

Walking based interventions: a dual approach to manage longterm health conditions (LTCs)

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Plan

- **Background**
- Walking studies overview
- Study findings
- Take home message

Globally

- More people living with some form of disability/longterm condition than ever before

■ 63%↑ in a decade

Global estimates of the need for rehabilitation based on the Global Burden of Disease study 2019: a systematic analysis for the Global Burden of Disease Study 2019

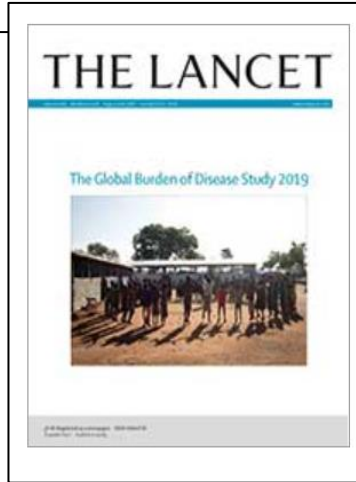
Alarcos Cieza, Kate Causey, Kaloyan Kamenov, Sarah Wulf Hanson, Somnath Chatterji, Theo Vos

Summary

Background Rehabilitation has often been seen as a disability-specific service needed by only few of the population. Despite its individual and societal benefits, rehabilitation has not been prioritised in countries and is under-resourced. We present global, regional, and country data for the number of people who would benefit from rehabilitation at least once during the course of their disabling illness or injury.



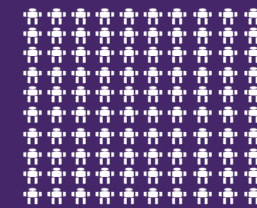
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See Online/Comment
<https://doi.org/10.1016/>



- People with longterm conditions: at increased risk of other health problems
 - E.g. SMI: 1.4-2 times higher
- Multiple factors including lifestyle/physical activity levels (Muckelt et al, 2020)

PHYSICAL HEALTH RISKS FOR PEOPLE WITH SEVERE MENTAL HEALTH PROBLEMS

People with severe mental health problems



General population



Diabetes

Hypertension

Coronary Heart disease

Gastro-intestinal disease

Cardio-vascular disease

Respiratory disease

Global status report on physical activity 2022



- Many people struggle to meet PA guidelines
- 1 in 4 adults globally do not meet the guidelines (1 in 2 in high income countries)
- Even fewer with LTC meet these guidelines: SMI 3 in 4.
- WHO 2022: Only 40% of countries have standards for the management of physical inactivity in primary care

Effective PA interventions:

- Behaviour change that supports people to incorporate PA into their daily routines.
- Most inactive: walking and pedometers/step counters recommended

- So urgently need a scalable low cost strategy with dual HCP approach to manage LTC and support sustained physical activity



Clinical Guidelines:
Short-term structured
exercise programmes

persistent musculoskeletal pain: a
systematic review and meta-analysis

The benefits of walking for
individuals with schizophrenia
spectrum disorders: A

Schizophrenia Research 202 (2018) 3–16



Contents lists available at ScienceDirect

Schizophrenia Research

journal homepage: www.elsevier.com/locate/schres

Is it possible for people with severe mental illness to sit less and move more? A systematic review of interventions to increase physical activity or reduce sedentary behaviour



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Healthcare professional led: physical activity behaviour change interventions

Could we manage the primary condition?

+

support people to be more active?

- Embed into practice:
 - Could we train HCP to deliver these interventions
 - Acceptable/feasible for clinicians to deliver in real life practice
 - Acceptable to people with LTC (may differ from past experiences of healthcare)



COPD: Journal of Chronic Obstructive Pulmonary Disease




ISSN: 1541-2555 (Print) 1541-2563 (Online) Journal homepage: <https://www.tandfonline.com/loi/icop20>

Clinician-Facilitated Physical Activity Intervention Versus Pulmonary Rehabilitation for Improving Physical Activity in COPD: A Feasibility Study

ORIGINAL ARTICLE

Pedometer-driven Walking for Chronic Low Back Pain A Feasibility Randomized Controlled Trial

Research Paper



Supervised walking in comparison with fitness training for chronic back pain in physiotherapy: results of the SWIFT single-blinded randomized controlled trial (ISRCTN17592092)

Deirdre A. Hurley^{a,b,*}, Mark A. Tully^c, Chris Lonsdale^d, Colin A. G. Boreham^{a,b}, Willem van Mechelen^e, Leslie A'odon-Tyran^f, Suzanne M. McDonough^g

N=5 STUDIES



Lang et al. *BMC Musculoskeletal Disorders* (2021) 22:206
<https://doi.org/10.1186/s12891-021-04060-8>

BMC Musculoskeletal Disorders

RESEARCH ARTICLE

Open Access

A randomized controlled trial investigating effects of an individualized pedometer driven walking program on chronic low back pain



Angelica E. Lang¹, Paul A. Hendrick², Lynne Clay³, Prosanta Mondal¹, Catherine M. Trask⁴, Brenna Bath¹,

McDonough et al. *Pilot and Feasibility Studies* (2021) 7:205
<https://doi.org/10.1186/s40814-021-00938-5>

Pilot and Feasibility Studies

STUDY PROTOCOL

Open Access

A study protocol for a randomised controlled feasibility trial of an intervention to increase activity and reduce sedentary behaviour in people with severe mental illness: Walking fOR Health (WORTH) Study

Suzanne M. McDonough^{1,2,3,†}, Sarah C. Howes^{1†}, Maurice Dillon⁴, Judith McAuley⁵, John Brady⁶,



Clinician Training:

- Behaviour change approaches and communication skills
- Manualised intervention
- 2-3 days training

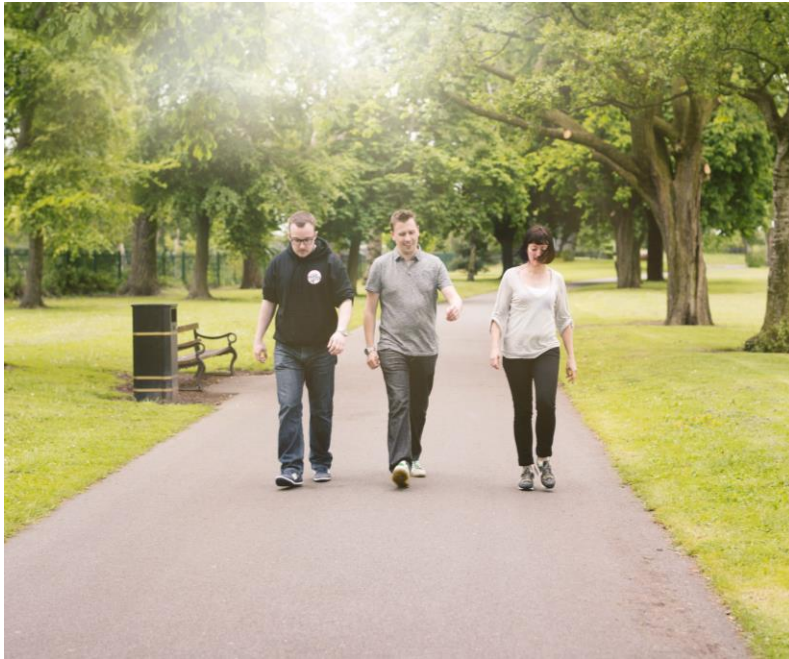
Group education session

Activity monitor and diary

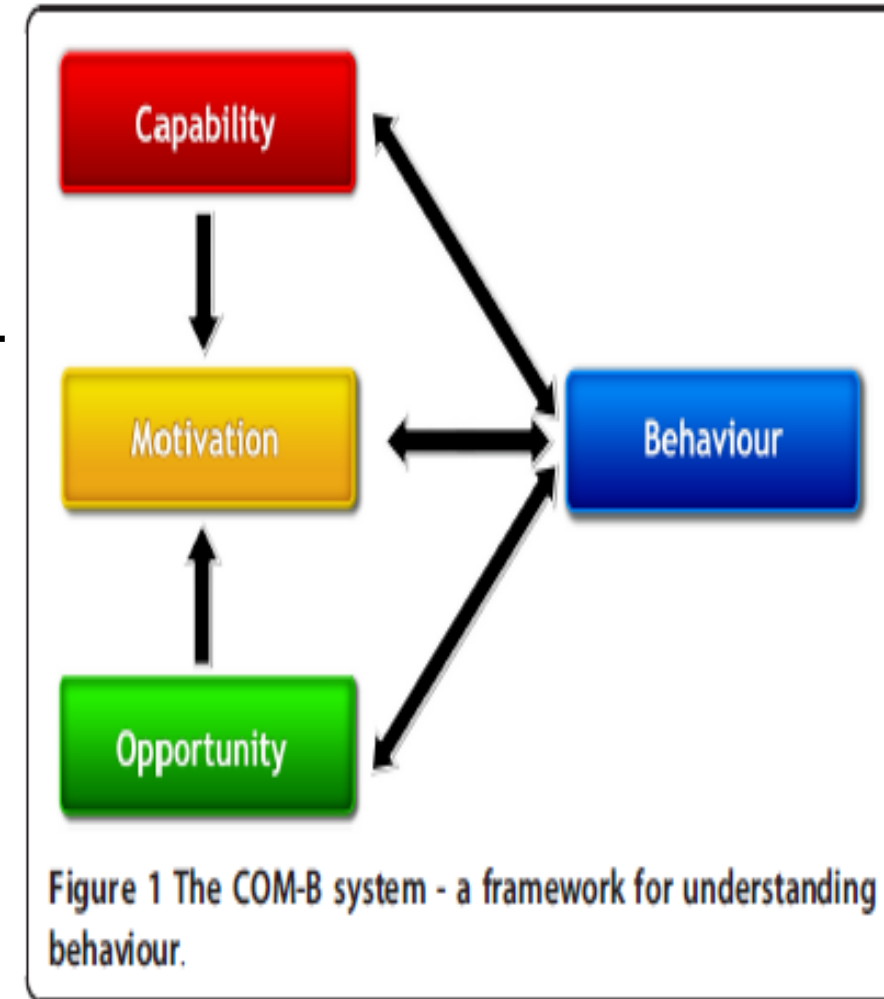
HCP Contact

Community opportunities

‘Move More’ and ‘Sit Less’



Intervention components



Plan

- Background
- Walking studies overview
- **Study findings**
- Take home message



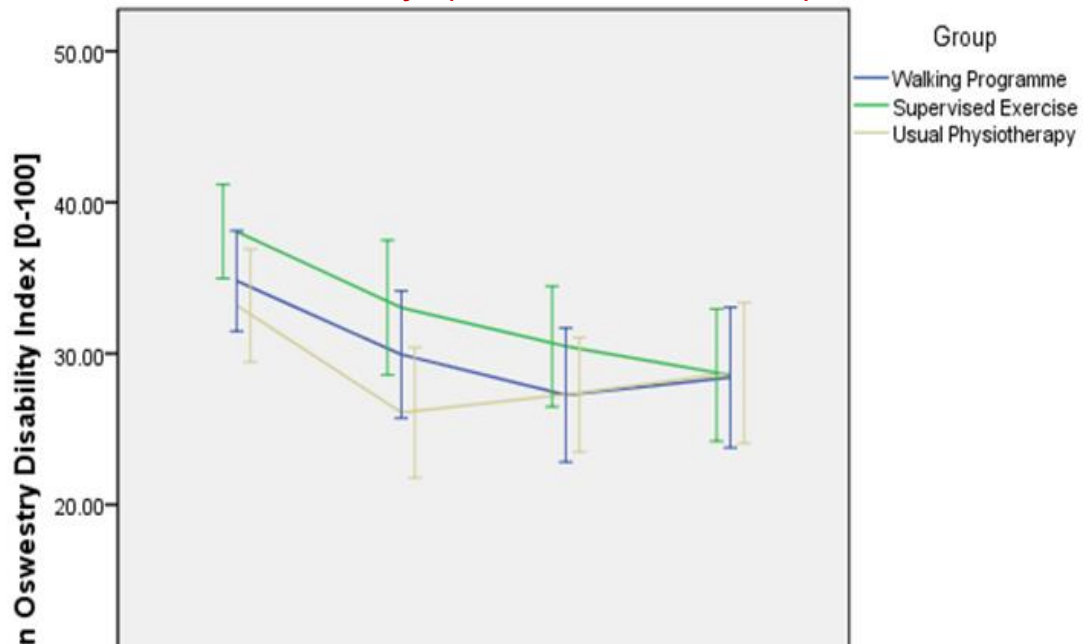
VS



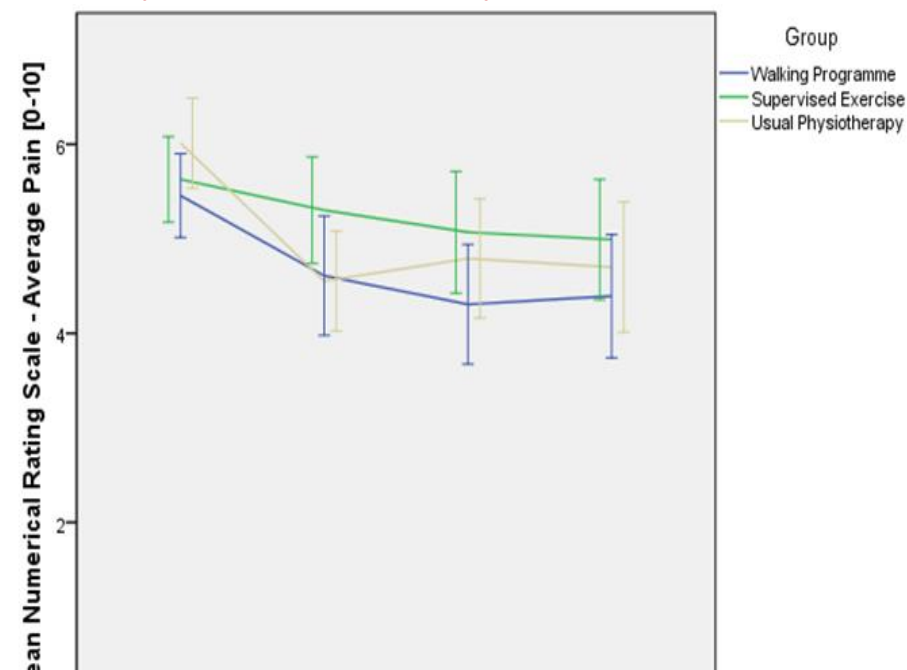
VS



Functional Disability (reduction=better)



Pain (reduction=better)



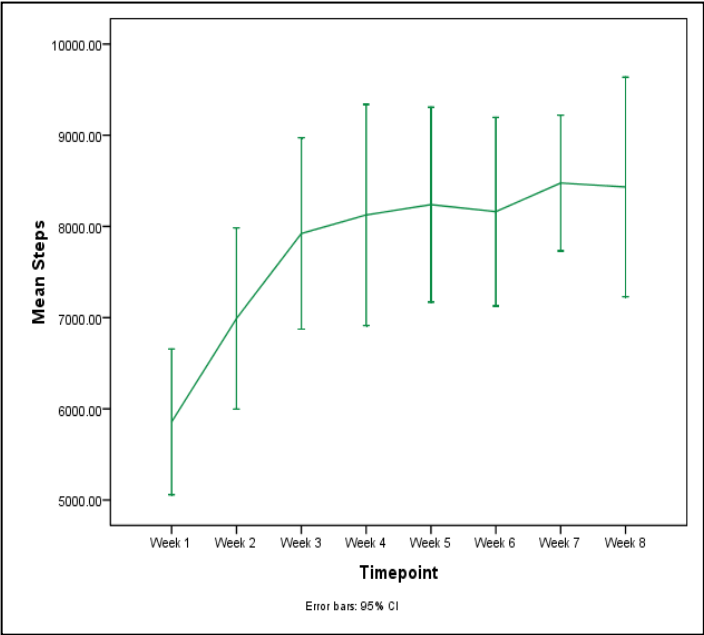
Walking improves the primary condition-low back pain

Also seen for respiratory disorders and severe mental illness

Intervention Response: Physical Activity Volume: Low Back Pain



STEPS

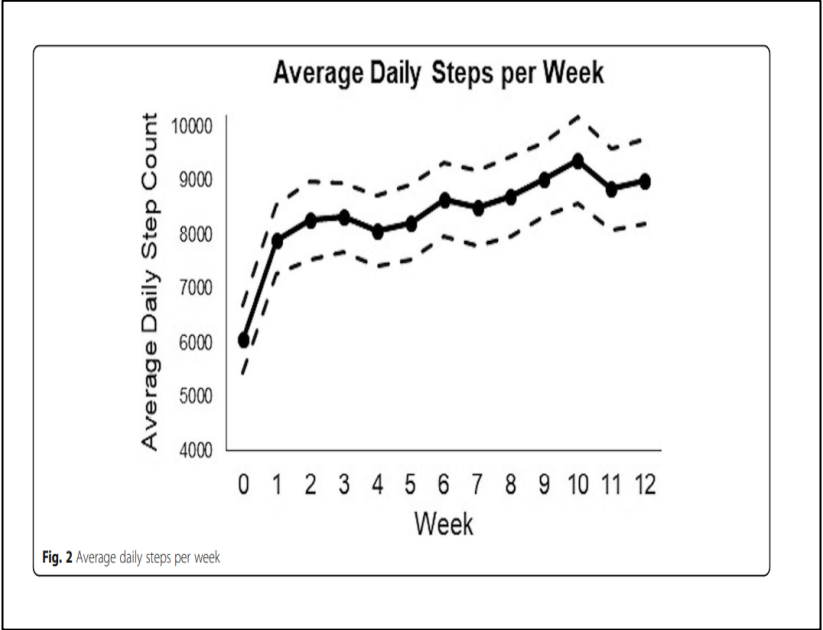


Baseline: 6000 Steps
Mean Increase=45% (2917 steps*)

3000 steps=30 mins walking



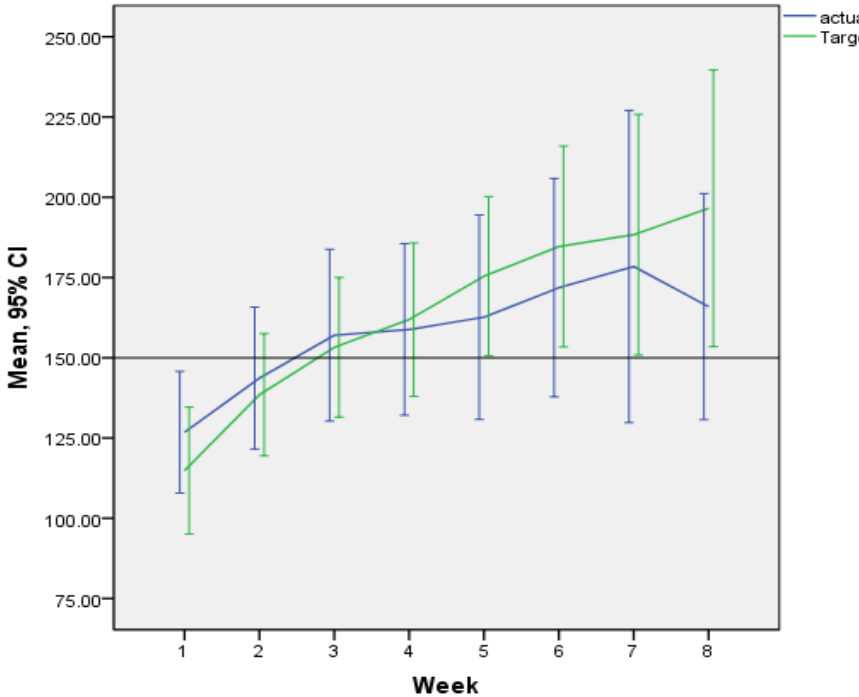
STEPS



Baseline: 6000 Steps
Mean Increase=31% (2894 steps*)

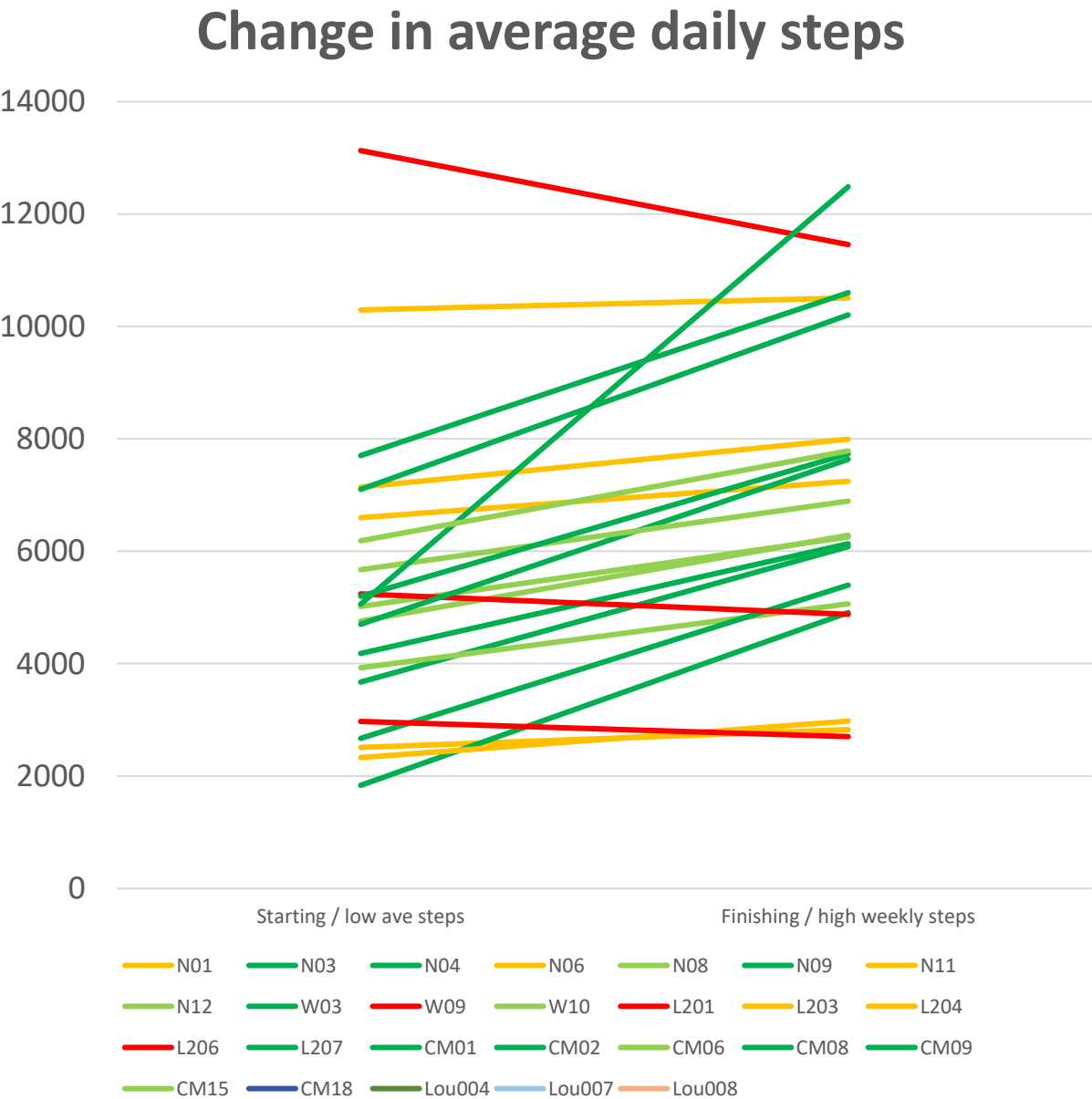


MINUTES



Baseline: 115 minutes
Mean Increase=31% (39 mins)

Intervention Response: Physical Activity Volume: Severe Mental Illness



Summary	
Participants (N)	Change in average daily steps during WOrtH programme
3	reduced steps
5	increased <1000 steps
5	increased 1000-2000 steps
9	increased >2000 steps

-60% had cognitive challenges

-Remote delivery worked well

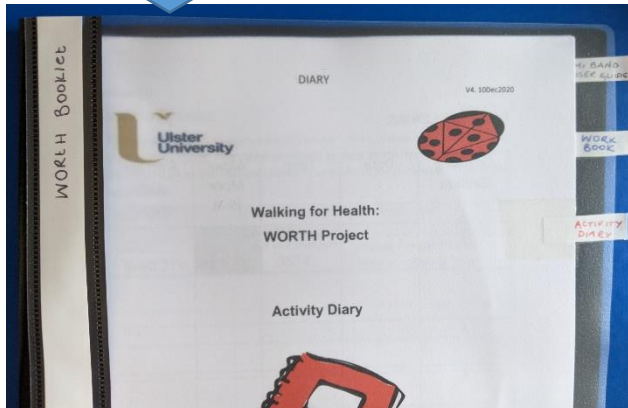
Acceptable to Clinicians and Feasible to Implement in Practice

And it was good for me to see ... to have a more objective kind of view on my behaviour.... and just even shine a light on my own behaviour.



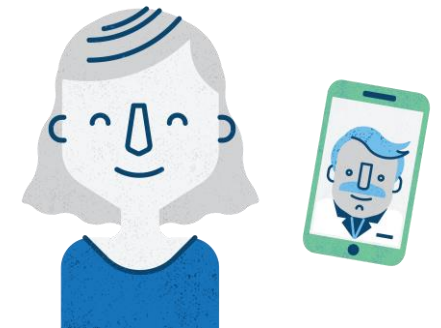
I never would have thought of steps for exercise. I'm really motivated. Having the thing on your arm

the steps every night.... Yeah, that's good because it kind of motivates you... I may do a few more tomorrow!



Actually in the beginning I was writing it down and then I was checking that the app was giving me the right answer! And when I realised, yes, it's OK, I stopped doing that.

definitely having the coach. That challenges me. I think I must be basically lazy. I need some challenge



That was brilliant. It really was. Because I knew he was coming. And I didn't want to let him down, and I didn't want to let myself down by not having achieved the goal that we'd set. So for me it was great.

Plan

- Background
- Walking studies overview
- Study findings
- **Take home message**

Take Home Message



Positive response from
participants and clinicians



Walking acceptable,
accessible and often
preferred type of activity



Device/diary central –
similar response to
general population



Health Care Professionals:
build confidence and
skill/accountability



Manages the primary
condition



Supports increased
physical activity across
range of baselines

Provides accessible dual approach for HCP to manage explosion of people with LTC within the next decade

Future Studies

Arthritis Ireland (AI)

Sustaining PA in people who exit from physiotherapy led exercise programmes run by AI



Mental Health Ireland

Walking for Health:
The WOrtH project-Definitive Trial



✓ Thanks!

Participants

Clinicians: Briege Carroll, Rebecca Cahill, Andrew Atkinson, Mairead McMahon, Mairead Corr, Caroline McDonnell, Catherine Ward, Heather Kerr, Darren French, Heather Currie, Oonagh Gahan, Sean Collins, Ann Donnelly, Joy Goodall-Leonard, Helen O'Neill, Claire Murphy, Neil McCullagh, Louise Kemp, Leann Donegan, Jay Seetharaman, Olivia Soosay, Joshua Healy, Nadine Bibby.

Co-Is: Dr. Sarah Howes, Dr. John Brady, Prof. Mary Clarke, Prof. Mike Clarke, Mr. Maurice Dillon, Ms. Duana McArdle, Dr. Judith McAuley, Dr. Catherine McDonough, Prof. Marie Murphy, Dr. Ailsa Niven, Dr. Tony O'Neill, Prof. Mark Tully, Dr. Julie Williams, Dr. Iseult Wilson. Dr Joanne Marley, Prof Deirdre Hurley, Dr Grainne O'Donoghue, Dr Chris Lonsdale, Prof Colin Boreham, Prof Willem van Mechelene, Prof Leslie Daly, Aodan Tynan, Prof Mark Tully, Prof David Baxter, Dr Sean O'Connor, Prof Ian Bradbury, Prof Catrine Tudor Locke, Prof Anthony Delitto, Dr Adele Boyd, Dr Angelica Lang, Dr Paul Hendrick, Dr Lynne Clay, Dr Prosanta Mondal, Dr Catherine Trask, Prof Brenna Bath, Dr Erica Penz, Dr Samuel Stewart, Prof Stephan Milosavljevic



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Government of Ireland



Delivering Group Exercise Programmes in Community Settings for Chronic Illness : The Practical Challenges

Dr. Noel McCaffrey
CEO, ExWell Medical

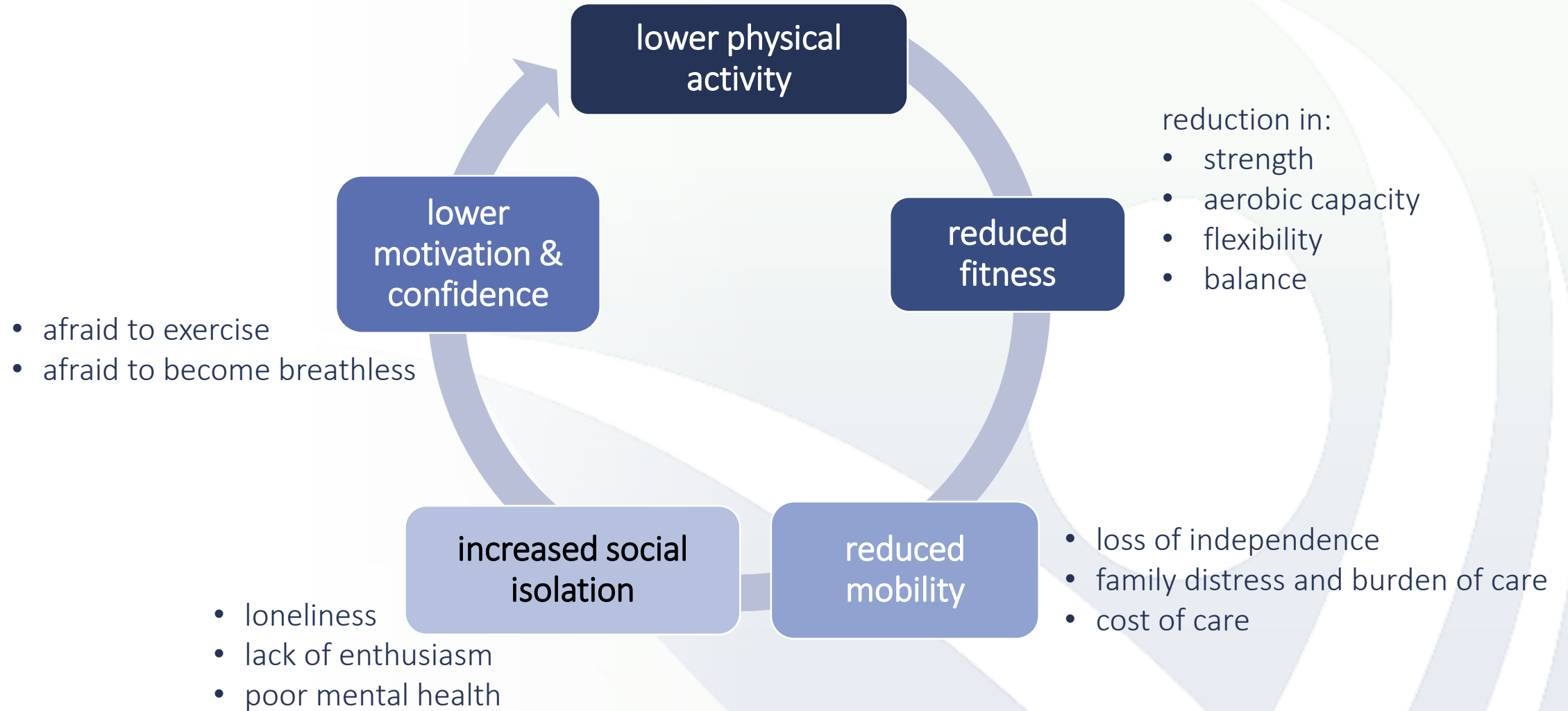


overview

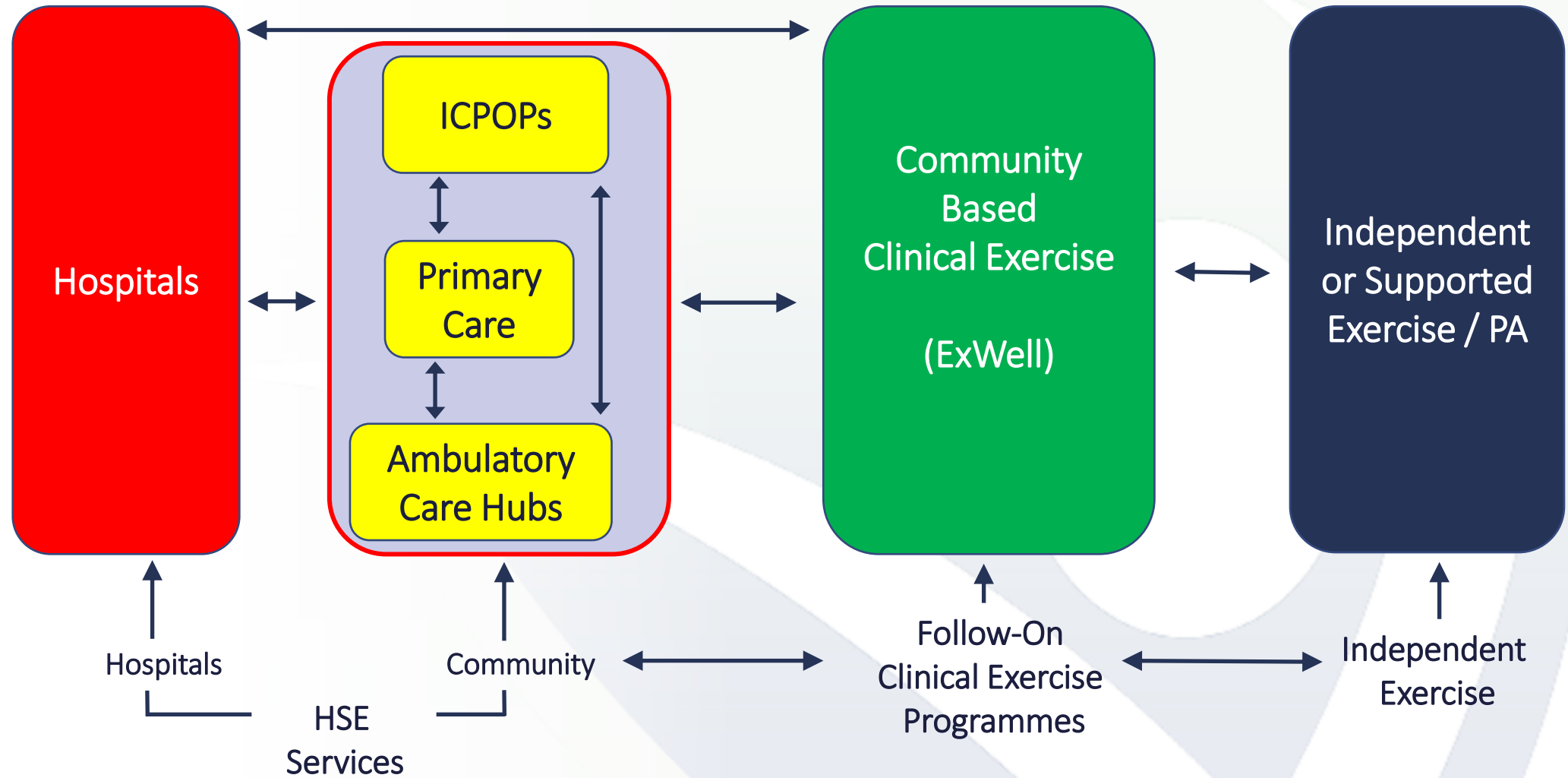


- background context
- practical issues
 - functional ability
 - progression
 - class format
 - age
 - disease specificity
 - frailty
 - communication difficulty
 - workers
 - pain
 - Covid
 - class format
 - engagement / dropout
 - delivery model

the downward spiral



delivery model



engagement framework

- HSE
- Health Insurers
- Sport Ireland
- Pharma
- Local Authorities
- Advocacy Groups
 - ICS
 - IHF
 - CanTeen
- Home Care

**Funders,
Policymakers,
Supporters**

ExWell

Referrers

- GPs
- Hospital Teams
- ICPOPs
- CDHs
- Social Prescribers
- AHPs
- Pharmacists
- Advocacy Groups

**Delivery
Partners**

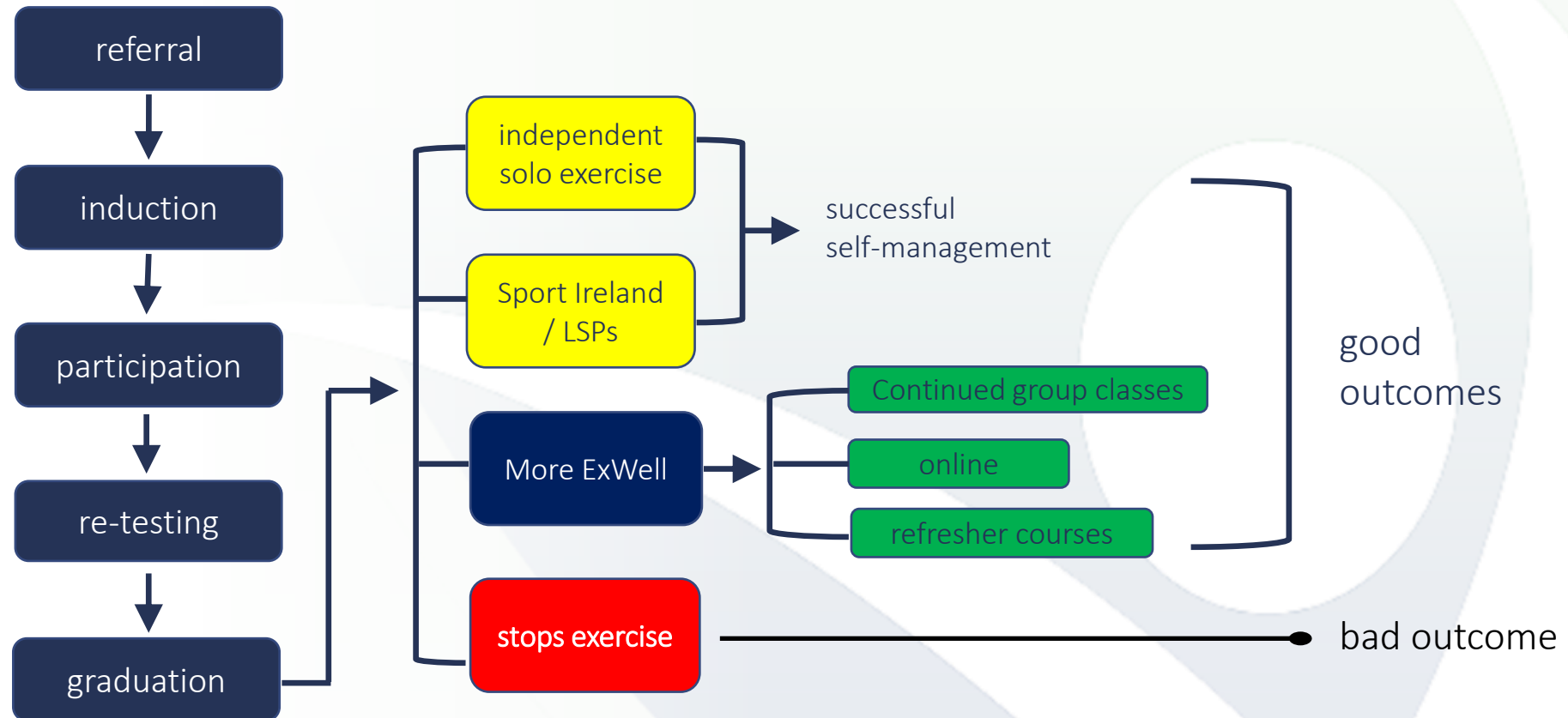
- GAA
- Community Centres
- Sport Centres
- 3rd Level Institutions
- Advocacy Groups
- Local Authorities
- Private Gyms

core pillars

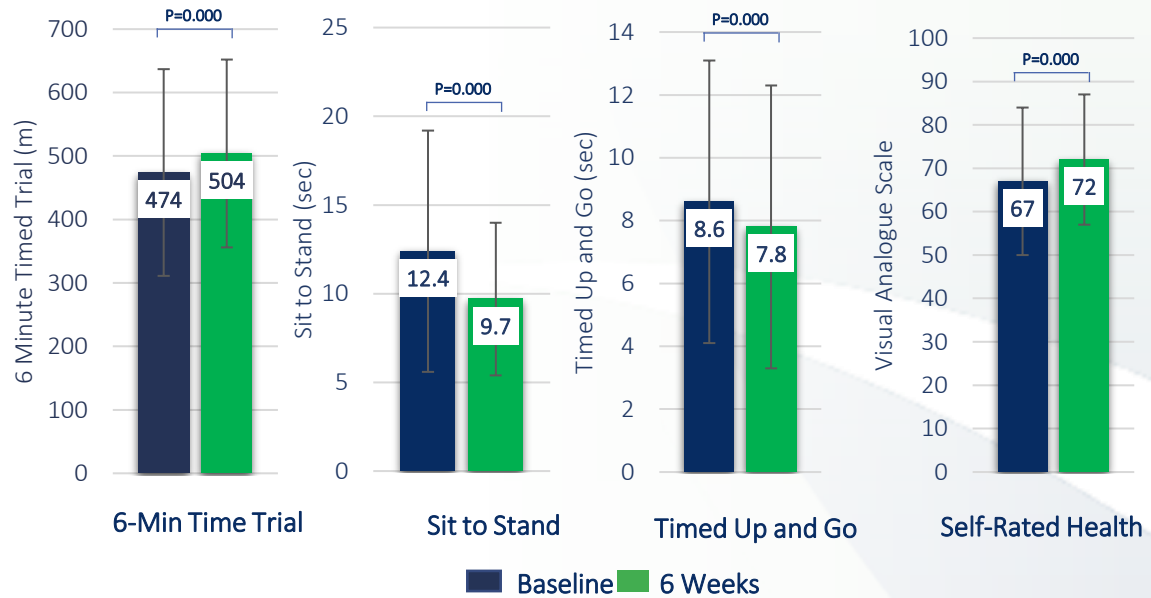
- exercise
- social interaction
- impact measurement
- adherence surveillance / monitoring
- research



the pathway



impact



current status

- rapid growth phase
- 22 centres
- 1600 weekly visits
- staff = 21
- 19 funded or subsidized projects
- very strong Advisory Group



different functional abilities

- level options for aerobic exercises
- stations by ability
- include chair station
- classes by ability
- heavy / light weights



progression

- happens naturally
- education about what progression means
- criteria
 - tolerance of class with appropriate 'distress'
 - no adverse events
 - adequate time at one level
 - objective tests improving
 - willingness to move
 - tolerance of new level



age

- younger participants may panic
- address it at induction
- offer 'young' class
- young station
- individual attention



disease specific programmes

- ? not necessary
- exceptions
 - PAD
 - Cancer
- mixed classes
 - beneficial
 - inspiration from seeing others
 - facilitate scaling



frailty / high need

- individual assistance (relative or ExWell intern)
- careful progression, starting with strength only



communication difficulty

- deafness /cataracts / cognitive decline
- awareness
- staff training
 - stand in front
 - stand close
 - repeat introductions
 - don't rush
 - vigilance for poor understanding
 - avoid technical language
 - age-friendly brochures (font size etc.)

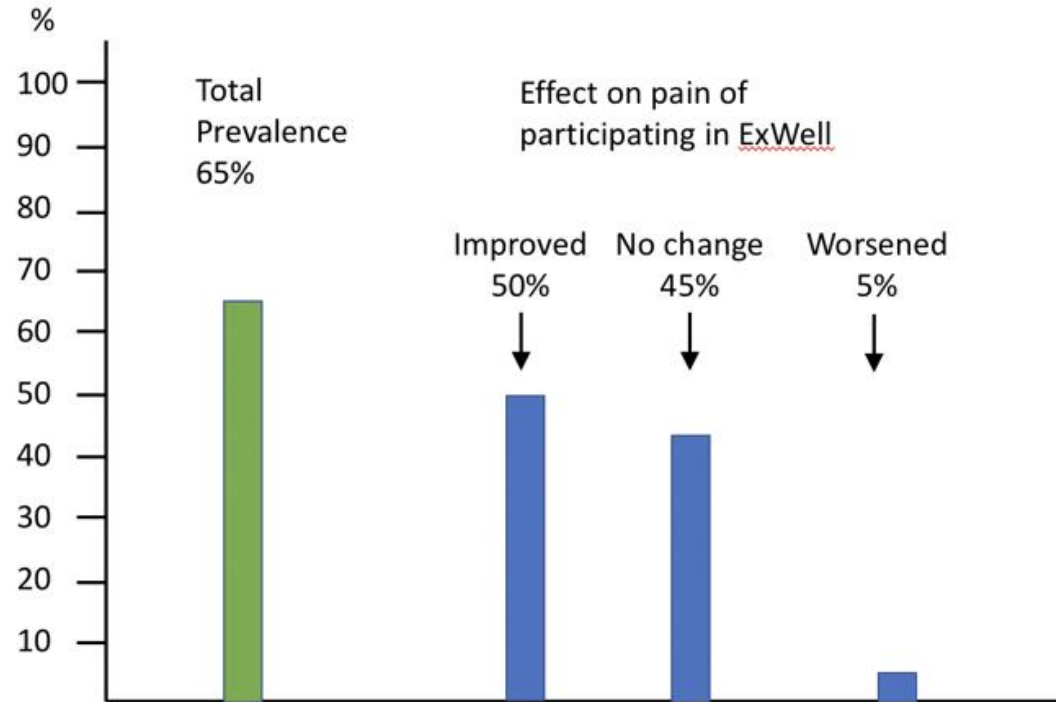


participants who are still working

- programmes work because of down time facility use
- evening access difficult
- solution may be early morning classes



Pain



- reassurance
- avoid certain exercises
- panadol

Covid

- at any time , follow DoH guidelines
- keep the participants informed
- clinical exercise sessions are medical appointments
- pods / spacing / masks
- hygiene re equipment
- open the doors
- outdoor classes

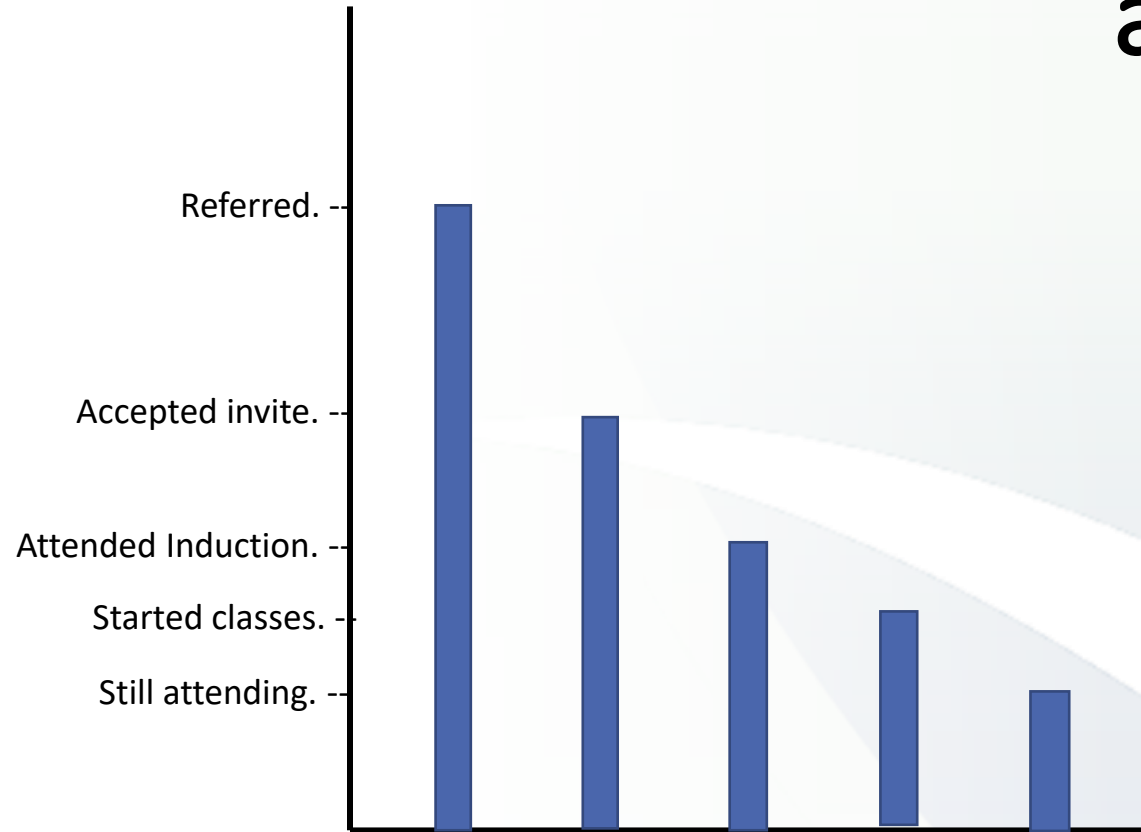


class format

- all options work
 - stations
 - circuits
 - one large group
- some like variety, some want no change

offer the options

engagement and adherence



delivery model

- local access
- delivery partners
- cost and funding





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Collaboration is Key

The process, progress and future directions of the PACC Initiative



Physical Activity for People
with **Chronic Conditions**



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Dr Clare Lodge
#IPARC



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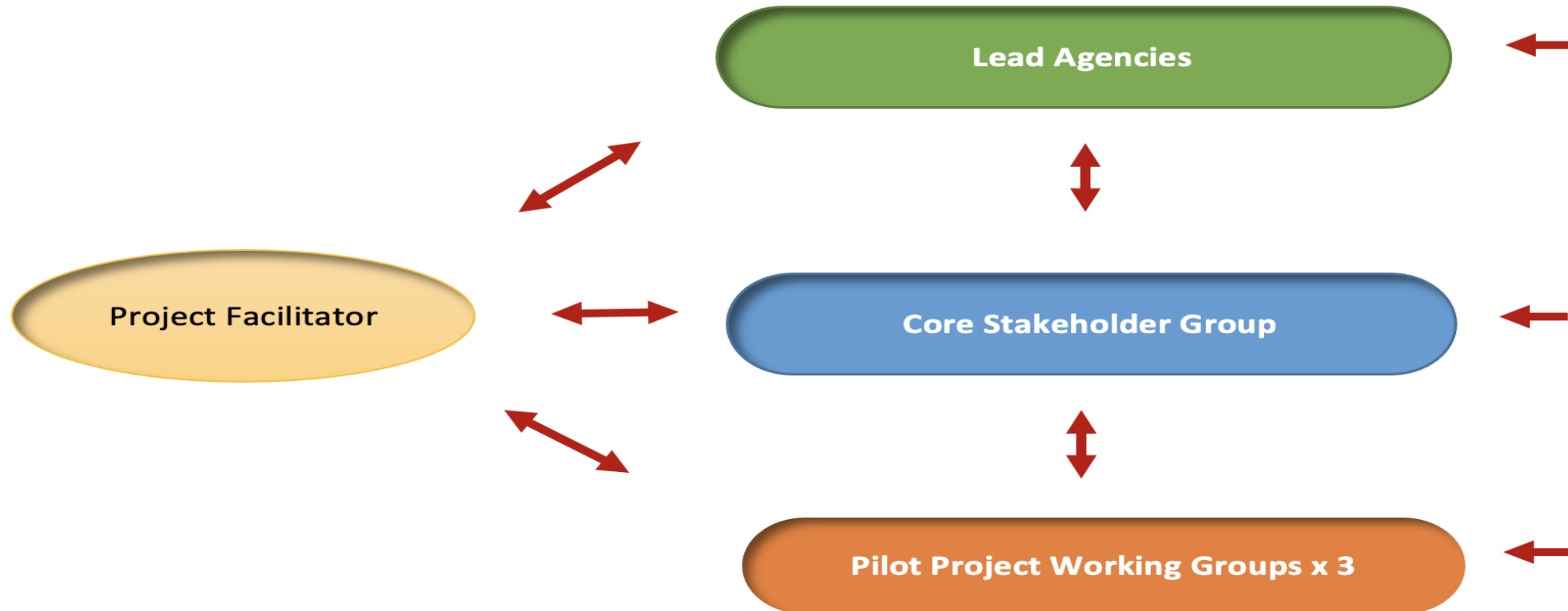


Physical Activity for People with **Chronic Conditions**





To increase physical activity opportunities for individuals living with chronic conditions



Process

PHASE 1 April – Dec. 2021

conceptualisation, consultation and development

Consultative process

Identification of Themes + Priorities

Identification of 3 pilots

Availability of
structured Exercise
services In the
Community

Availability of skilled
informed instructors

Information Flow

Efficient referral systems

Pilot 1

Adaptation and extension of the
ExWell Service Delivery Model in
Carlow

Pilot 2

Preparation for a research,
consultation and framework-
development process that will
lead to the design of quality
assured, multi-level, accredited
training/Continuous Professional
Development (CPD) packages for
exercise professionals working
with chronic conditions

Pilot 3

A formal engagement process,
involving Waterford Sports
Partnership, the Waterford Social
Prescriber Service and the HSE
Waterford Chronic Disease Hub,
designed to increase
information-flow and service-
linkage

Physical Activity for People
with **Chronic Conditions**

PHASE 1 April – Dec. 2021

Consultative process

Identification of Themes + Priorities

Identification of 3 pilots

PHASE 2 : Jan- Dec 2022 implementation stage

Establishment of 3 pilot WGs

Pilot 1 Commenced March 2022

Pilot 2 Tender for curriculum design has been completed

Pilot 3 Designing and testing resources for signposting pathways has commenced

Key Outputs to date.....



Key Learnings – Emerging innovations will aim to be replicable and scalable.

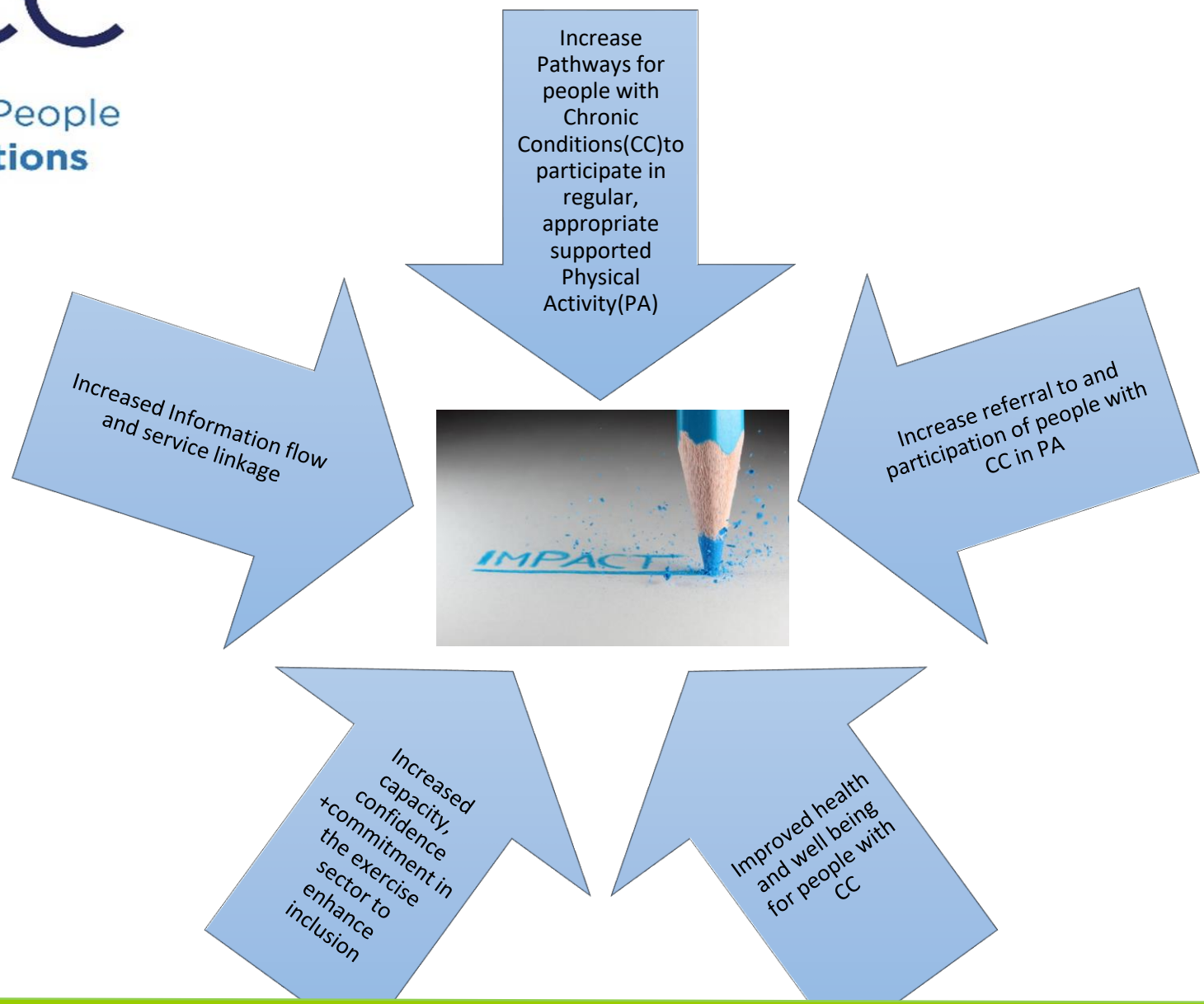


Acknowledging key inhibitors to the process



Impact Evaluation of the Pilots
will be the focus in 2023 and
will shape the future direction

Plans for 2023 –
communication, sharing
learning from PACC to inform
and shape the wider landscape
of strategic developments in
Sport Ireland and HSE





“removing systemic barriers to the participation of people with chronic conditions in physical activity through the creation of a replicable, multisectoral, evidence-informed, collaborative initiative that generates learning and builds on evidenced practice.”



Physical Activity for People with **Chronic Conditions**



thank you

