, Wigan & Leigh Teaching NHS
Foundation Trust)

12:35-12:50pm

Remote/Hybrid approaches to Falls Prevention Interventions
(Dr Helen Hawley-Hague, The University of Manchester)

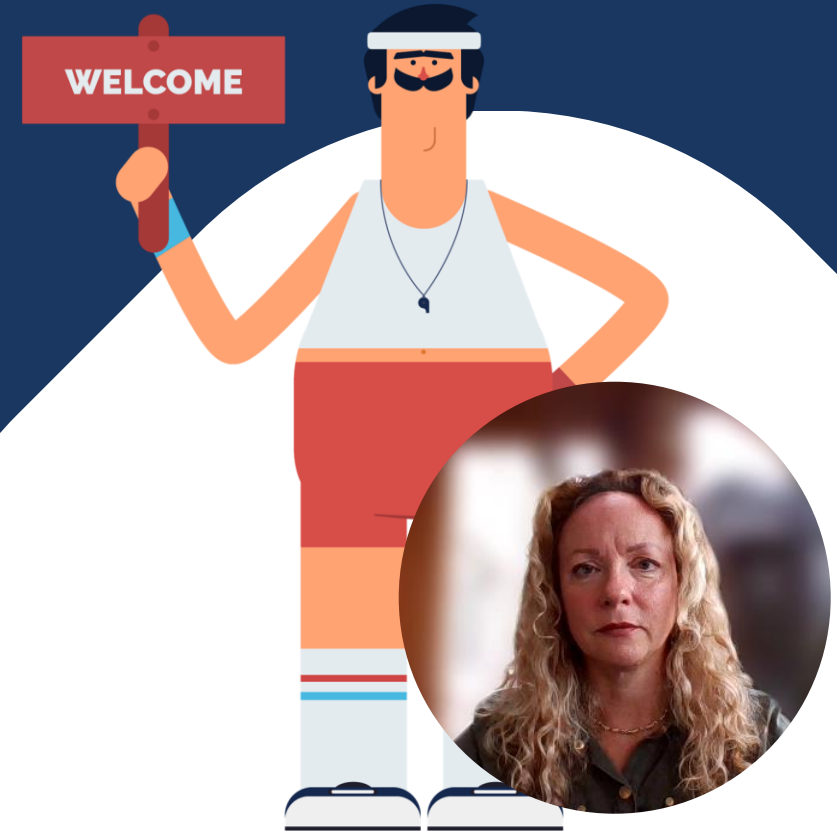


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MANCHESTER**
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KOKU

GM Scale up of Keep On Keep Up: A digital program to prevent deconditioning, falls & frailty



Dr Emma Stanmore

Reader, Healthy Ageing Research Group Lead,

Dr Amelia Parchment, Research Associate,

University of Manchester

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'KOKU - Keep On Keep Up'



Funded by:



England



Innovate UK



Health Innovation
Manchester

Discovering. Developing. Delivering.



Interdisciplinary Research Team

PI: Dr Emma Stanmore

Co-Is: Prof C Todd; Prof D Dowding; Dr R Kislov; Dr L Munford; Prof D Skelton; Dr E Vardy
RAs: Dr M Parchment; Dr S Ahmed; C French
ARC Programme Manager: Gill Littlewood

Collaborators: Reason Digital, Later Life Training (Prof Skelton, B Townley); Healthy Ageing Research Team (J Mcdermott); Dr J Chillala; C Birch, B O'Dowd, MFT Falls Prevention Team; D Wilson, Tameside Metropolitan Borough & Care Providers (Direct Care; Able Care; Creative Support; Reablement Team); CareLink (C Mynett Saltbox); T Cowie; Dr S Ahmed; Dementia United; Dr A Thompson & UoM Innovation Factory; GMHSCP; Health Innovation Manchester; Jigsaw Housing Group

KOKU Health Team

E Cox; T Walker; Later Life Training



MANCHESTER
1824

The University of Manchester

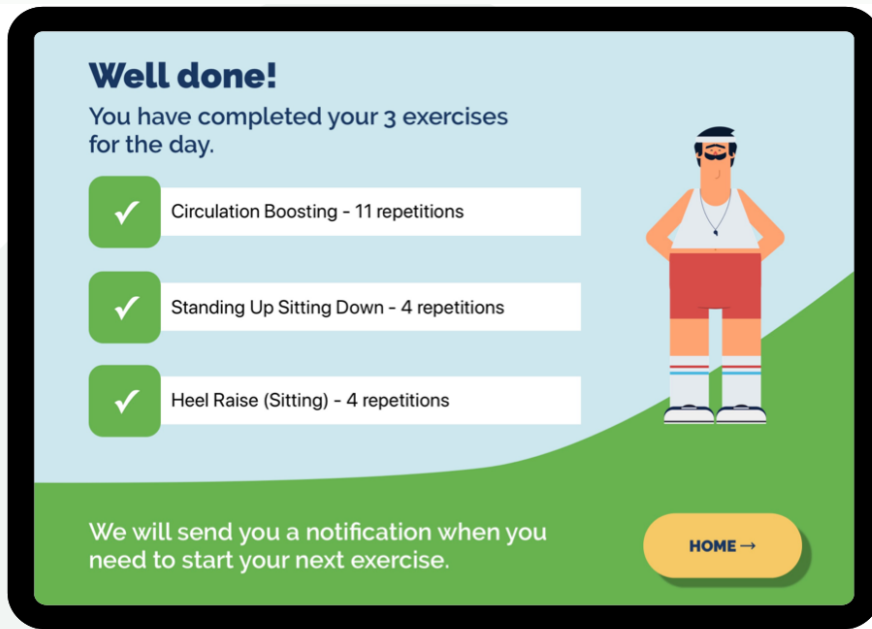
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Reason



KOKU

- a Digital Strength & Balance Program
with healthy literacy games



Developed with older people *for* older people

1. Reduces falls

by 1/3 through OTAGO/FaME strength & balance exercises, home hazard, hydration and bone health awareness

2. Increases engagement

through personalised & progressive exercise plan & gamification (feedback, progression, rewards); high usability & acceptability results from clinical trials

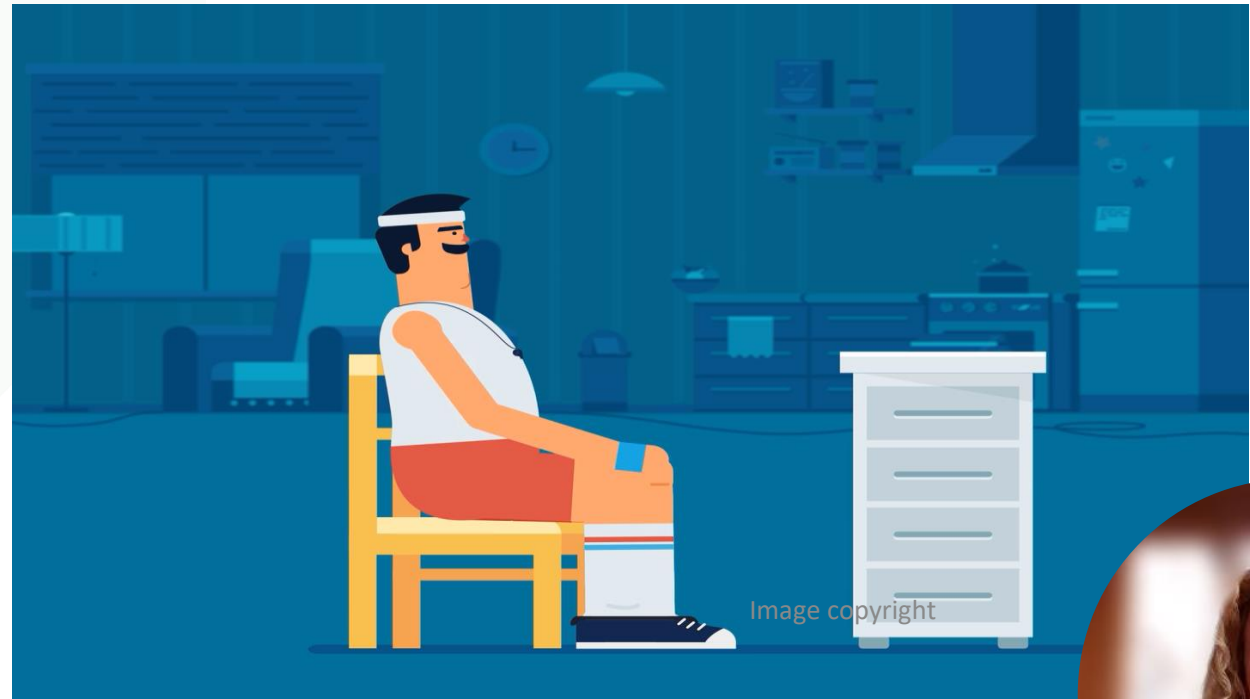
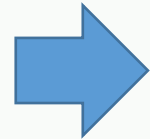
3. Advantages

Self-manageable, scalable, accessible, and user friendly



FaME/OTAGO-based strength & balance exercises

From expert input to animation



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Personalised

Proven and progressive strength and balance training using a clinically validated programme that improves function and reduces falls by a third. Self-manageable – no need for clinicians, for those unfamiliar with using tablet/iPads we have produced a step-by-step instruction video.

4 Tap which best describes you.

Rising from a chair is difficult and I use my arms to help me. I use a walking aid at home, and I have some concerns about my balance.

I can rise from a chair without using my arms, but I choose to use them. I move around my home without a walking aid. Sometimes I use the furniture.

I can rise from a chair without using my arms. I have no concerns with balance when walking around my home.

I can rise from chair easily. I have a good balance and I can walk without a walking aid.

OK →





Gamified

Gamified health literacy to nudge behaviour and inform about evidence based wellbeing practices to improve bone density, home safety, hydration and diet specific to the needs of an older generation. Embedded health behaviour change theory (nudges, feedback, progress charts, rewards) to encourage engagement and adherence.



TODAY YOUR PROGRESS GAMES EXERCISES

John's Exercises

Programme 1

You have finished 0 exercises in this session
3 more to go!

- TO DO
Circulation Boosting
- TO DO
Standing Up
Sitting Down
- TO DO
Heel Raise (Sitting)

Validated

Validated questionnaires to measure outcomes and impact on users. Trusted by NHSX who have assessed and certified KOKU as compliant with DCB0160 and DCB 0129 safety and regulatory approvals as a low risk app. Completed clinical trials in UK and US that demonstrate high usability, acceptability and improvements in balance, strength, confidence and mobility after 6 weeks use.



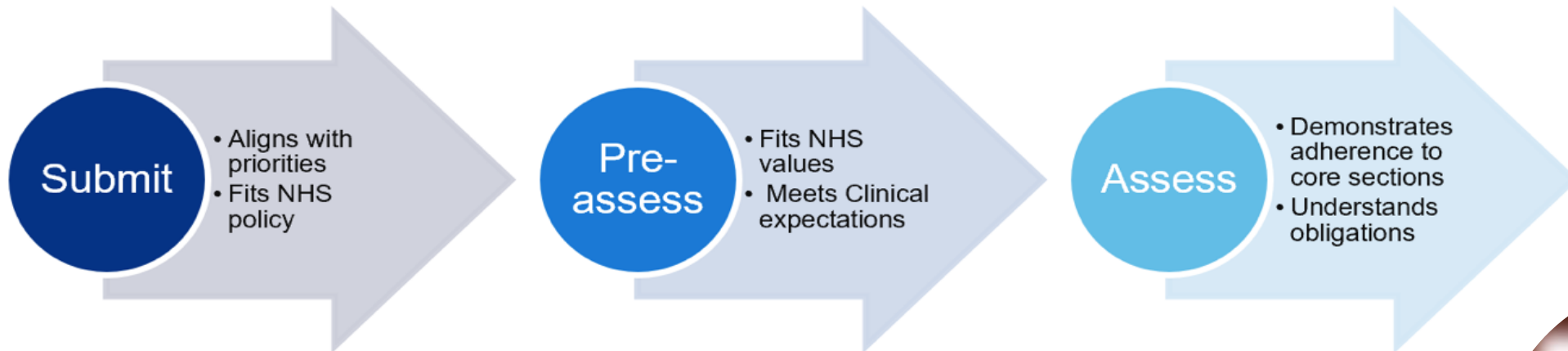
Regulatory approval process



The worlds leading digital health review platform scored us at:

84%  ORCHA

Making us the top wellbeing and falls prevention for NHS approve applications



DCB0160 and DCB 0129 (consistent with EU Regulations on Medical Devices)

NICE

[NICE evidence standards framework for Digital health Technologies \(2021\)](#)



Digital inclusion:

Available for both iOS & Android devices to widen access to those with different devices

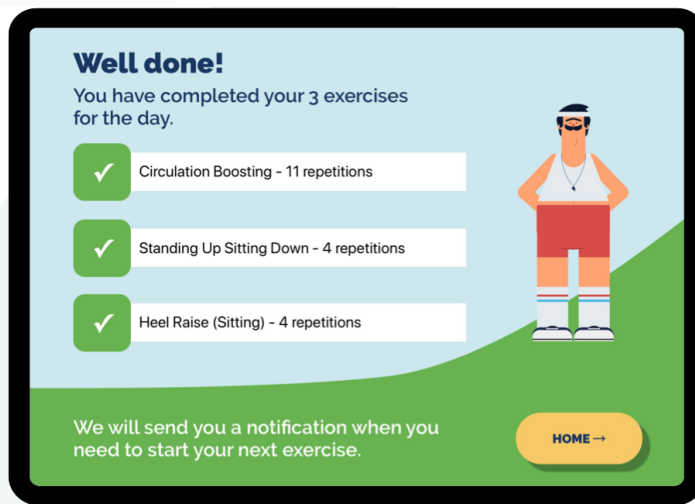
Available in English, Spanish, Danish, Norwegian, Urdu, German & Mandarin

KOKU has written, audio & animated instructions built into the system plus simple instruction manuals & videos to aid access and uptake.

Users have included older adults from deprived, socially isolated communities who are digitally marginalised

Users have included participants with visual or hearing impairments as well as a range of co-morbidities





USER CENTERED DESIGN

Focus Groups &
prior research

Iterative Testing
Agile design

EVALUATION

Usability, acceptability &
Feasibility (high scores)

6/12 weeks unsupervised

4 Mixed methods studies
UK, US, NORWAY

Iterative development and feedback
older adults aged 55-102

IMPLEMENTATION

Implementation study
via Social Care providers

NASSS Theoretical
Questionnaire
assessments (n=47)
Interviews (n=10)



Who is KOKU suitable for?

KOKU users have been aged between 56 and 102!

Can be used independently for those able to safely use an iPad/Tablet (with carer/family support if needed)

Many users have a range of long-term conditions but should not be medically unstable or acutely unwell (if unsure check with GP)

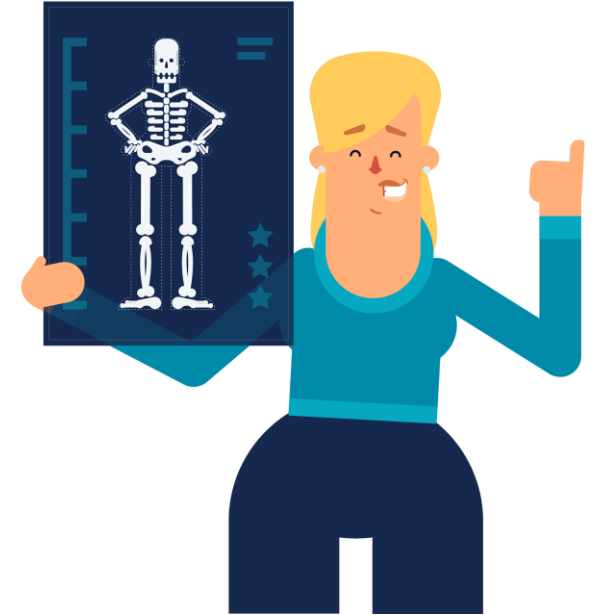
Some mobility is needed so KOKU is not suitable for people who use wheelchairs fulltime for mobility needs

NOT to replace a therapist and if used in conjunction with a rehab programme this should be under the direction of a therapist



NHS England funding

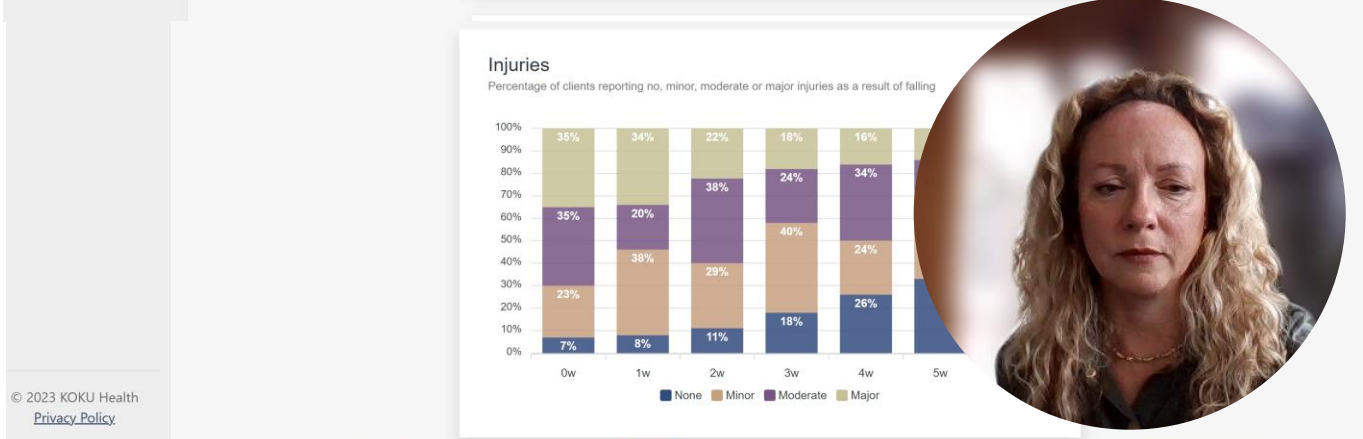
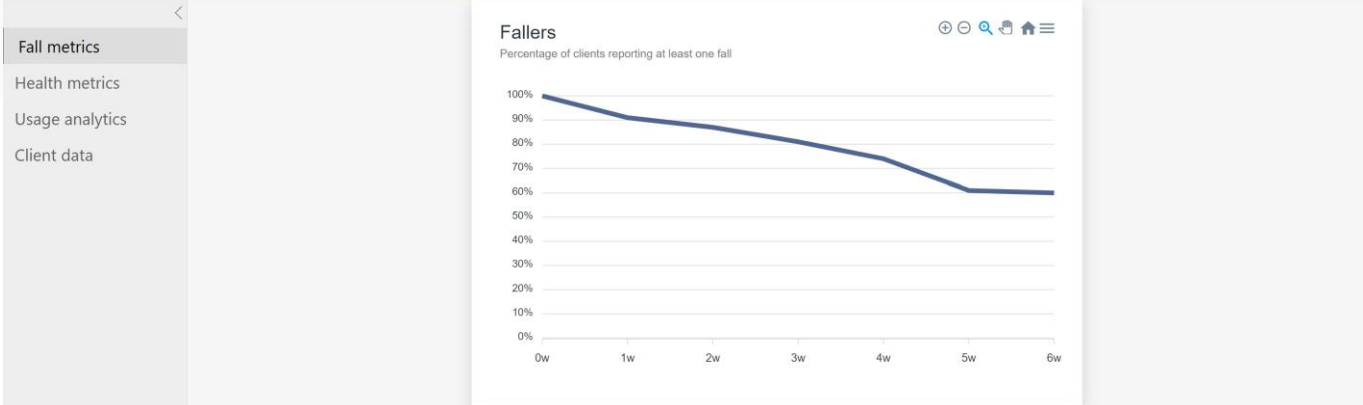
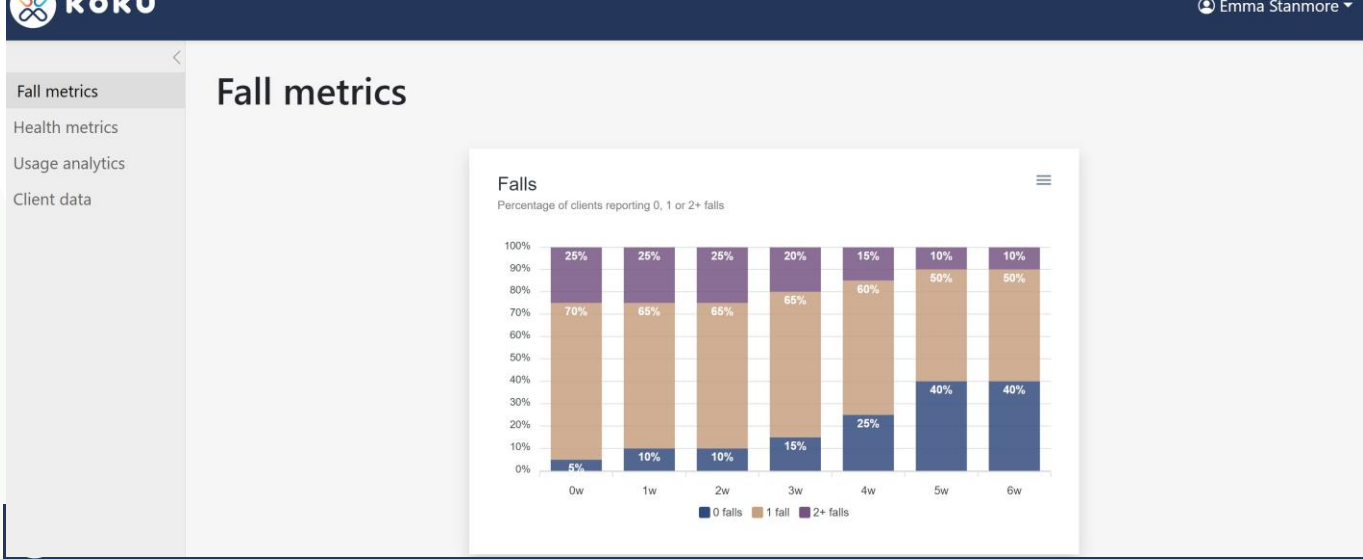
- GM Scale up to 500 people
- User case studies
- Learnings for further scale up
- Data dashboard for future analysis of falls and progress



Engl



KOKU dashboard design based on stakeholder workshops x 5 plus expert input to agree metrics & features



Please sign in

Email address

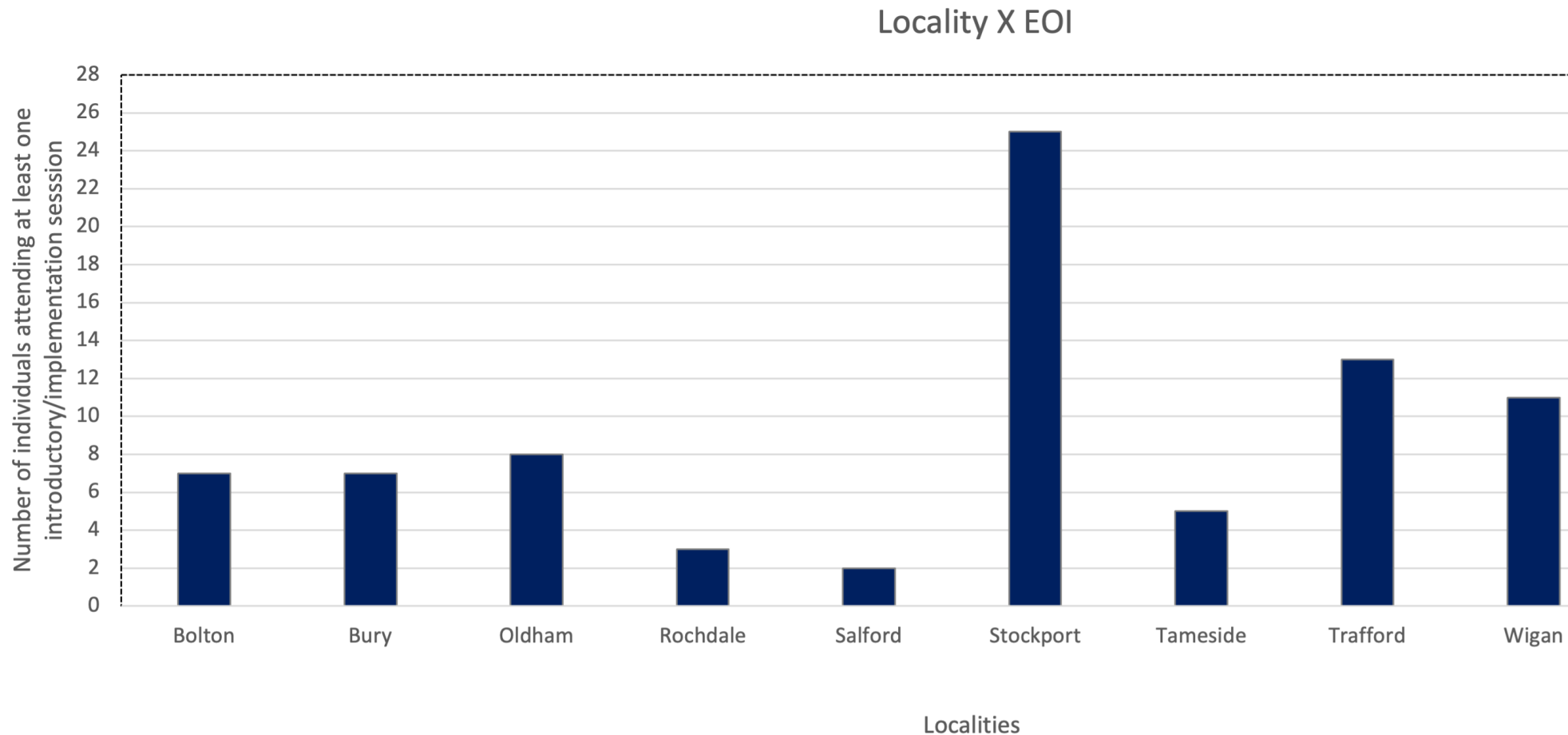
Password

Keep me signed in

[Sign in](#)

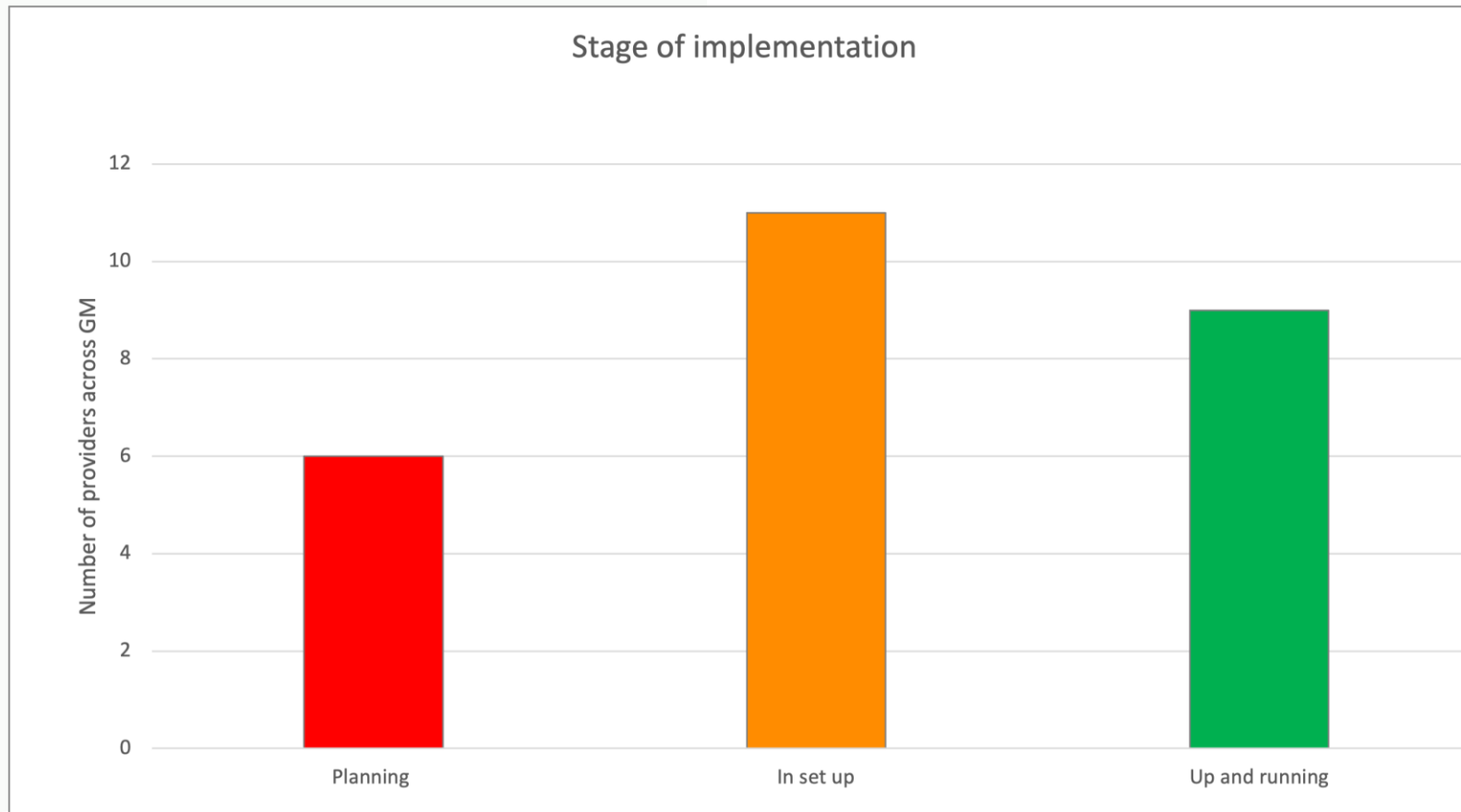
Expressions of interest across GM

Total n=102 individuals from a range of sectors and providers across GM have attended KOKU introductory/ implementation sessions since March 2023.

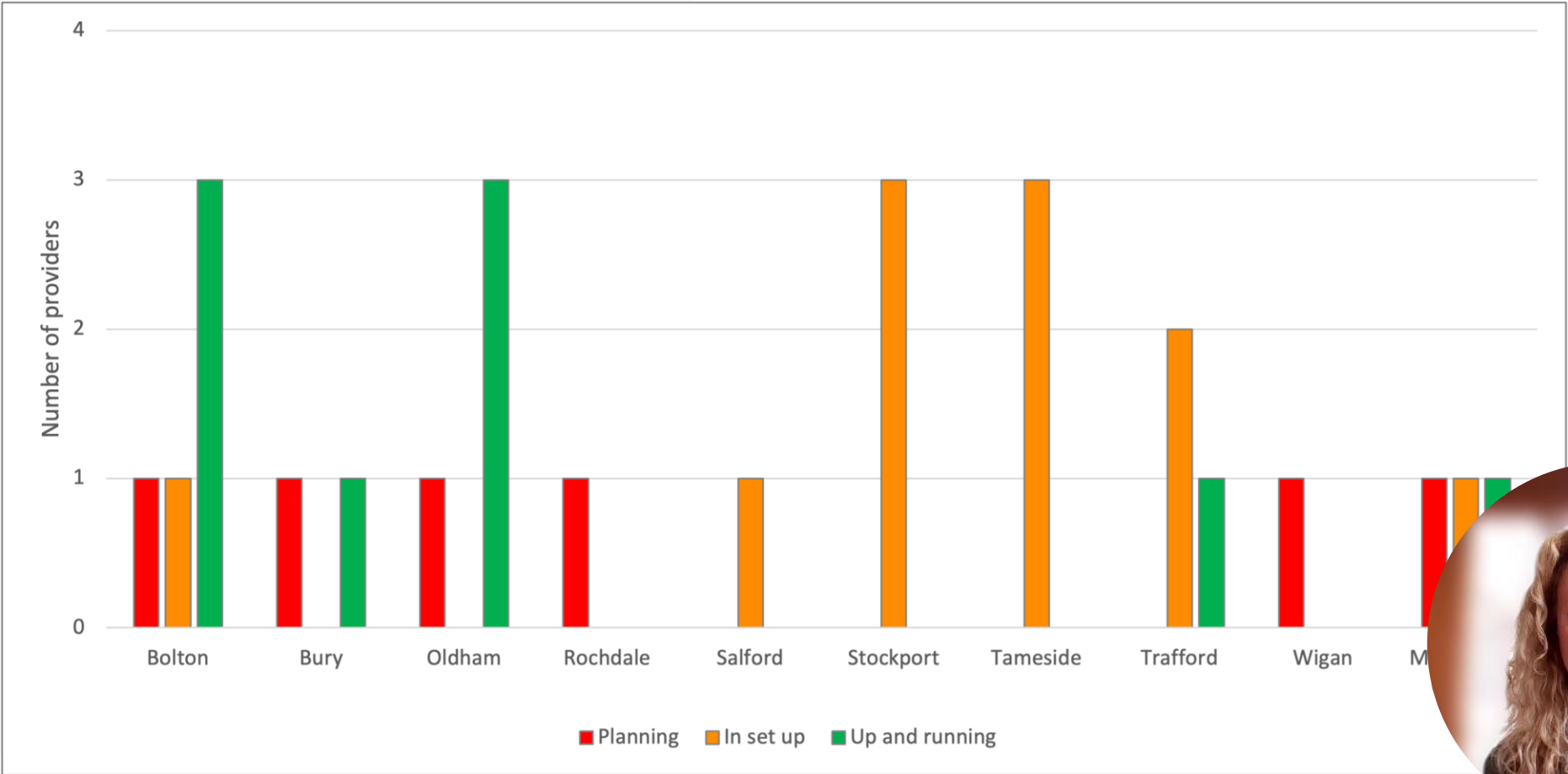


Stage of KOKU implementation across GM

Total n= 26 providers across GM are currently in the planning (n=6), set up (n=11) or up and running stages (n=9) of KOKU implementation.



Stage of KOKU implementation across GM localities



User case studies: BURY

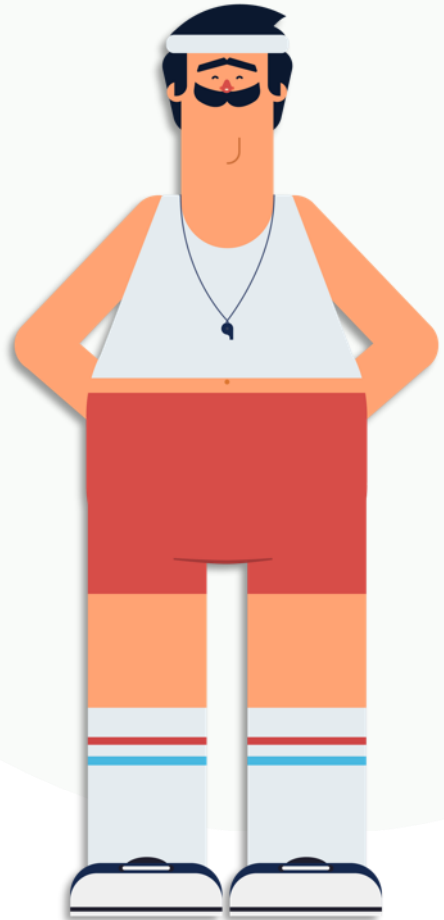
The Federation of Jewish Services (KOKU up and running)

- Social care charity for the Greater Manchester Jewish Community
- Offers a wide range of specialist services for older adults
- Support approximately 1300 individuals per month and house 157 residents and tenants at Heathlands Village.



- KOKU champions, a KOKU lead and a KOKU device manager have been selected to facilitate successful implementation.
- Volunteers have also been identified to 'buddy up' with residents and clients and work together through the KOKU 12-week programme.
- KOKU training has been delivered to staff members in order to increase confidence and competence in supporting older users to engage in the KOKU programme.
- Ten eligible residents living at Heathlands Village have expressed interest in initially trialling KOKU.
- The FED is organising a celebratory event for residents who complete the KOKU 12-week programme and further scale up is planned across their residential and community services if this initial trial is successful.





“The app and research sounds absolutely brilliant. I have shared the information widely across our organisation and lots of people are coming back to me to say they have staff who could be champions and they would LOVE to get involved. We have 170 people who live at Heathlands Village as residents or tenants and lots of these people would love to do something like this.”

“This was a very interesting app and we are keen to use it on site to see if we can reduce falls... We have a lot of data on people who fall, and the hope is that we can reduce the number of falls. This could have quite an impact as falls often lead to hospital admission and can precipitate further deterioration.”



User case studies: MANCHESTER CENTRAL

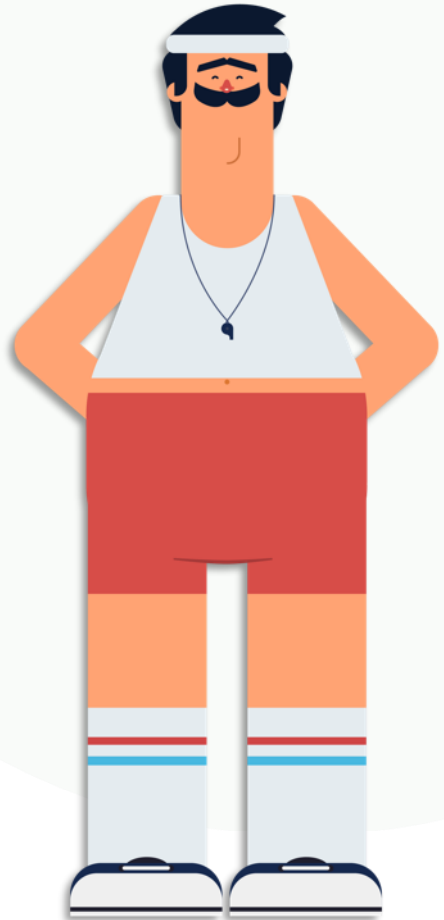
African Caribbean Care Group (KOKU in set up)

- A registered charity offering a day care and community service for people aged 50 and over
 - Primarily for African Caribbean people
- Support people with increasing high level of need, enabling them to maintain connections and social contact within the community



- The ACCG have identified a team of colleagues (including activity coordinators, digital champions and a service manager) to champion KOKU implementation.
- They plan to launch KOKU within their day care service to promote strength and balance in the older adults they work with from October 2023.
- The University of Manchester is currently liaising with the ACCG to arrange the transfer of funding for ten digital devices to support implementation.





“The initial plan was for a small focus group (between 5-10 individuals) to ascertain feedback and to develop a case study however, we plan to discuss this with service users in the coming Community Meeting therefore the demand will likely be higher when it is released for all members and day care service users.”

“We can’t wait to launch this and demonstrate KOKU to our older adults at the event we are hosting for International Older People’s Day”



User case studies: STOCKPORT



1. Age UK Stockport (KOKU in set up)
2. Stockport Homes (KOKU in set up)
3. Viaduct Care (KOKU in set up)

- Age UK Stockport is an independent local charity, working in the local community to support older people, their families and carers
- Stockport Homes manage the housing stock owned by Stockport Council. Their independent living services support older people to stay independent for as long as possible
-
- Viaduct Care is a not-for-profit GP Federation, owned by 33 GP practices across Stockport



- Commissioners, members of digital inclusion teams, and staff from several health and social care providers attended KOKU sessions.
- Digiknow/Start Point is a digital inclusion charity that have agreed to manage devices funded by the University of Manchester for KOKU use in Stockport.
- Age UK Stockport plan to implement KOKU across a number of services offered to older adults, including “confidence walks” and their discharge from hospital service.
- Stockport Homes plan to implement KOKU with older adults within their independent living services.
- Viaduct Care plan .to implement KOKU with older adults within their self-care and wellbeing support service and social prescribing work.



Any questions – please forward



More information is available at

<https://kokuhealth.com/>

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Wigan Strategy for the Prevention and Management of Falls and Bone Health

Dr Christina Heaton, Consultant Nurse Falls & Bone Health Wrightington, Wigan & Leigh Teaching NHS Trust, NMAHP Clinical Research Lead, NIHR Senior Research Leader Programme 2023

Niamh Kearney Enhanced Service Manager- Early Intervention Wigan Council



Population figures

- As a borough we have the highest % of people aged over 65 in Greater Manchester and over next 15 years the 85+ population will have grown by 65%
- 52 Care homes, with 2200 beds, by 26 operators
- Wigan is a high volume user of care home support – 93% occupancy
- Only 20% of population who fall, contact Health & Social professional (of these on 35% attend hospital)



Case for change



2017-22 Wigan is the highest admission rates following a fall in GM .

Year	Number of hospital admissions over 50yrs due to falls	% Had fractured	% fractures neck of Femur	% Died as a result
2018/19	2557	43.6	32.4	4.02
2019/20	2666 ↑	42.5 ↓	32.1 ↓	5.2 ↑
2020/21	2957 ↑	37.9 ↓	31.9 ↓	5.37 ↑
2021/22	3077 ↑	37.2 ↓	34.6 ↑	5 ↓
2022 / 23	2780 ↓	40.1 ↑	34.3 ↓	5.46 ↑

18/19 Wigan had the lowest Preventable Mortality from falls in Greater Manchester at 14.8, which puts us in line with the National average



What we did?



Falls Strategy



Operational guide

Falls Conversation



Adobe Acrobat
Document



Microsoft Word
Document

- Replaces the FRAT risk assessment tool
- Have developed a single question about falls
- Encourages everyone to have a conversation about falls, changing the narrative
- Rolled out training for this via short video

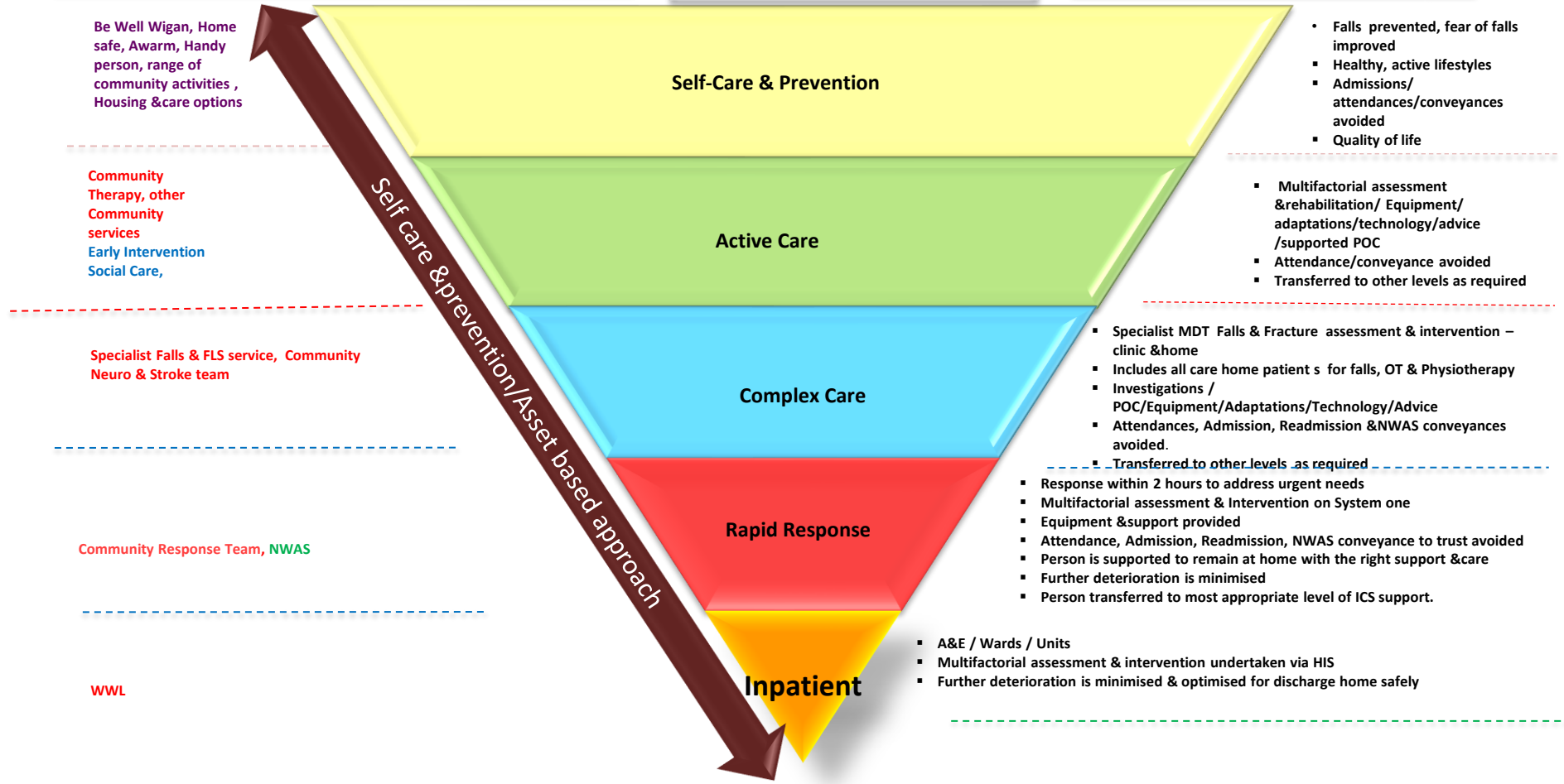
Evidence based Multifactorial Falls Assessment and Intervention

- Evidence based assessment and intervention supported by NICE guidance (2013)
- Specialist trained staff across health & social care providers to be able to completed a falls multifactorial assessment, commence or refer for appropriate interventions

Wigan Falls & Bone health Pathway

Who delivers? **NWAS, Council, WWL, VCSE**

What is the impact?



Wigan Reduction Of Long Lies (WROLL) 6 months (Sept 22-Feb 23) PILOT by Community REACT team (CRT)

- 364 referrals of which 295 appropriate (81%)
- 177 out of the 295 were out of hours (between 6pm and 07.59am (60%))
- 20% of appropriate referrals were responded to by CRT
- 16.2% of appropriate referrals unable to be seen due to existing CRT workload
- 2.4% patients managed themselves and not requiring CRT or NWS
- 1.4% ambulance response quicker than CRT
- 51% admissions avoided. 100% reduction of longer lies

Training provided so far...

Falls conversation training film

- Be Well, Age UK, Community Link workers, Care co-ordinators, Reablement, Pensioners link, AT Wardens, EIT staff & Health route, Public health Outreach workers
- Falls prevention training (2023)-Primary care, Practice nurse, ACP & FCP

Falls specialist MFA training (2018-23)

- CRT (94), CTT(34), Stroke & Neuro Team (33), EIT OT's/PA's (50), Falls clinic & FLS team (6), Heart failure team (7), IMC Therapists (9), Acute Therapy staff (70)



Falls dashboard

Pathways

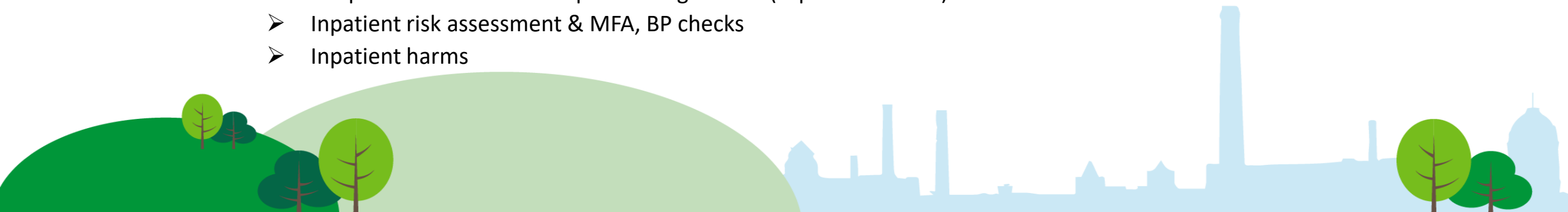
- Number of people assessed by service at INITIAL ASSESSMENT per level
- Number of Falls Conversations by volume of assessments undertaken per level in Community levels
- Falls Multifactorial Assessments (MFA) by volume of assessments undertaken per level in Community services
- Two yearly Clinical audit of all levels
- Quarterly Case study form each level

People

- Outcome measures
- Feedback form in development
- Council only- Volume & type of formal support adaption & equipment for care package in place for people as a result of falls or at risk of falls. Percentage of people where unnecessary use of health & social care services has reduced

Hospital

- Admissions
- Hospital Avoidance due to pilot Lifting service (sept 23 onwards)
- Inpatient risk assessment & MFA, BP checks
- Inpatient harms



Ongoing developments

- Care home provision & workshop, need for specialist Falls team
- Falls dashboard requires ongoing development & analysis of 22/23 data to set targets
- GM Falls Collaborative work



References

- NICE guidance <http://www.nice.org.uk/guidance/cg146>
- NICE (2004) National Institute for Clinical Excellence Clinical Guidance 21: Clinical practice guideline for the assessment and prevention of falls in older people. DOH
- NICE (2013) National Institute for Clinical Excellence Clinical Guidance 161: Clinical practice guideline for the assessment and prevention of falls in older people. DOH (accessed 10/5/15) from <http://www.nice.org.uk/guidance/cg161>
- NICE (2015) Falls in older people 86 Quality Standard. DOH (accessed 1/5/2018) https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/586382/falls_and_fractures_consensus_statement.pdf

Thank you any questions?



The delivery of strength and balance using hybrid approaches

Dr Helen Hawley-Hague
Senior Lecturer
University of Manchester

Why remote/hybrid?

- Otago and FaME two evidence-based programmes used in the UK are delivered in rehabilitation and community settings.
- Health authorities claim to provide FaME, but modification of the programme, in terms of dose (duration, frequency) and progression, is common (Orton et al, 2021; RCP, 2012).
- Technology provides opportunity to support dose, adherence and fidelity. FaME and Otago should be tailored, personalised and individualised. **This often needs a person involved to achieve this.**
- FLEXI study has shown issues with capacity for delivery and maintenance of FaME and some use of remote to support this.
- The Covid19 pandemic demonstrated that remote/hybrid delivery of physiotherapy, rehabilitation and exercise was possible.
- **What evidence do we have for remote methods related to falls/delivery to older adults?**

1. Rapid Scoping Review

Hawley-Hague et al, 2022 <https://www.tandfonline.com/doi/full/10.1080/09638288.2022.2138574>

- Benefits



- Barriers



Conclusions

- Strong evidence around cardiac, stroke and MSK- evidence from systematic reviews.
- Mix of interventions across populations and different study designs, difficult to come to firm conclusions.
- **Very little** UK based delivery by actual services.
- Often proved to be **equivalent** to standard care.
- No adverse events reported
- Remote physiotherapy less costly and involved less health resource. **However**, cost-effectiveness has not been addressed

Older people specific

- Very little around older adults' rehabilitation and falls.
- Findings within these papers are similar.
- There is some evidence around remote delivery of Tai Chi.



2. Teleconferencing for falls rehabilitation

Q. Could it help support progression and exercise dose?

Q. Could group based teleconferencing support adherence and/or transition to face to face groups?

Methods


Pre-COVID recruiting 7 patients and one falls service for testing. The service asked patients as they first presented. Focus groups with 2 other services about concept.

Findings

- It was acceptable to patients and health professionals
- Issues with reliability of equipment related to lack of WIFI
- View, positioning and safety
- Digital exclusion
- Group based teleconferencing presented more challenges!!!

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7837999/>

Hawley-Hague et al, Journal of Rehabilitation and Assistive Technologies
<https://rehab.jmir.org/2021/1/e19690>

11:53    74% 
For your security, you've been signed out. Sign back in to continue using Skype.



Welcome to Skype

Free HD video and voice calls
anywhere in the world.

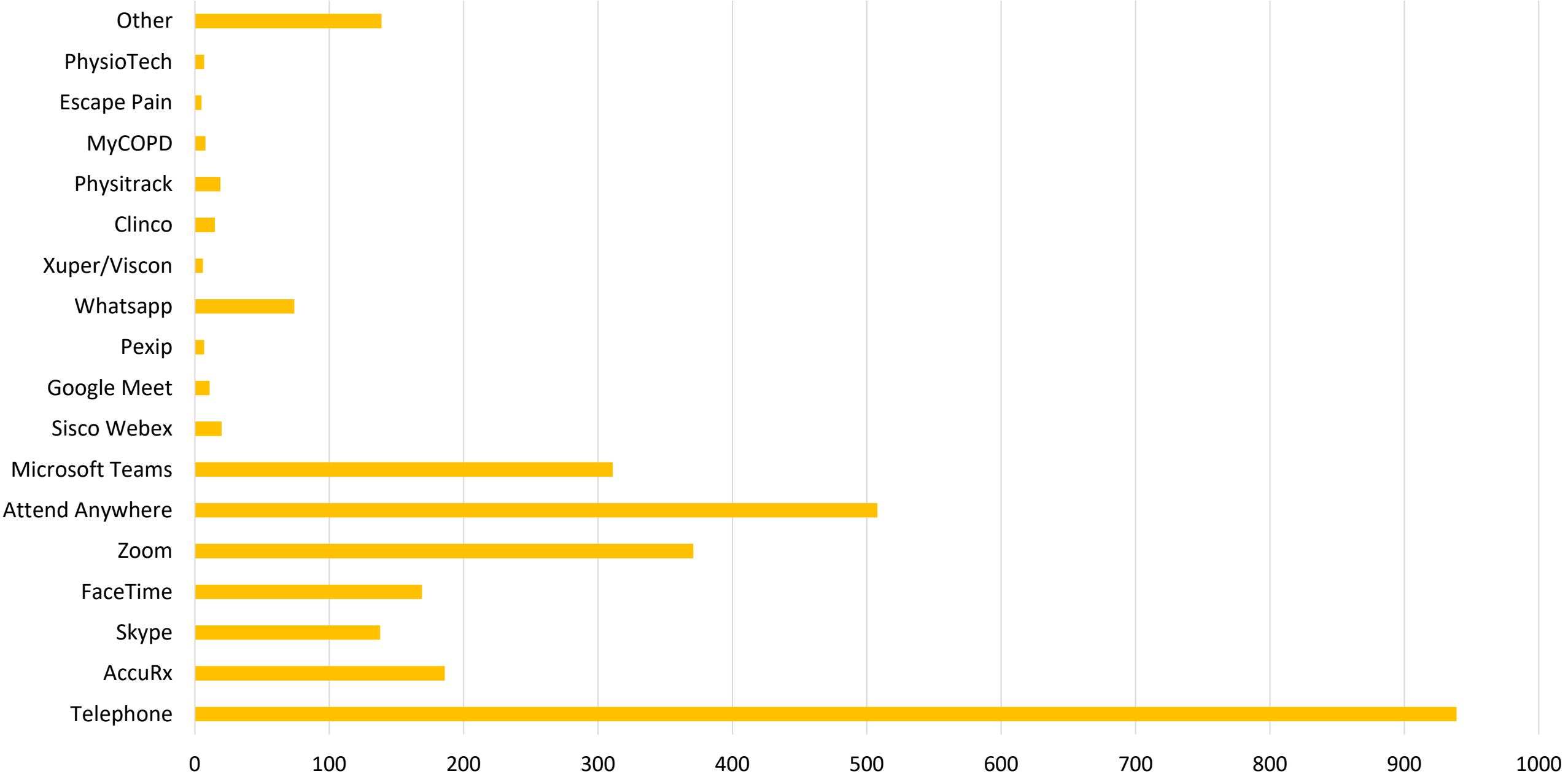
Let's go



3. The UK wide Survey of Physiotherapy Service leads

Helen Hawley-Hague et al (2023) Exploring the delivery of remote physiotherapy during the COVID-19 pandemic: UK wide service evaluation, Physiotherapy Theory and Practice, DOI: [10.1080/09593985.2023.2247069](https://doi.org/10.1080/09593985.2023.2247069)

Platforms/apps used



Purpose of remote delivery

	Number of services (percentage of services)
As part of the initial assessment	1105 (83%)
Follow up and progress treatment	1004 (76%)
Prescribe exercise	982 (74%)
Monitor and review progress	984 (74%)
To provide self-management support	922 (70%)
Screening and triage	882 (67%)
Deliver advice e.g. health promotion advice, safe transfer advice.	851 (64%)
Goal setting including review and progression of goals	831 (63%)
Deliver exercise one to one	776 (59%)
Deliver education one to one	747 (56%)
Evaluation of outcomes/ treatment effectiveness	663 (50%)
Assess and review use of equipment	277 (21%)
Deliver group exercise	222 (17%)
Deliver education in a group	155 (12%)
To help with remote delivery tool e.g. session to specifically aid with the technology	155 (9%)
Other	75 (6%)

4. Falls Specific

- 151 falls services or services delivering services including falls
- 68 came across challenges and 8 of these services said challenges could not be overcome.
- A large number of older adults' services were redeployed OR still allowed to see patients face to face.

Challenges included:

X Access to wifi, equipment and sensory limitations.

X Technical infrastructure in buildings for staff.

X Familiarity with platform is an issue (not such an issue for non-NHS??)

✓ Follow-ups and triage but

X Issues with assessment, cognition and requires help from family.

x Worry about what will be missed (this is across the board not just for falls!)

x Patients receptive only as a 'stop gap'

x Importance of seeing actual environment f2f

✓ X Enhances rather than replaces f2f.

Falls case study

- Falls service developed a six-week virtual exercise programme.
- Falls education and exercises for strength, balance, endurance, bone health and agility. Created supplementary resources for participants.
- Each remote exercise session initially involved one therapist, one rehab assistant and up to five patients.
- The exercise programme followed an initial remote assessment, or an in-person home visit
- An “induction” session was developed to familiarise patients with the videoconferencing platform and what to expect during the programme. A careful risk assessment was also undertaken, ensuring support plans were in place.

Being prepared, trouble shooting and practicing were all essential to ensure that the group delivered was safe, effective and enjoyable, “We made sure there was support available if an adverse event were to occur e.g. pendant alarm, phone nearby, family aware that patient was exercising”.

Outcomes reported

- Demographics of people attending in-person or remotely were similar (Mean age 77 years, range 43–97 years and 79, range 47–90 years respectively).
- Uptake/Attendance/adherence
Attendance at both remote and in-person programmes were good but slightly better for remote delivery (90% vs 75% respectively). Six (26%) patients dropped out of the remote classes because they were unwell, had poor connection or left the country. 82% of patients completed the remote programme and progressed onto community-based exercise facilities compared to 76% of in-person classes.

“You have created a warm club-like weekly get-together full of such useful tips! To say nothing of the exercises which have certainly shone a light on my problem areas”.

Outcomes

- Two-thirds of patients were assessed in-person using Berg Balance Scale (BBS), 30 second Sit to Stand and FES-I so compare outcomes for the remote and in-person service.

	Remote service N=23	In-person service N=66
Berg Balance Scale Mean at baseline (point change at discharge)	Mean 45 (3)	Mean 41 (7)
30 seconds sit to stand Mean at baseline (point change at discharge)	Mean: 7 (3)	Mean: 8 (2)
Falls Efficacy Scale (FES-1) Mean at baseline (point change at discharge)	Mean: 15 (4)	Mean: 14 (1)

Patient outcomes*

*Data presented is in the format shared by the service and standard deviations (SD) are not available. The evaluation team have not had access to the raw data.

Conclusions and next steps

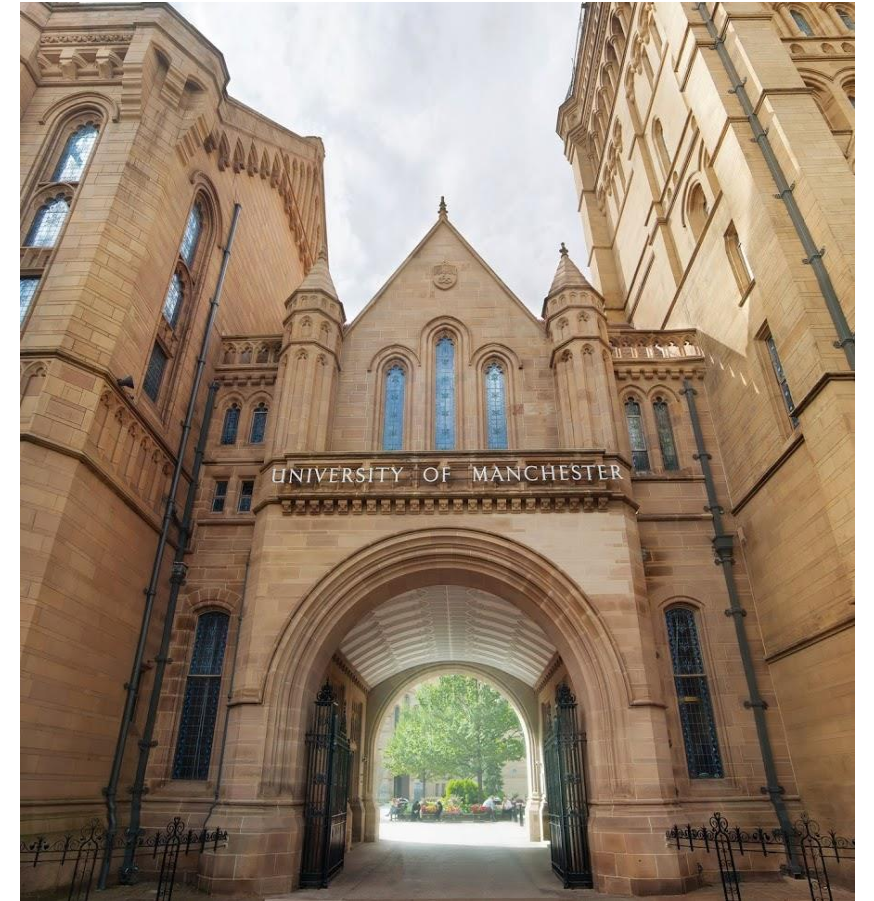
- Effective leadership, appropriate resources, flexible approach and thorough planning are essential for success.
- No evidence that remote/blended delivery is unsafe or less effective than in person.
- Remote should become an important (but not the only option) part of the 'toolkit'. Particularly useful for triage, history taking and follow up appointments for those without complex needs
- Remote can increase reach and outcomes for some people, but not all.
- Blended approach is recommended – to enable access for as many people as possible; as much as possible; in whichever way suits them best
- **Put a patient/person-centred approach at the centre of decision making.**

NEXT STEPS

- FaME Review- only one paper covers teleconferencing
- Exploring whether technology can improve uptake and adherence particularly with men.
- Important we consider right person, right technology, right intervention and right time.

Contact details:

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@DrHawleyHague



Useful resources and other research

- LLT : <https://www.laterlifetraining.co.uk/llt-guidance-in-response-to-covid-19-fame-oep-delivered-as-virtual-exercise-programmes-home-alone-guidance/>
- Chartered Society of Physiotherapy: <https://www.csp.org.uk/news/coronavirus/remote-service-delivery-options>
- University of Oxford <https://www.phc.ox.ac.uk/research/resources/video-consulting-in-the-nhs>
- University of Plymouth: <https://www.plymouth.ac.uk/research/centre-for-health-technology/remote-assessment-and-management-of-people-with-movement-impairment-and-disability>

Thank you for attending the session 😊

The recording and slides from today will be available soon.

For any questions and feedback, please do email me on:

Bethany.mitchell@greatermanchester-ca.gov.uk



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