Care Management and Digital Considerations for Physiotherapists Engaged in the Care of Adults with Chronic Disease

Julia Chevan, PT, DPT, PhD, MPH

6-7 September 2024

Friday 6.09

12:30

“Digitization of pre/post-operative rehabilitation of osteoarthritis and other chronic health conditions”

Content Outline and Learning Outcomes

- Content Outline
  - Chronic disease in the Baltics
  - Digital Health and Physiotherapy
- Objectives
  - Learners will identify the digital tools and resources they will use in their practice.
  - Learners will consider the impact of digital health on population level changes for chronic disease.

CHRONIC DISEASE IN THE BALTICS

Chronic or Noncommunicable Diseases (NCD)

- Key features/Definition
  - Long duration: Last more than one year
  - Require ongoing medical attention or limit ADL or both
  - Leading cause of illness, disability and death
  - Multifactorial antecedents (risk factors)
    - Genetic
    - Physiologic
      - Metabolic
    - Environmental
    - Behavioral

Chronic Disease/NCD Globally

World Health Organization

- NCDs are responsible for 74% of all deaths globally
- Deaths and diseases on an annual basis
  - Cardiovascular diseases account for 17.9 million deaths
  - Cancers account for 9.3 million deaths
  - Chronic respiratory diseases account for 4.1 million deaths
  - Diabetes account for 2.0 million deaths
- Tobacco use, physical inactivity, excessive use of alcohol, unhealthy diet and air pollution all increase the risk of dying from an NCD
- Detection, screening and treatment of NCDs, as well as palliative care, are key components of the global response to NCDs.

https://www.who.int/news-room/fact-sheets/detail/noncommunicable-diseases

Which of these chronic conditions are most common among adult patients in your clinical setting?

Osteoarthritis 0%

Diabetes 0%

Hypertension 0%

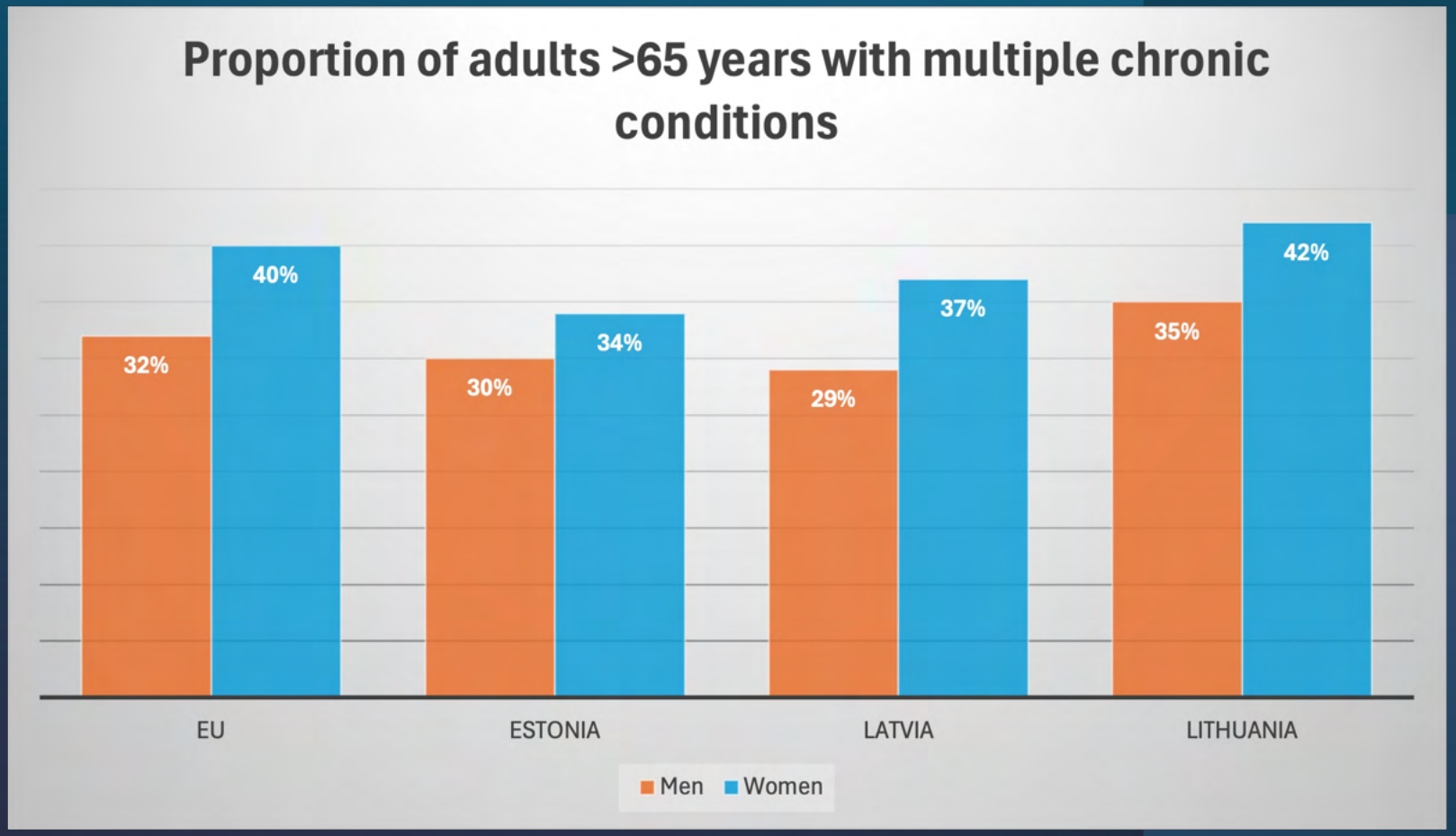
Coronary heart disease 0%

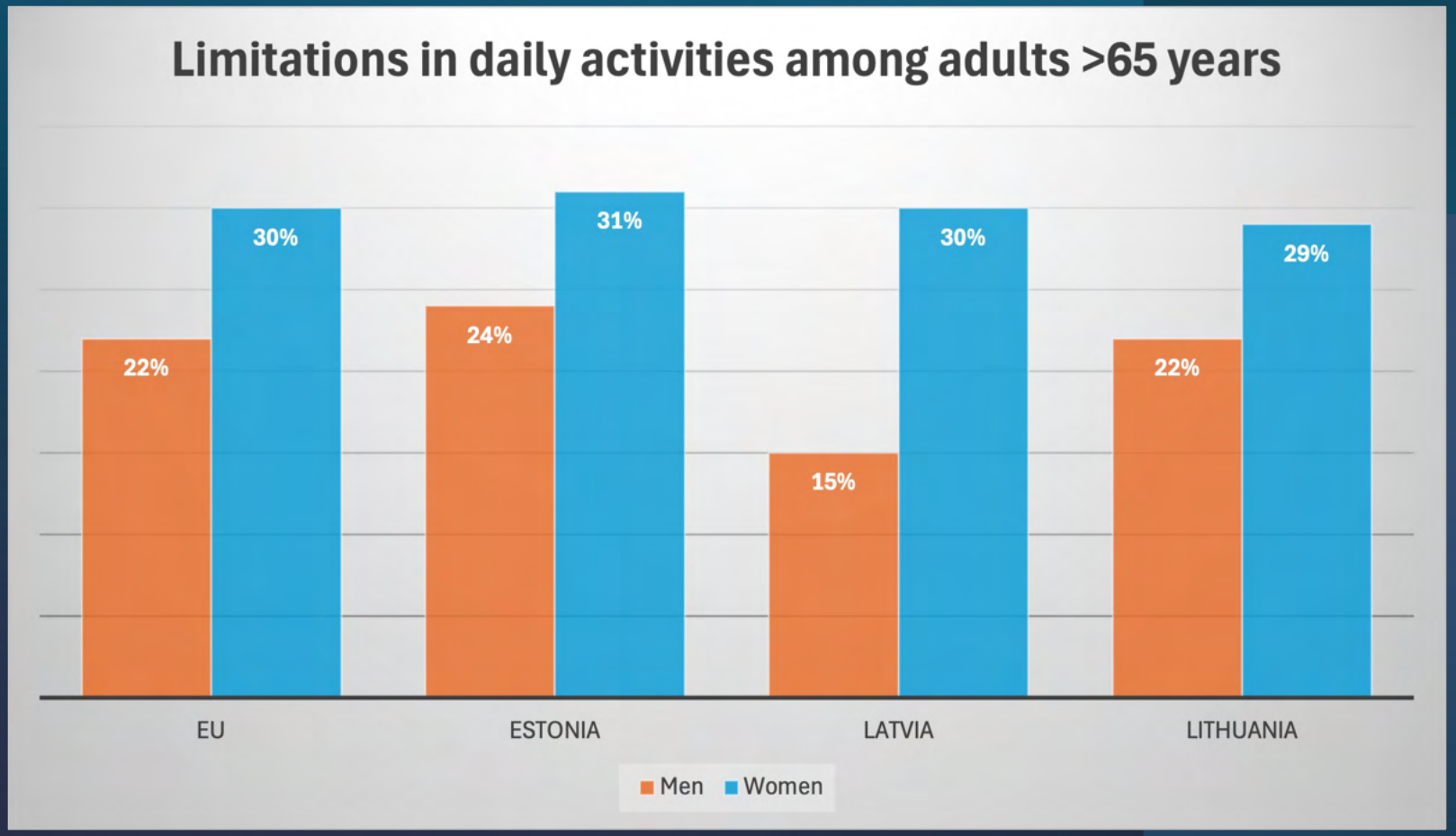
Chronic obstructive pulmonary disease 0%

Asthma 0%

Cancer 0%

Depression 0%


Proportion of adults >65 years with multiple chronic conditions
32%
40%
30%
34%
29%
37%
35%
42%
EU
ESTONIA
LATVIA
LITHUANIA
Men
Women


Limitations in daily activities among adults >65 years
22%
30%
24%
31%
15%
30%
22%
29%
EU
ESTONIA
LATVIA
LITHUANIA
Men
Women

Assessing Chronic Disease Management in European Health Systems: Country reports

- Lai T, Knai C. Estonia. In: Nolte E, Knai C, editors. Assessing Chronic Disease Management in European Health Systems: Country reports [Internet]. Copenhagen (Denmark): European Observatory on Health Systems and Policies; 2015. (Observatory Studies Series, No. 39.) 5. Available from: https://www.ncbi.nlm.nih.gov/books/NBK458744/

Key quotes

Estonia

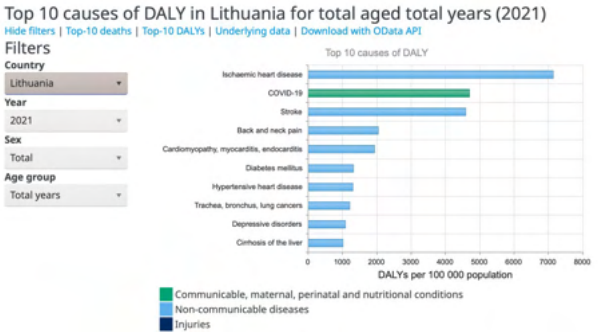
- "…a key component of the Estonian health care system is the central role of GPs in overall patient management and care coordination. This is accompanied by well-developed information systems with the GP as principal holder of patient data on all medical services, including hospital care. **Overall, there are three main forms of chronic disease management in Estonia: quality management in primary health care; chronic disease management at the interface between primary and secondary care; and other activities within primary care."**

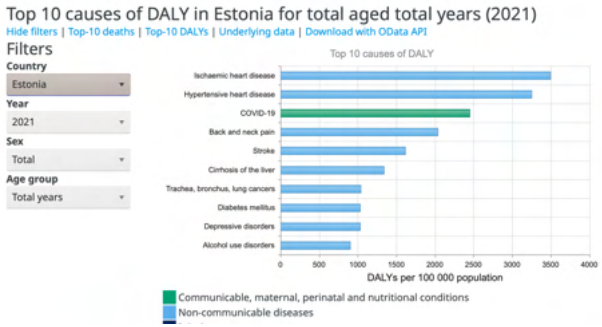
Latvia

- "There is currently **no documented explicit vision for chronic disease management in Latvia and relevant programmes have yet to be developed**. Chronic conditions are managed at the primary care level; family doctors provide general health care for children, adults and elderly people, including rehabilitation, preventive services and health promotion."

Lithuania

- "…there is **growing interest in a more systematic approach to chronic disease management, emphasizing coordination and integration in particular.** Experience so far can be broadly distinguished into approaches to improve intersectoral collaboration and the systematic use of clinical guidelines. Recently, policy initiatives to establish health care clusters addressed an issue of better coordination of health care delivery."



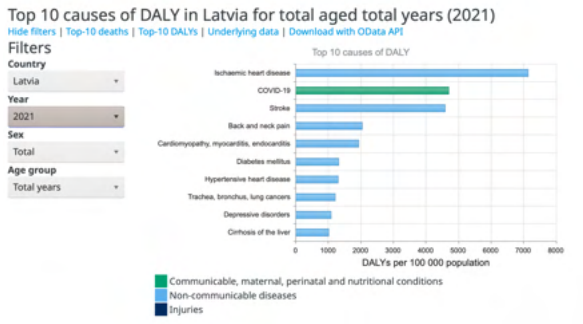


CARDIOVASCULAR DISEASE

PAIN

- Neck and back pain
- Osteoarthritis

DIABETES

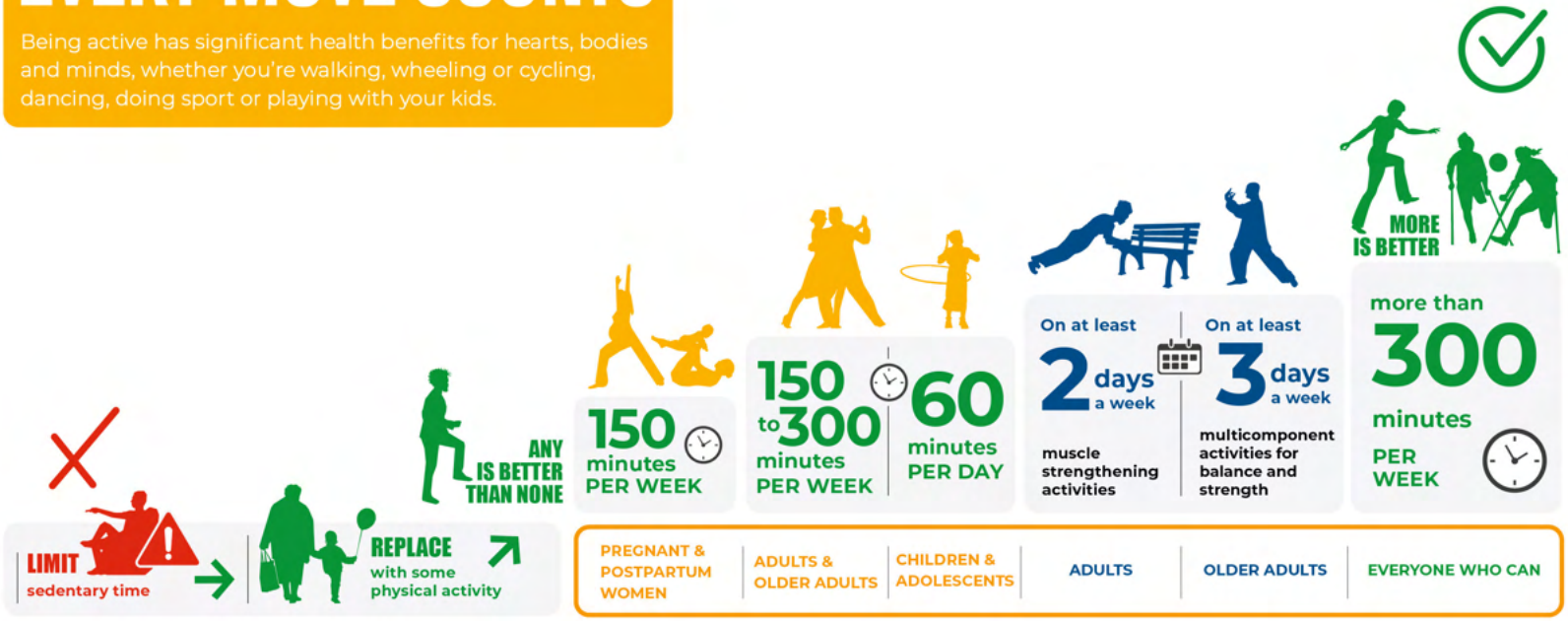


At the patient level

- Behavioral risk factors **physios** can influence
  - Tobacco use
  - Physical inactivity
  - Unhealthy diet
  - Excessive use of alcohol
- Metabolic risk factors **physios** can influence
  - Elevated BP
  - Overweight/obesity
  - Hyperglycemia
  - Hyperlipidemia

EVERY MOVE COUNTS

Being active has significant health benefits for hearts, bodies and minds, whether you're walking, wheeling or cycling, dancing, doing sport or playing with your kids.



At the macro level

- Additional risk factors physios can influence at a policy level
  - Environmental issues
    - Air quality
  - Social determinants of health/Health-related social needs
    - Income and social protection
    - Education
    - Unemployment and job insecurity
    - Working life conditions
    - Food insecurity
    - Housing, basic amenities and the environment
    - Early childhood development
    - Social inclusion and non-discrimination
    - Structural conflict
    - Access to affordable health services of decent quality

Physiotherapy in the 21st century – what is our role?

- Rehabilitation
  - Rehabilitation refers to health care services that help a person keep, restore or improve skills and functioning for daily living and skills related to communication that have been lost or impaired because a person was sick, injured or disabled.
- Habilitation
  - Habilitation refers to health care services that help a person acquire, keep or improve, partially or fully, and at different points in life, skills related to communication and activities of daily living.
- Health
  - a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity (illness)
- Wellness
  - the optimal state of health of individuals and groups that encompasses “a positive approach to living.”

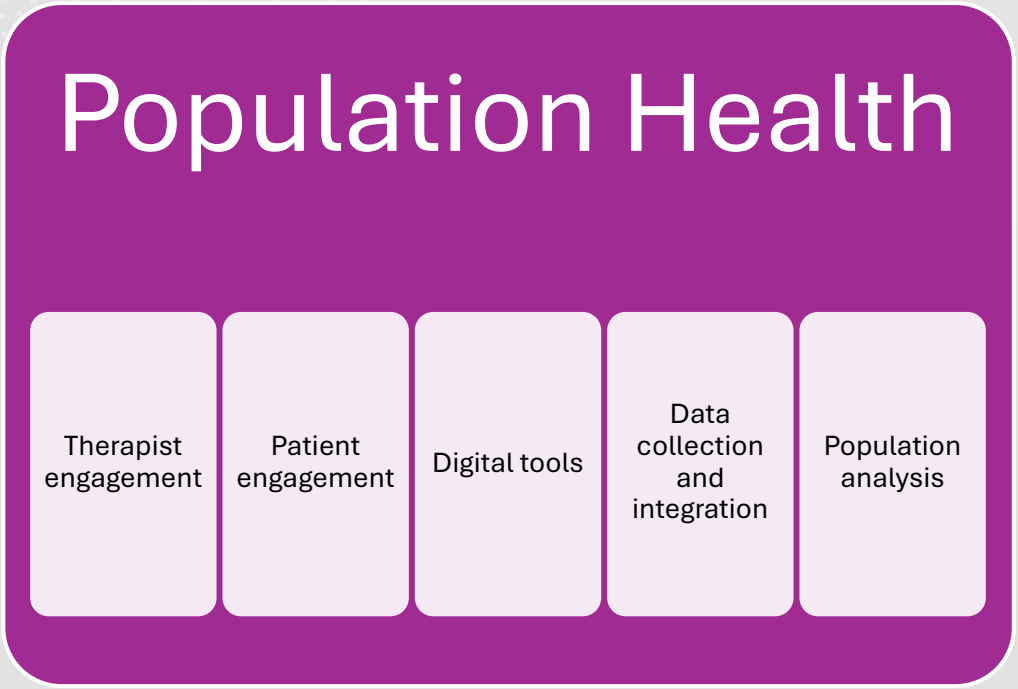
What are the 21st century physiotherapy interventions and what are the skills you will need to use them?

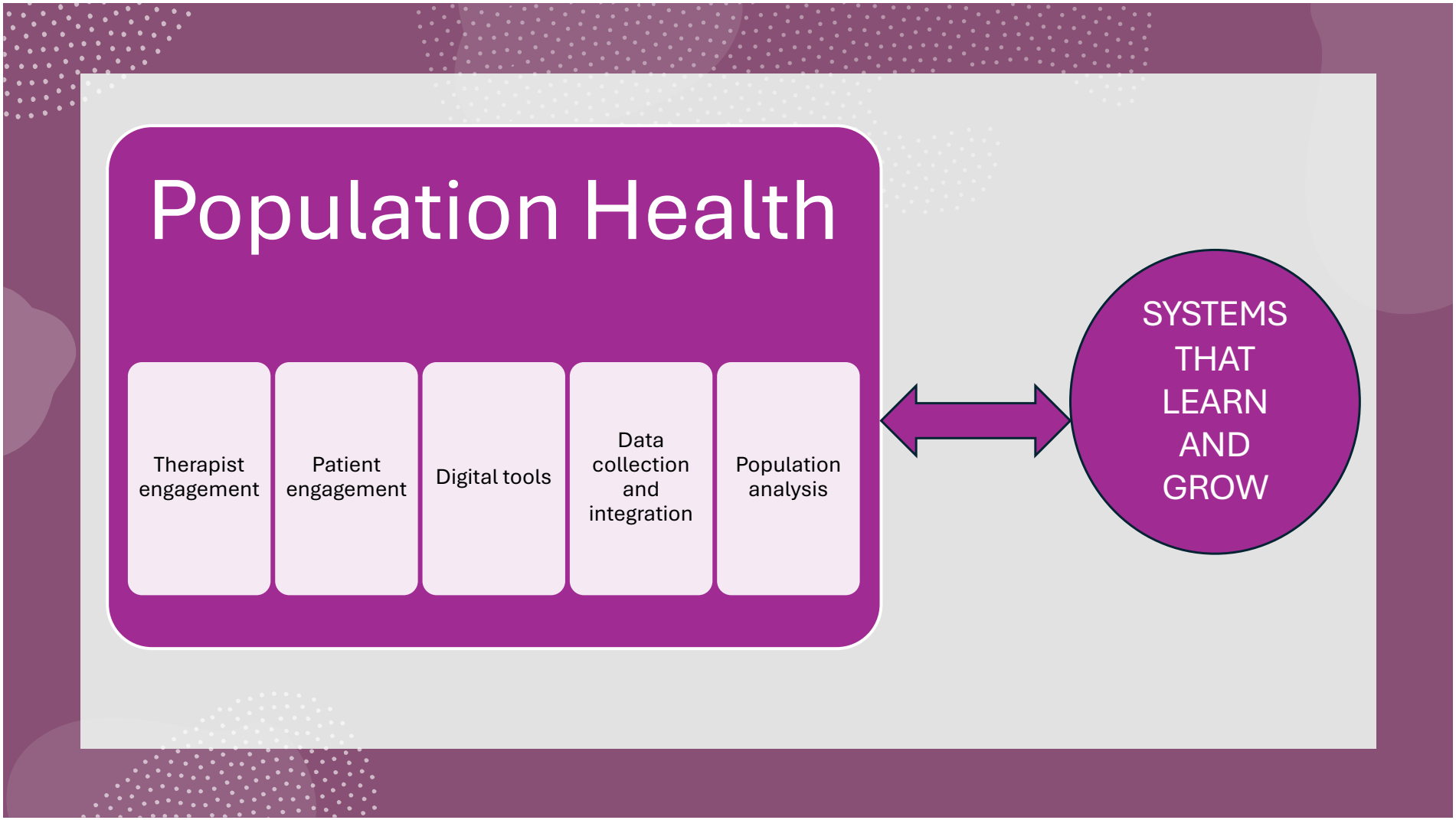
Nobody has responded yet.

Hang tight! Responses are coming in.

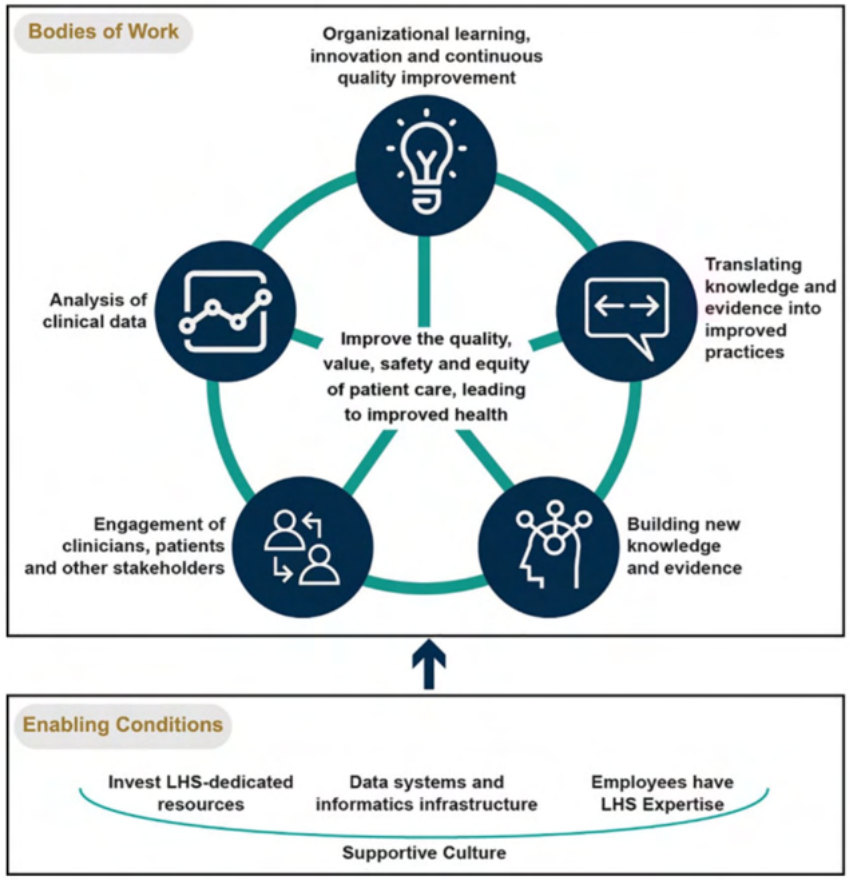
HOW DOES DIGITAL HEALTH FIT WITH THESE CONCEPTS AND WITH PHYSIOTHERAPY?

Can we re-engineer physiotherapy?




Population Health
Therapist engagement
Patient engagement
Digital tools
Data collection and integration
Population analysis
SYSTEMS THAT LEARN AND GROW

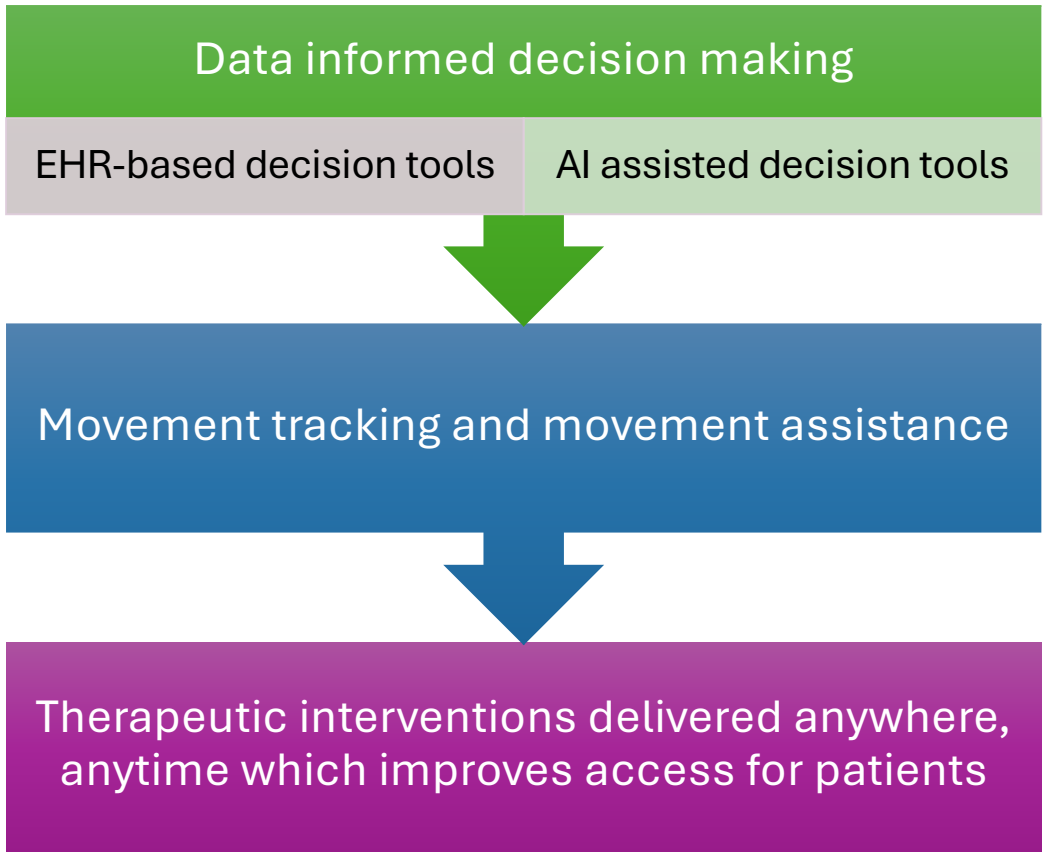
Learning Health Systems Consolidated Framework



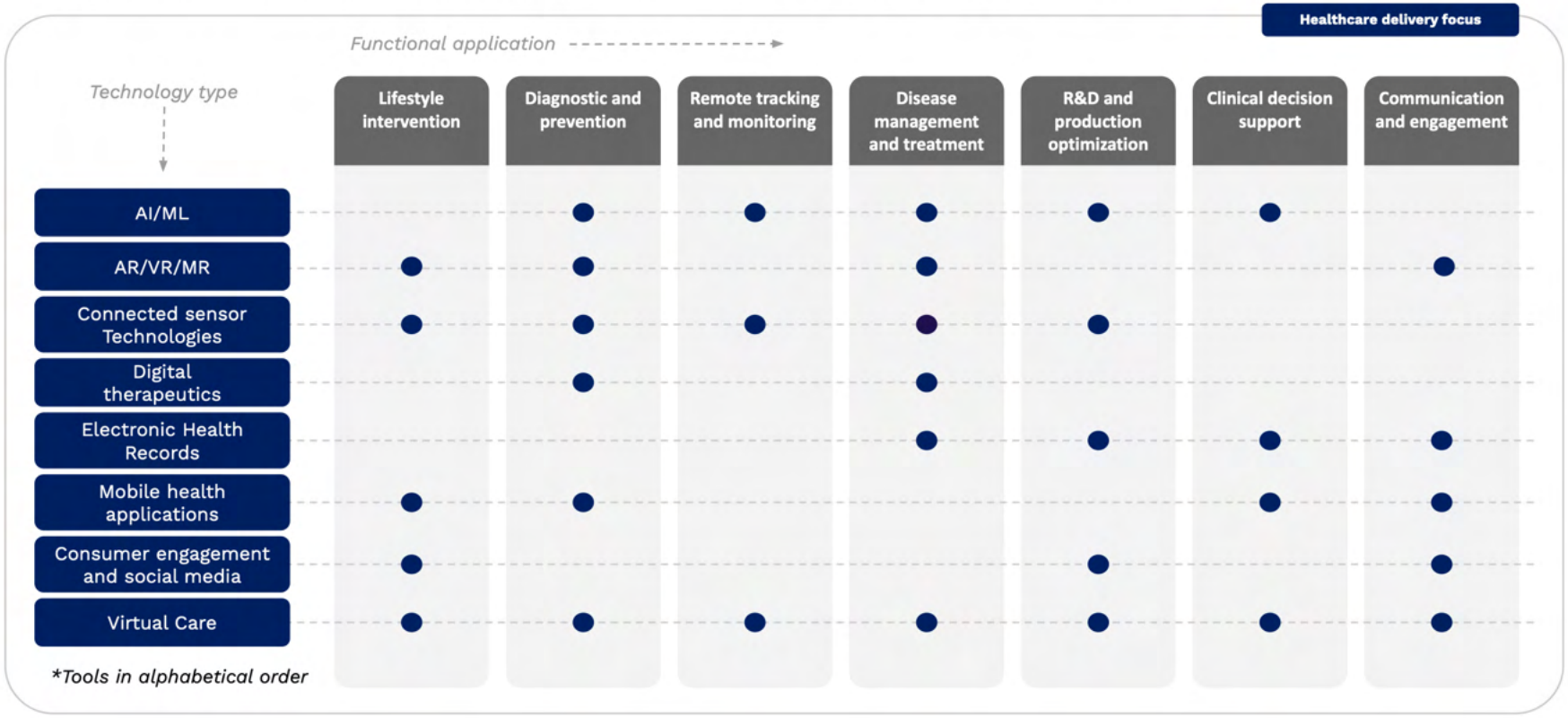
Digital Health Care

- Electronic communications tools and processes to deliver health care services or facilitate better health.
  - Electronic Health Records
  - Mobile Health Applications
  - Virtual Care (telehealth, telemedicine)
  - Artificial Intelligence and Machine Learning
  - Augmented Reality/Mixed Reality/Virtual Reality
  - Connected Sensor Technology
  - Digital Therapeutics

Why digitization in rehabilitation?



Digital health landscape map for healthcare delivery



Source: DiMe-VHA The Playbook: Healthcare team analysis

The Digitally Enabled Physical Therapist

Digital health solutions, which are
physical therapists now
deliver health

Advantages of digital physical therapy*

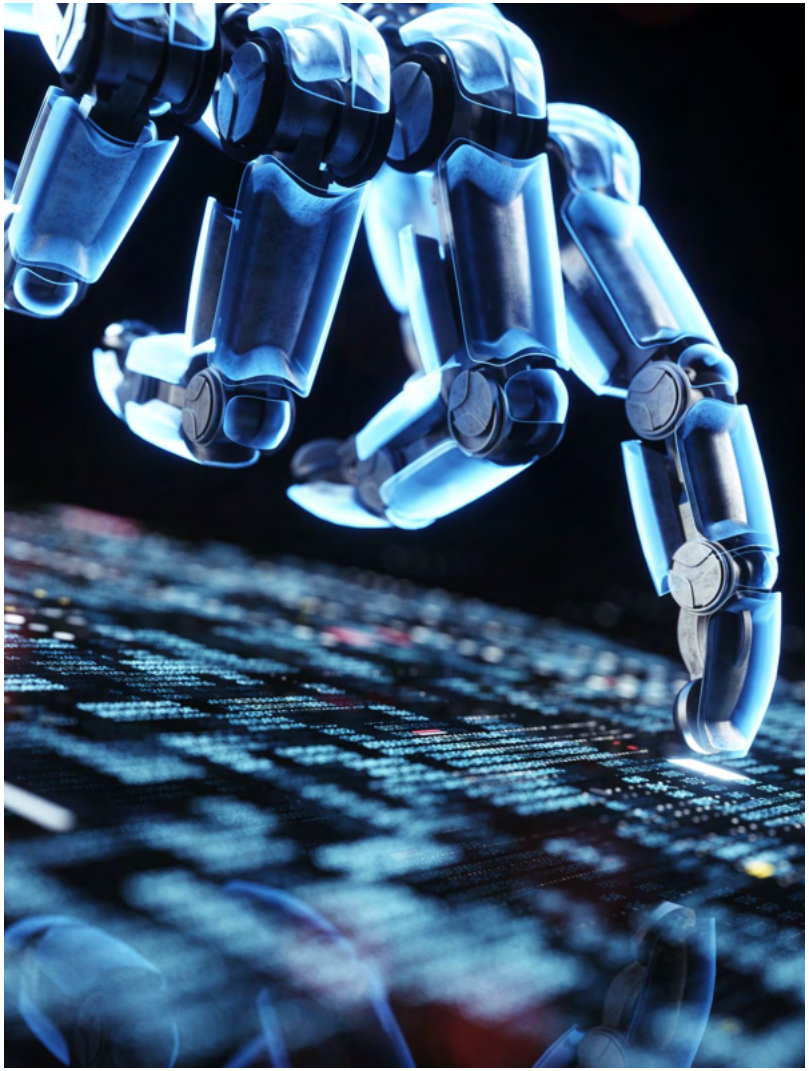
For patients:
- More access
- Higher engagement
- Better adherence to the care plan

For physical therapists:
- Scheduling and workspace flexibility
- Advance quality of care
- New growth opportunities
- Insight into patient health data

Challenges of digital physical therapy*

- Still a new concept with evidence being added
- Potentially unequal connectivity or access to technology
- Lack of digital literacy and skills
- Payment/insurance uncertainties
- Privacy, confidentiality, ethical, legal, and safety concerns

Virtual care
Telerehabilitation



What are we talking about in rehabilitation (in 2023)?

- Robotics and exoskeletons
- Virtual reality (VR) and augmented reality (AR)
- Wearables and ambient sensors
- Telehealth
- Apps for healthcare
- Artificial Intelligence (AI)
    - Regenerative Rehabilitation

Robotics and exoskeletons

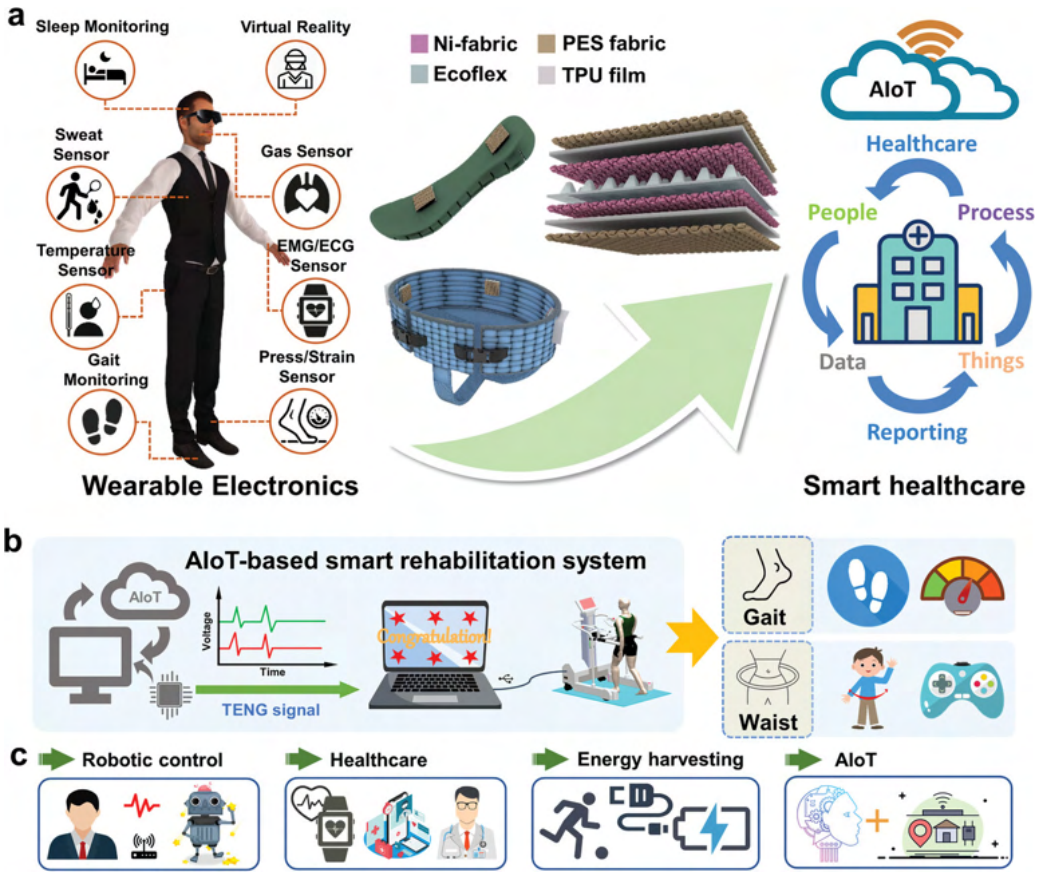
- Provide patients with support and assistance during movement
- Helpful for patients with neurological conditions, such as stroke or spinal cord injury.

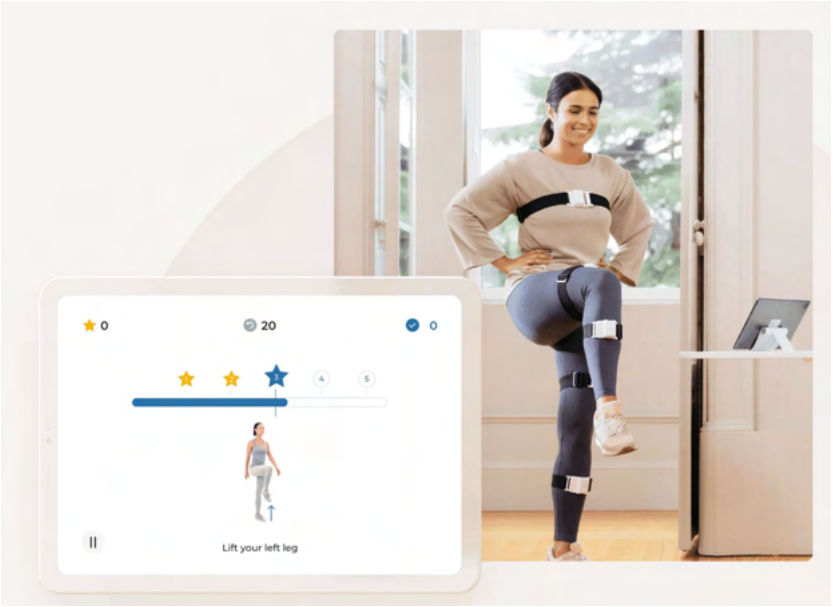
Penumbra

VR/AR

REAL System™

Wearable sensors





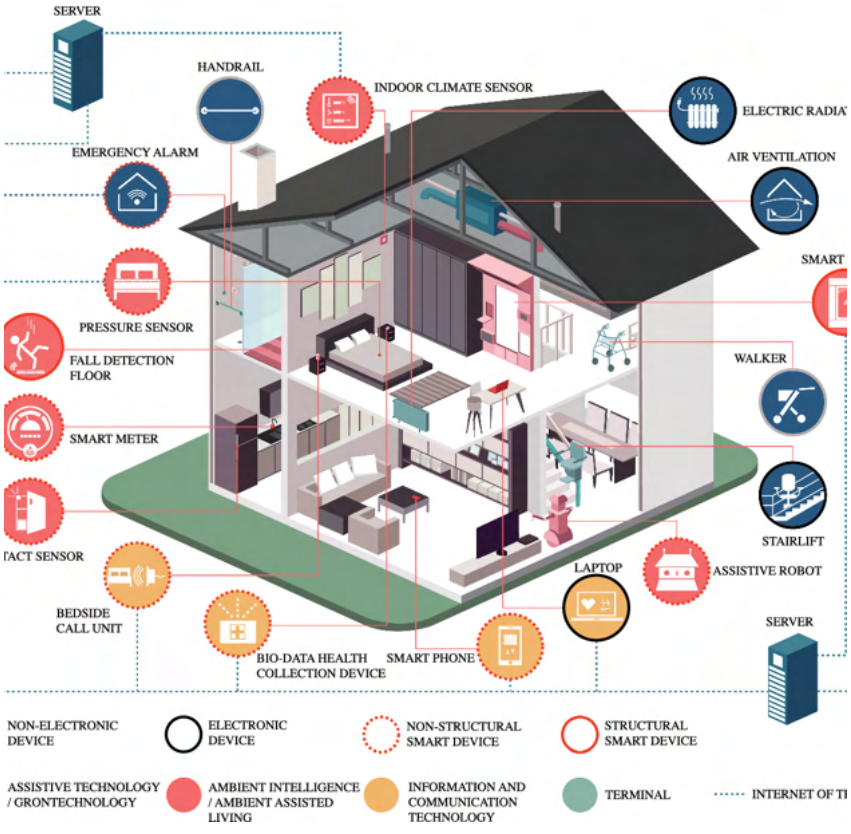
sword

Wearables

Ambient sensors in research

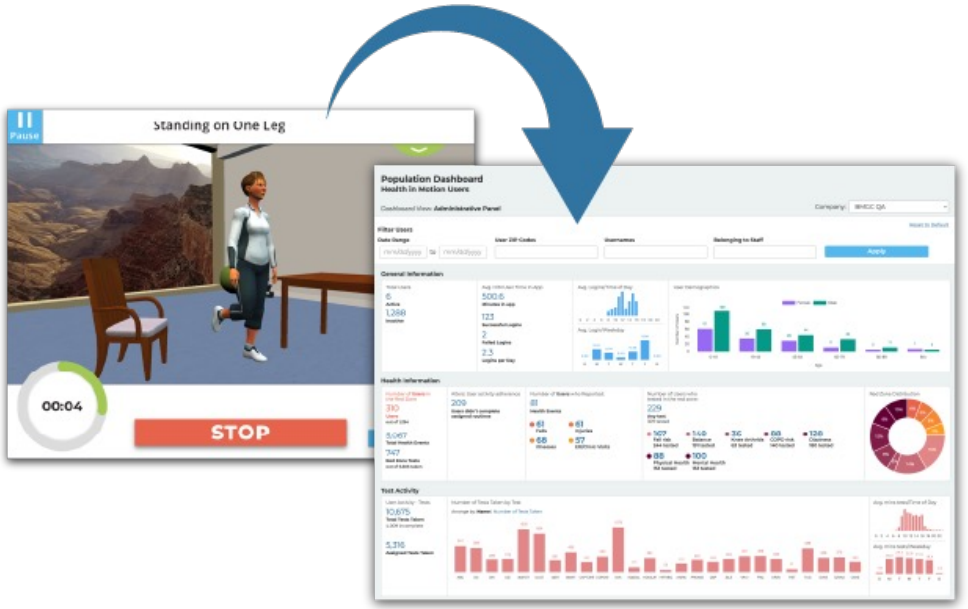
Ambient sensors and aging in place

- Ma, C., Guerra-Santin, O. & Mohammadi, M. Smart home modification design strategies for ageing in place: a systematic review. *J Hous and the Built Environ* 37, 625–651 (2022). https://doi.org/10.1007/s10901-021-09888-z



Telehealth

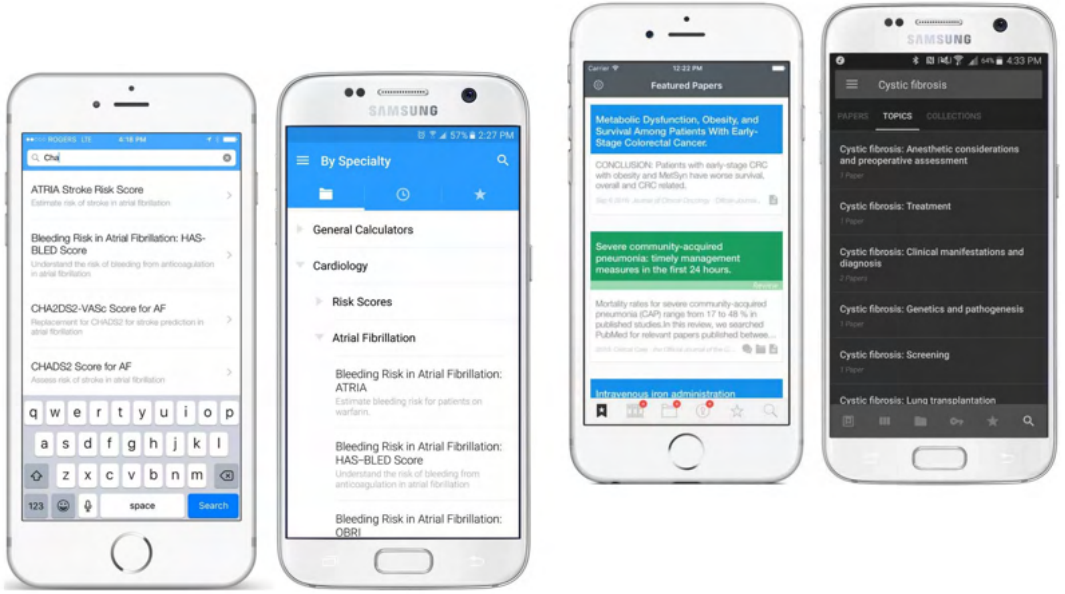
Remote Therapeutic Monitoring



Blue Marble Health

Apps for healthcare

- Reminder apps
- Scheduling apps
- Nutrition apps
- Mental Health Services apps
- Women's Health apps
- Chronic Disease Management apps
- Cost comparison apps



QxMD

Rank these tools from most to least important to you as a clinician

Electronic Health Records

Mobile Health Applications

Virtual Health Care/Telehealth

AI and Machine Learning

Augmented reality/Mixed reality/Virtual reality

Connected sensor technology

Digital therapeutics

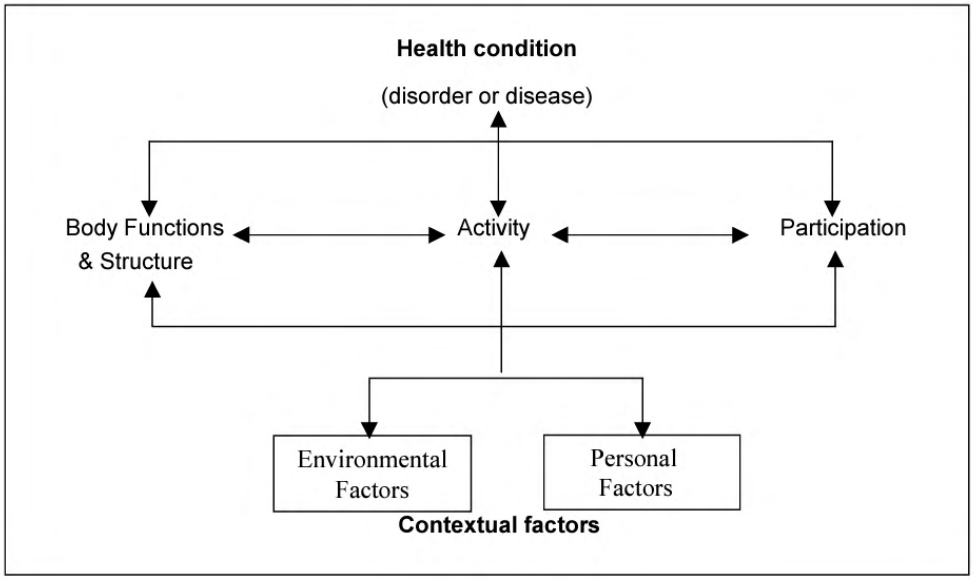
SEE MORE

What attributes of digital devices are important to clinicians in rehabilitation?

- 5 attributes that were unanimously important across all contexts of practice that the most acceptable digital tools have these elements
    1. Patient outcomes
    2. Patient engagement
    3. Usability
    4. Research Evidence
    5. Risk

Pearce LMN, Howell M, Yamato TP, et al. What attributes of digital devices are important to clinicians in rehabilitation? A cross-cultural best-worst scaling study. *Int J Med Inform*. 2024;191:105589. doi: 10.1016/j.ijmedinf.2024.105589.

Patient Outcomes



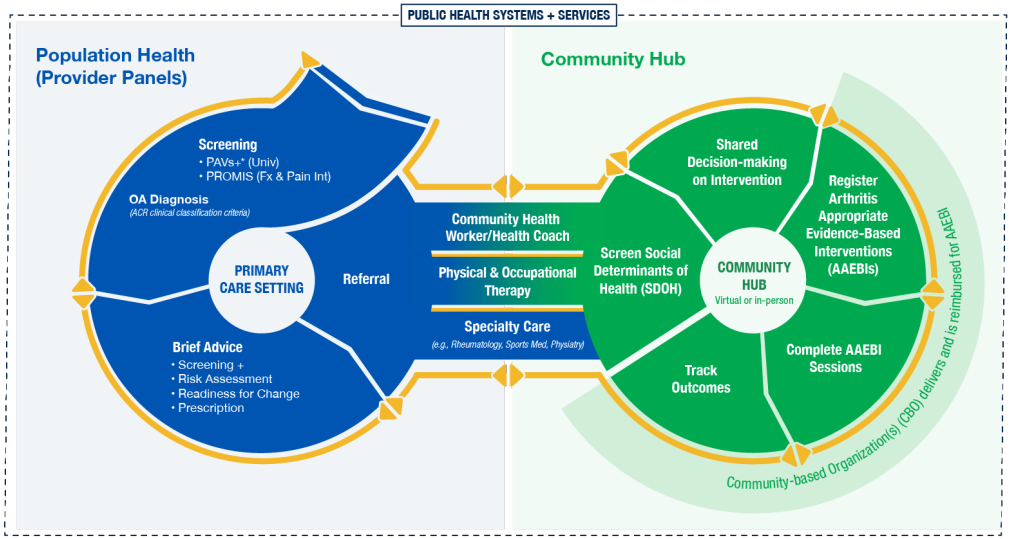
HOW SIMPLE COULD THIS BE?

- 16 patients randomized to an 8-session physical activity intervention or to usual postop care after surgery.
- Intervention
  - wearable device (ie, Fitbit)
  - telehealth counseling by a PT
- Feasibility measures: recruitment, randomization, retention, and participation rates
- Acceptability measures: satisfaction survey and median within-participant change in objective physical activity (steps per day and time spent in moderate-to-vigorous physical activity [MVPA]) and patient-reported outcomes
- All participants in the intervention group found the wearable device and telehealth counseling to be helpful and reported it much or somewhat more important than other postoperative services.
  - Median within-participant change for steps per day improved from baseline (preoperative) to 6 months after surgery for both the intervention (1070) and usual care (679) groups, while MVPA only improved for the intervention group (2.2. minutes per day)

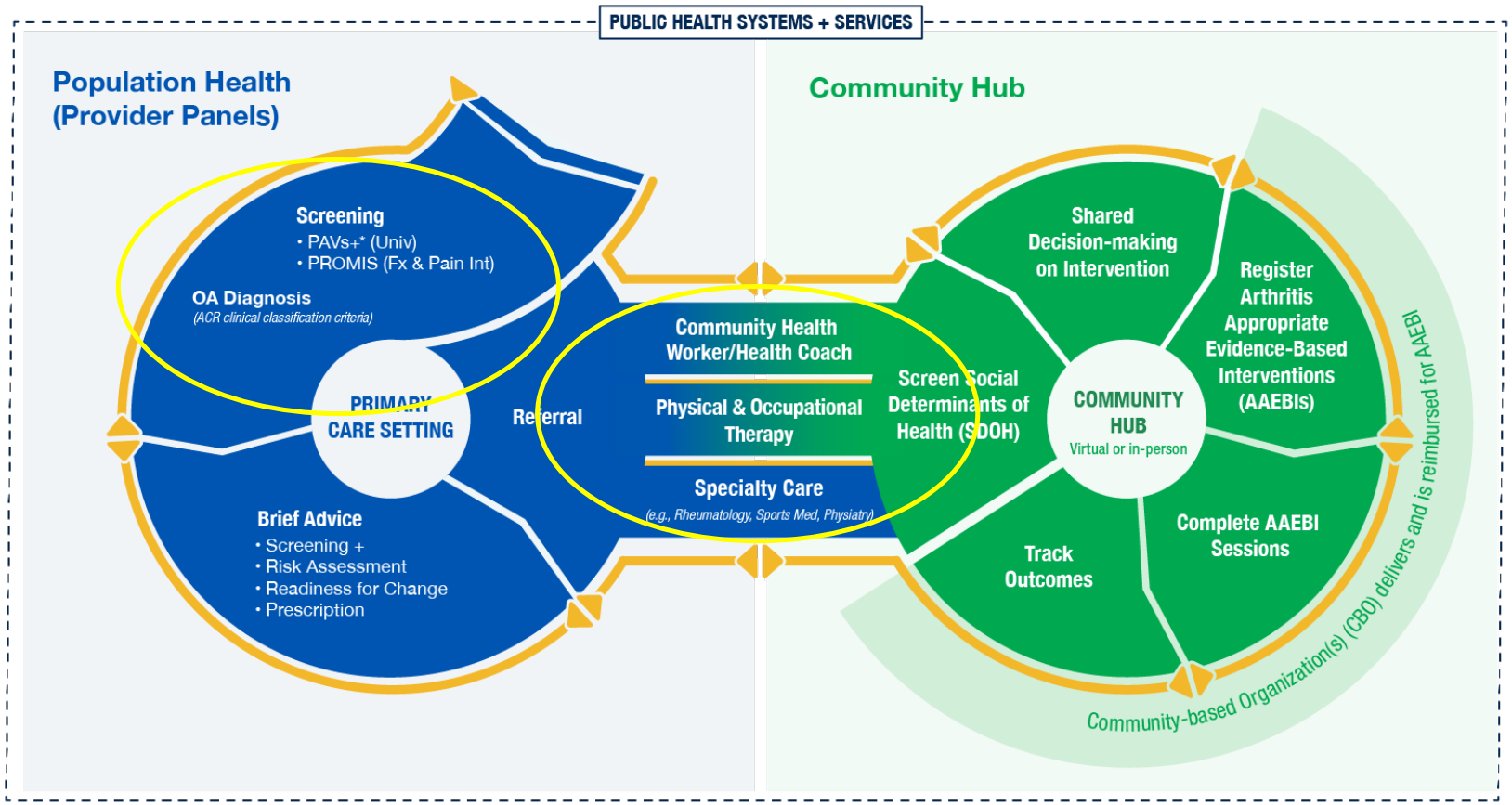
Master H, Coronado RA, Whitaker S, et al. Combining Wearable Technology and Telehealth Counseling for Rehabilitation After Lumbar Spine Surgery: Feasibility and Acceptability of a Physical Activity Intervention. *Phys Ther*. 2024;104(2):pzad096. doi: 10.1093/ptj/pzad096.

HOW COMPLEX COULD THIS BE?

A Public Health Framework for Collaborative Arthritis Management and Wellbeing

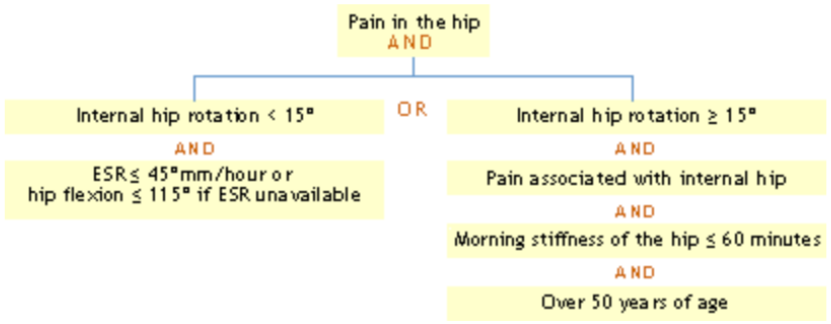


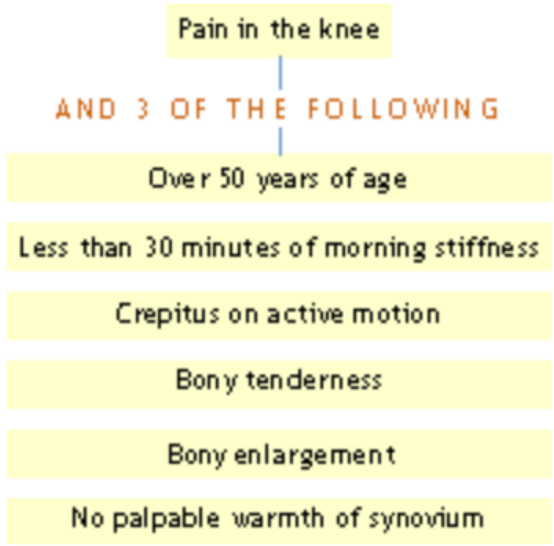
A Public Health Framework for Collaborative Arthritis Management and Wellbeing



Diagnostics

ACR Guidelines for Clinical Classification





Screening - Physical Activity Vital Sign

1. On average, how many days per week do you engage in physical activity?
   - ___ days
2. On average, how many minutes do you engage in physical activity at this level?
   - ___ minutes
3. Rate the intensity of your weekly physical activity:
   - light (casual walk); moderate (brisk walk), vigorous physical activity (jog)?

Calculation #1 x #2 = Minutes/week light or mod/vig.; (US National guideline = 150 min/week moderate or vigorous physical activity)

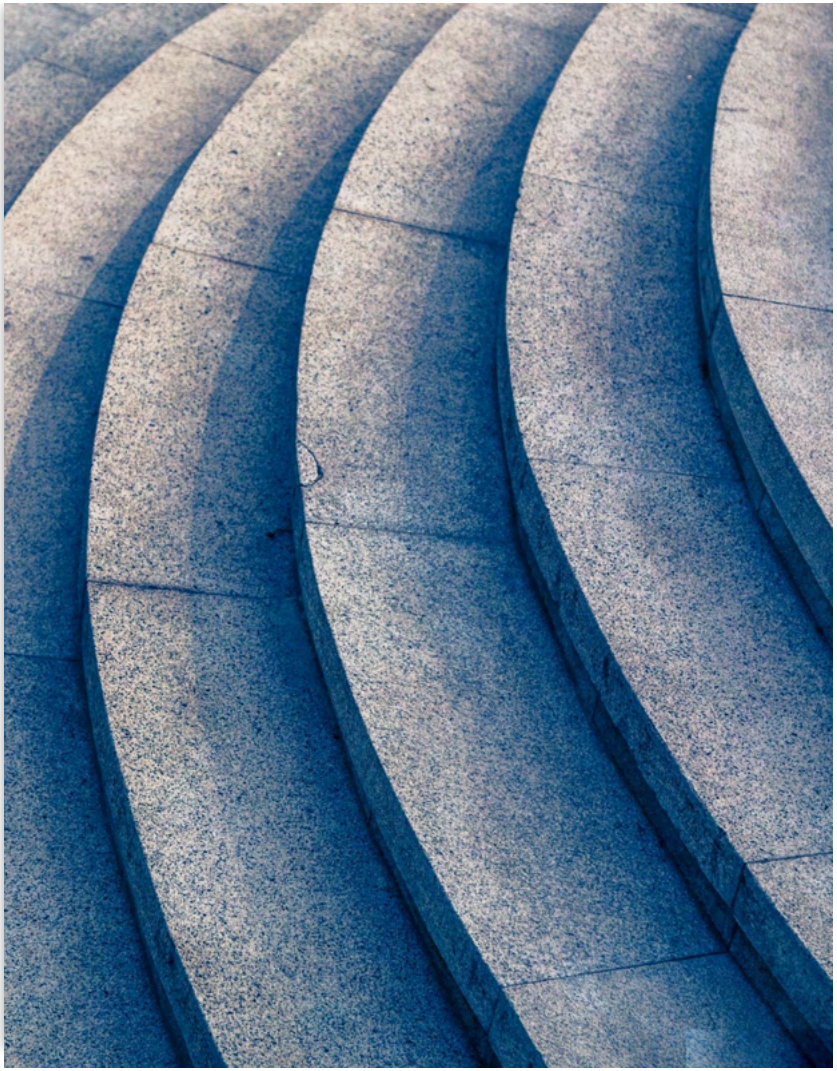
4. How many days a week do you perform muscle strengthening exercises, such as bodyweight exercises or resistance training? ___ days

Patient outcomes - Osteoarthritis

- What is most important to measure and track?
  - Use ICF framework – consider
    - Pain interference
    - Physical Function
    - Physical Activity Vital sign
    - Falls

PROMIS® v2.0 – Physical Function 4a

- Response options (5): Without any difficulty (5) → Unable to do (1)
- *In the past 7 days,* are you able to…
  - Do chores such as vacuuming or yard work?
  - Go up and down stairs at a normal pace?
  - Go for a walk of at least 15 minutes?
  - Run errands and shop?
- **Calculation:** Raw score is the sum of all 4 items, can be converted to t-scores.
  - Impairment is rated as:
    - Within Normal Limits (18-20), Mild (15-17), Moderate (7-14), or Severe (4-6)



PROMIS® v1.1 – Pain Interference 4a

- Response options (5): Not at all (1) → Very much (5)
- *In the past 7 days…* How much did pain interfere with
  - Your day-to-day activities?
  - Work around the home?
  - Your ability to participate in social activities?
  - Your household chores?
- **Calculation:** Raw score is the sum of all 4 items, can be converted to t-scores.
  - Symptoms are rated as:
    - Within Normal Limits (4-7), Mild (8-11), Moderate (12-18), or Severe (19-20)

Fall risk screen

STEADI (US CDC)

- The Stopping Elderly Accidents, Deaths & Injuries (STEADI) Initiative comprises three core elements: screen, assess, and intervene

Three key questions for patients [at risk if YES to any question]

- Do you feel unsteady when you are standing or walking?
- Do you worry about falling?
- Have you fallen in the past year?

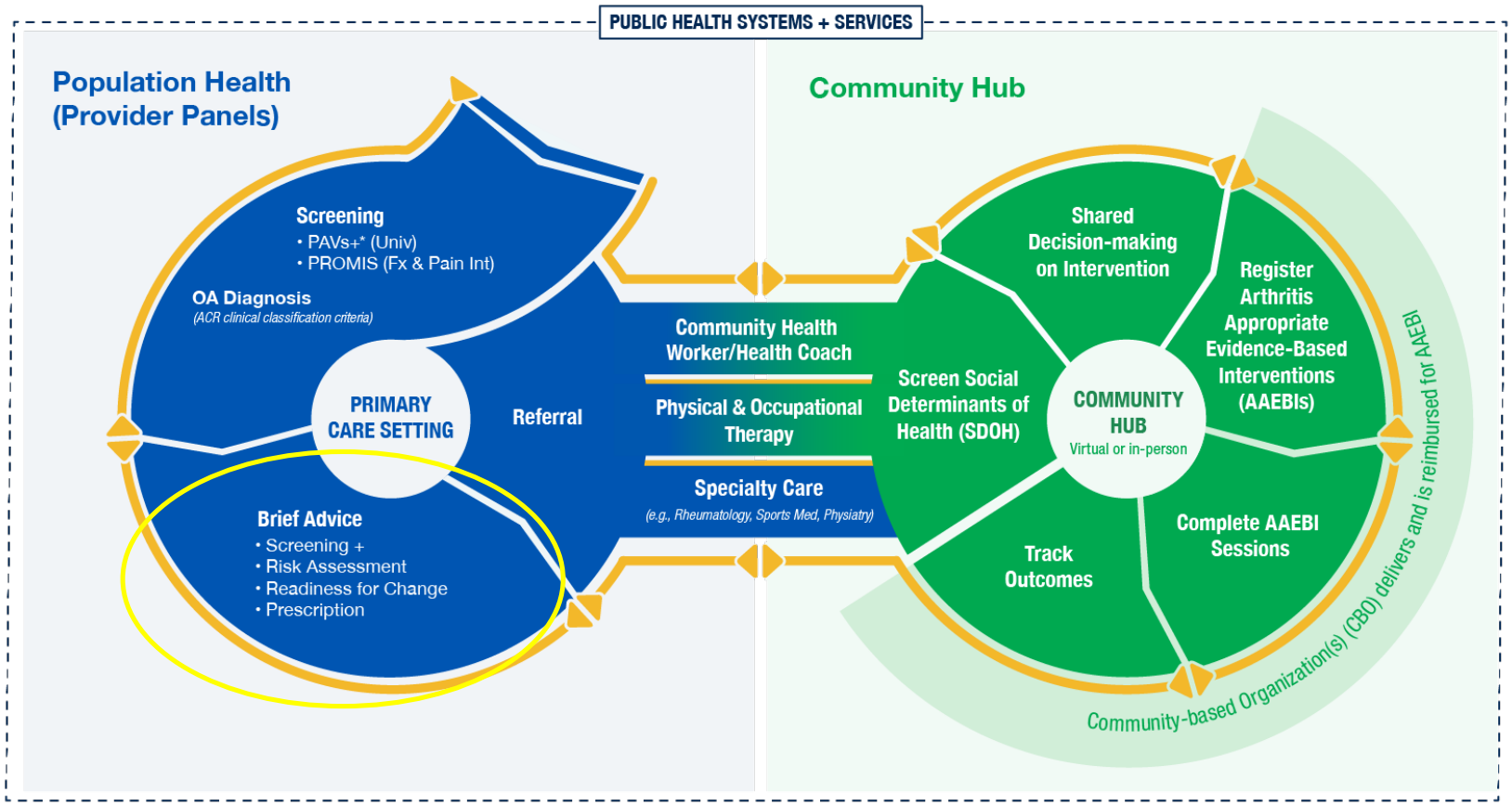
Check Your Risk for Falling

Circle "Yes" or "No" for each statement below			Why it matters
Yes (2)	No (0)	I use or have been advised to use a cane or walker to get around safely.	People who have been advised to use a cane or walker may already be more likely to fall.
Yes (1)	No (0)	I steady myself by holding onto furniture when walking at home.	This is also a sign of poor balance.
Yes (1)	No (0)	I need to push with my hands to stand up from a chair.	This is a sign of weak leg muscles, a major reason for falling.
Yes (1)	No (0)	I often have to rush to the toilet.	Rushing to the bathroom, especially at night, increases your chance of falling.
Yes (1)	No (0)	I take medicine that sometimes makes me feel light-headed or more tired than usual.	Side effects from medicines can sometimes increase your chance of falling.
Yes (1)	No (0)	I often feel sad or depressed.	Symptoms of depression, such as not feeling well or feeling slowed down, are linked to falls.
Total _____		Add up the number of points for each "yes" answer. If you scored 4 points or more, you may be at risk for falling. Discuss this brochure with your doctor.	

To check your risk online, visit: www.bit.ly/3o4RiW8

This checklist was developed by the Greater Los Angeles VA Geriatric Research Education Clinical Center and affiliates and is a validated fall risk self-assessment tool (Rubenstein et al. J Safety Res; 2011: 42(6)493-499). Adapted with permission of the authors.

A Public Health Framework for Collaborative Arthritis Management and Wellbeing



What is digital?

Referral source uses EHR

E-referral system with unique patient identifier so that information flows directly to referral host (HL-7/FHIR standards)

PAVS measure can be actualized with the HL-7 reference implementation

Referral recipient uses EHR or Electronic information system

Receives and responds to referral

Integrates data into system

Generates outcomes

Closes the loop back to the referral source

Uses data from the HL-7 reference implementation for physical activity

HL7 ?????????

Key concepts for digital health (informatics)

Figure 1. Concept map of informatics in human health and healthcare

Chevan J, Pak SS, Wilkinson SG, Toole E. Building a foundation for health informatics content in physical therapy education through concept analysis and concept mapping. *J Phys Ther Educ*. 37(1):24-30;2023.
doi: 10.1097/JTE.0000000000000267.

Interoperability

- The ability of different information systems, devices and applications (systems) to **access, exchange, integrate and cooperatively use** data in a coordinated manner, within and across organizational, regional and national boundaries, to provide timely and seamless **portability** of information and **optimize the health of individuals and populations globally.**

4 levels of interoperability

1. **Foundational**
   - Establishes the inter-connectivity requirements needed for one system or application to securely communicate data to and receive data from another
2. **Structural**
   - Defines the format, syntax and organization of data exchange including at the data field level for interpretation
3. **Semantic**
   - Provides for common underlying models and codification of the data including the use of data elements with standardized definitions from publicly available value sets and coding vocabularies, providing shared understanding and meaning to the user
4. **Organizational**
   - Includes governance, policy, social, legal and organizational considerations to facilitate the secure, seamless and timely communication and use of data both within and between organizations, entities and individuals. These components enable shared consent, trust and integrated end-user processes and workflows

Interoperability standards

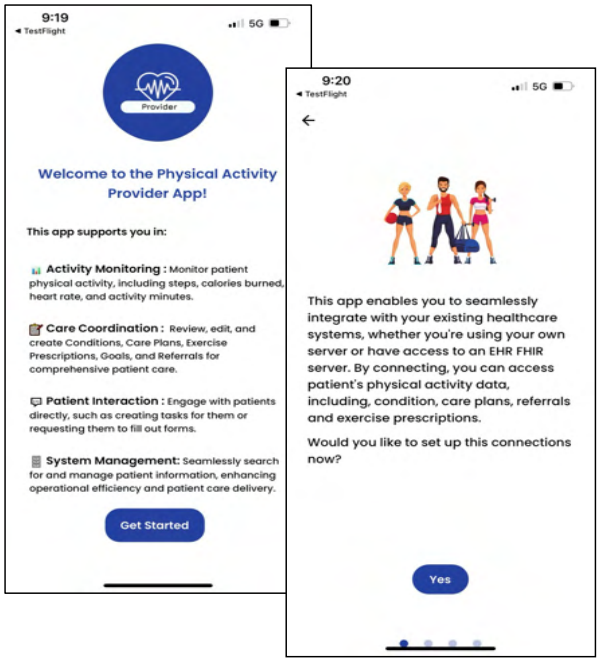
- Common language that enables interoperability
- Common set of expectations that enables interoperability

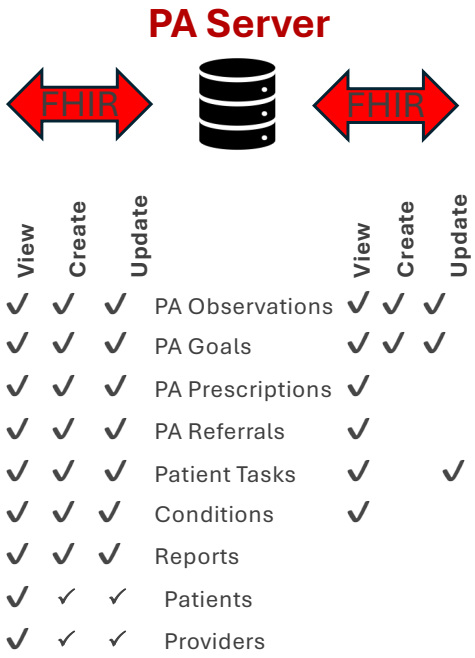
- Examples
  - HL7
  - SNOMED (Systematized NOmenclature of MEDicine)

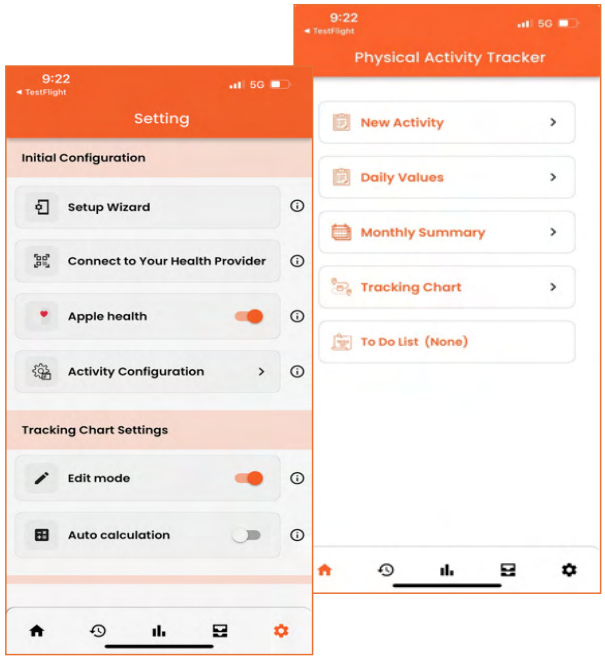
Transport standards

- Address the format of messages exchanged between computer systems, document architecture, clinical templates, user interface and patient data linkage.
- Standards center on “push” and “pull” methods for exchanging health information.
- Example: FHIR®
  - Fast Healthcare Interoperability Resources: An HL7 standard for exchanging healthcare information electronically.
  - Basic building blocks of FHIR are “resources,” which describe exchangeable health data formats and elements.
  - FHIR also provides standardization for application programming interfaces (APIs).

Reference implementations







Some other digital approaches to monitoring and measuring physical activity

- EXI Therapeutics
  - https://www.exi.life/us/
- Vitala
  - https://www.vitala.health/
- HALT platform
  - Diabetes training

EXI

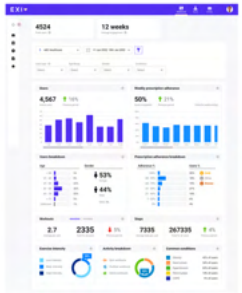
Web API

Lightweight, fast and suitable for specialised integrations and server-side implementations. Our API library allows you to create specific functionalities and a high level of customization.

Member App

An easy to use app designed to help people throughout their journey:

- Personal heart rate zone
- Personal weekly minutes
- Personal exercise days
- Connect wearable data
- Motion capture guided workouts to learn how to exercise safely
- Guided workouts to warm up and cool down adequately
- Guided workouts to improve strength and cardio fitness effectively
- Share updates for mood, pain, fatigue and symptoms
- View adherence and progress week on week
- Learn about nutrition, confidence, habit building and more

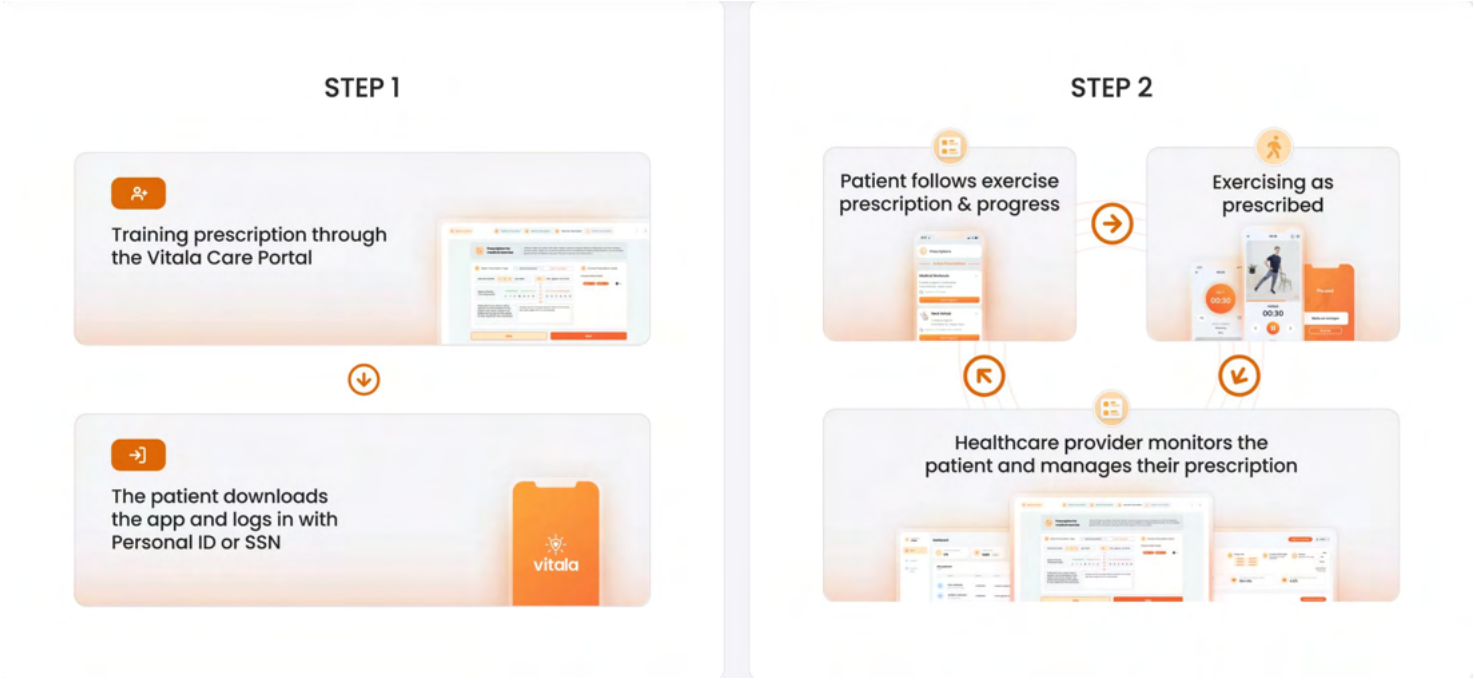


Data Insights

Health improvements and costs savings

- A secure and penetration tested portal
- GDPR and HIPPA compliant
- Seamless integration with wearables and apps
- Tracking program adherence
- Implementing rewards
- Real-time remote monitoring available to healthcare professionals
- Per person view available to healthcare professionals

Vitala “exercise as medicine”



What are the outcomes?

What did you learn today?

Nobody has responded yet.

Hang tight! Responses are coming in.

What are your next actions?

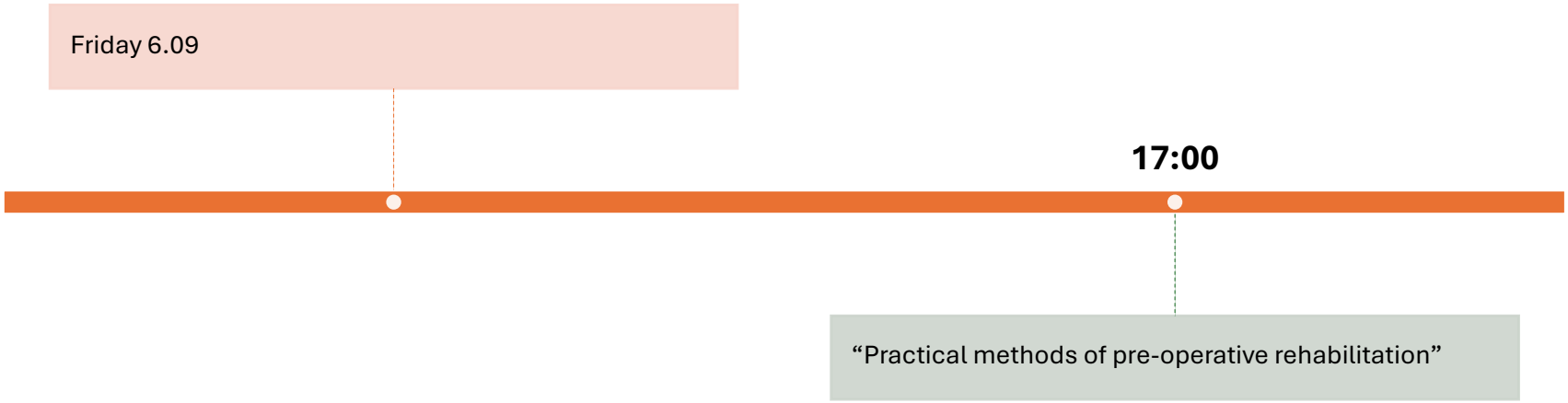
Nobody has responded yet.

Hang tight! Responses are coming in.

Thank you

Julia Chevan

jchevan@springfieldcollege.edu


Friday 6.09
17:00
“Practical methods of pre-operative rehabilitation”

Content Outline and Learning Outcomes

- Content Outline
  - Evidence-Based Programs for Chronic Disease with a focus on OA
- Objectives
  - Learners will identify a evidence-based program that they will bring into their clinical setting to treat at the population level.

Remember World Physiotherapy Day 2023?

Evidence-Based Program Packages

Julia Chevan, PT, DPT, PhD, MPH

Preoperative Factors Associated With Postoperative Outcomes Following Total Knee Arthroplasty for Osteoarthritis

- Age: Older patients were more likely to be discharged to destinations other than home compared to those who were discharged home
- Gender: females were more likely than males to be discharged to non-home destinations
- Comorbidities: Body mass index (BMI) over 30 kg/m2 was associated with an increased likelihood of non-home discharges in nine studies, with even higher probabilities for BMIs over 40 kg/m2
- Obesity: Body mass index (BMI) over 30 kg/m2 was associated with an increased likelihood of non-home discharges in nine studies, with even higher probabilities for BMIs over 40 kg/m2

Nasu T, Yamanoi J, Kitagawa T (July 20, 2024) The Investigation of Preoperative Factors Associated With Postoperative Outcomes Following Total Knee Arthroplasty for Osteoarthritis: A Scoping Review. Cureus 16(7): e64989. doi:10.7759/cureus.64989

Dell'Isola A, Jönsson T, Nero H. Factors Associated With the Outcome of a First-Line Intervention for Patients With Hip or Knee Osteoarthritis or Both: Data From the BOA Register, *Phys Ther*. 2020;100(10):1771–1781. https://doi.org/10.1093/ptj/pzaa113

- "In people with hip or knee OA, age, sex, body mass index, and previous surgery are only weakly associated with the change in pain after a first-line intervention supporting the evidence recommending exercise and education as a foundation for all OA therapy."

EBP Program Elements

- Delivery of training
  - In-person
  - Online
  - Telephone
  - Hybrid
- Composition of training
  - Individual
  - Group
- Length/# sessions

EBP Topic areas addressed

- Alzheimer's/Dementia
- Behavioral Health
- Cancer
- Falls Prevention
- Osteoarthritis
- Pain Management
- Physical Activity/Exercise & Fitness

OA programs (AAEBI)

Physical Activity Programs

- AEA Arthritis Foundation Exercise Program
- Active Living Everyday
- Arthritis Foundation Aquatic Program
- Enhance® Fitness
- Fit & Strong! and Fit & Strong! Plus
- **GLA:D®**
- My Knee Exercise Program
- **Otago Exercise Program**
- Stay Active and Independent for Life
- Tai Chi for Arthritis
- Tai Ji Quan: Moving for Better Balance
- **Walk With Ease/Camine Con Gusto – Self-Directed & Group**

Self Management Education Programs

- Better Choices, Better Health®
- Chronic Disease Self-Management Program
- Chronic Pain Self-Management Program
- Enhance® Wellness
- Program to Encourage Active, Rewarding Lives (PEARLS)
- Toolkit for Active Living with Chronic Pain
- Toolkit for Active Living with Chronic Conditions
- Workplace Chronic Disease Self-Management Program

GLA:D®

Good life with osteoarthritis Denmark

- Research Unit for Musculoskeletal Function and Physiotherapy at the University of Southern Denmark
- Since 2013

GLA:D® goals

- Access to an evidence-based program of patient education and exercise for **all** adults.
- The only time surgery is indicated is when nonoperative treatment fails.

GLA:D® Key Elements

- Education of PTs to be the delivery system of patient education and neuromuscular exercise training
- Two sessions of patient education
- At least 6 weeks of neuromuscular exercise at a GLA:D® unit
- Registration of patient data in the GLA:D® registry

GLA:D® outcomes

- Reduced pain
- Reduced use of analgesic medications
- Improved physical function
- Increasing levels of physical activity
- Improved quality of life

GLA:D® neuromuscular exercises

GLA:D® Hip and Knee Exercises

How to implement GLA:D® (11 steps)

1. A licensing contract between University of Southern Denmark and the organization responsible for implementation of GLA:D® in the new country is written up and signed.
2. Quantitative and qualitative data from health care professionals, patients and their relatives on beliefs about osteoarthritis and its prevention and treatment is collected.
3. A group of future GLA:D®trainers (4-6 physiotherapists/osteoarthritis researchers), a journalist and a representative from the health care authorities (or alike) travel to Denmark for a week to see GLA:D® being performed in local physiotherapy clinics and to visit University of Southern Denmark to learn more about exercise therapy as treatment for osteoarthritis.

How to implement GLA:D® (11 steps)

4. The Danish team (2-3 people) goes to the new country for a week to train the trainers in a 2-day course. This course is conducted in English. During the visit plans for implementation and adaptions of the original GLA:D® program are also discussed.
5. Translate and adapt the GLA:D® material into the local language and culture. This step also includes getting input from local patients with osteoarthritis to be enrolled in focus groups of 3-5 people.
6. Translate and culturally adapt the questionnaires needed to evaluate the effectiveness into the local language and culture.

How to implement GLA:D® (11 steps)

7. Establish and culturally adapt the questionnaires needed to evaluate the effectiveness into the local language and culture.
8. A website similar to the GLA:D® websites in Denmark, Australia and Canada is set up in the local language with information about osteoarthritis and its treatments.
9. A media campaign (TV, printed media, social media) is conducted to impact on patients, clinicians and society's awareness about osteoarthritis and their beliefs about exercise therapy as effective treatment of osteoarthritis. The GLA:D® certified clinicians are encouraged to use media and spread the word in their local area to patients, GPs, orthopaedic surgeons and other stakeholders.

How to implement GLA:D® (11 steps)

10. The Danish team visits the new country twice a year to follow-up on quality and progress of research.
11. To facilitate national uptake, GLA:D® courses for local clinicians from different regional areas are held in the local language by the 4-6 trainers taking the initial expanded course in English (2 people are needed for the practical part to train 10-20 local clinicians per course, in Denmark 6 people are needed to train 80 clinicians).

Countries with a GLA:D® program

- Denmark
- Canada
- Australia
- China
- Switzerland
- New Zealand
- Austria

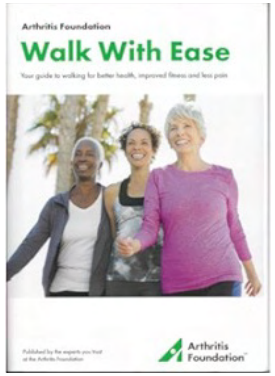
Key references

- Skou ST, Odgaard A, Rasmussen JO, Roos EM. Group education and exercise is feasible in knee and hip osteoarthritis. *Dan Med J*. 2012;59(12):A4554.
- Skou ST, Simonsen ME, Odgaard A, Roos EM. Predictors of long-term effect from education and exercise in patients with knee and hip pain. *Dan Med J*. 2014;61(7):A4867.
- Skou ST, Roos EM. Good Life with osteoArthritis in Denmark (GLA:D™): evidence-based education and supervised neuromuscular exercise delivered by certified physiotherapists nationwide. *BMC Musculoskelet Disord*. 2017;18(1):72. doi: 10.1186/s12891-017-1439-y.
- Davis AM, Kennedy D, Wong R, Robarts S, Skou ST, McGlasson R, Li LC, Roos E. Cross-cultural adaptation and implementation of Good Life with osteoarthritis in Denmark (GLA:D™): group education and exercise for hip and knee osteoarthritis is feasible in Canada. *Osteoarthritis Cartilage*. 2018;26(2):211-219. doi: 10.1016/j.joca.2017.11.005.
- King LK, Young JJ, Grønne DT, Bricca A, Roos EM, Skou ST, Hawker GA. GLA:D to Be Walking Better: Change in Self-Reported Difficulty Walking After Exercise Therapy and Education in Persons With Knee Osteoarthritis. *J Rheumatol*. 2024:jrheum.2023-1213. doi: 10.3899/jrheum.2023-1213.
- Roos EM, Grønne DT, Skou ST, Zywiel MG, McGlasson R, Barton CJ, Kemp JL, Crossley KM, Davis AM. Immediate outcomes following the GLA:D® program in Denmark, Canada and Australia. A longitudinal analysis including 28,370 patients with symptomatic knee or hip osteoarthritis. *Osteoarthritis Cartilage*. 2021;29(4):502-506. doi: 10.1016/j.joca.2020.12.024.

https://gladinternational.org/key-research-publications/

Walk with Ease

- Developed by Thurston Arthritis Research Center and the Institute on Aging of the University of North Carolina
- Program includes
  - Health education
  - Exercises
  - Walking program



Walk with Ease Goals

- To promote education about successful physical activity for people with arthritis
- To promote education about arthritis self-management and walking safely and comfortably
- To encourage participants to continue their walking program and explore other exercise and self-management programs that deliver proven benefits for people with arthritis.

Walk with Ease program format

- Group with instructor
  - 1 hour 3 times per week for 6 weeks
- Self-directed
  - Enhanced self-directed

Walk with Ease Instructor Qualifications

- Online WWE Leader training.
- At least one trained leader per group.
- Current certification in CPR is required. (Live skills training required; online-only courses are not acceptable.) First aid certification is strongly recommended.
- Professional liability insurance coverage with an aggregate/single occurrence limit not less than one million dollars ($1,000,000.00) for personal injury or property damage, unless covered by the host facility's comprehensive or professional liability insurance policy.

Walk with Ease Outcomes

- Reduced pain
- Improved function
- Improved health related quality of life

Key references

- Callahan LF, Shreffler JH, Altpeter M, Schoster B, Hootman J, Houenou LO, Martin KR, Schwartz TA. Evaluation of group and self-directed formats of the Arthritis Foundation's Walk With Ease Program. *Arthritis Care Res*. 2011;63(8):1098-107. doi: 10.1002/acr.20490.
- Silverstein RP, VanderVos M, Welch H, Long A, Kaboré CD, Hootman JM. Self-Directed Walk With Ease Workplace Wellness Program - Montana, 2015-2017. *MMWR Morb Mortal Wkly Rep*. 2018;67(46):1295-1299. doi: 10.15585/mmwr.mm6746a3.
- Zimmerman ZE, Cleveland RJ, Kostic AM, Leifer VP, Weisner SE, Allen KD, Golightly YM, Welch H, Dale M, Messier SP, Hunter DJ, Katz JN, Callahan LF, Losina E. Walk with ease for knee osteoarthritis: A cost-effectiveness analysis. *Osteoarthr Cartil Open*. 2023;5(3):100368. doi: 10.1016/j.ocarto.2023.100368.
- Kumara MT, Cleveland RJ, Kostic AM, Weisner SE, Allen KD, Golightly YM, Welch H, Dale M, Messier SP, Hunter DJ, Katz JN, Callahan LF, Losina E. Budget impact of the Walk With Ease program for knee osteoarthritis. *Osteoarthr Cartil Open*. 2024;6(2):100463. doi: 10.1016/j.ocarto.2024.100463.

Otago Exercise Program

- The Otago program is a structured and progressive exercise program with the goal of improving:
  - Lower extremity strength
  - Balance
  - Mobility
- Exercises can be progressed, and when ready, the participant is prescribed a walking program

Otago

- Developed and tested by the New Zealand Falls Prevention Research Group
- https://www.med.unc.edu/aging/cgwep/wp-content/uploads/sites/865/2024/04/Otago-Guide-for-PT_April-2024-update.pdf

Otago Exercise Program Content

- 17 exercises in total
  - 5 strengthening
  - 12 balance
- Program format
  - In-person 1-on-1
  - In-person class/group
  - Remote delivery by phone, email or video conference
  - Virtual class/group
  - At home/self-directed
- 30-60 minutes per session, 2-3 times/week
- Best results when participation exceeds 17 weeks
- Group sessions often offered in 8-week segments

Otago Exercise Levels and Repetitions			
WARM-UP (FLEXIBILITY) EXERCISES			
Head Movements	Stand tall, 5 times on each side	Trunk Movements	Stand tall, 5 times each side
Neck Movements	Stand tall, 5 times	Ankle Movements	Stand or sit, 10 times
Back Extension	Stand tall, 5 times		
STRENGTHENING EXERCISES			
Knee Extensor	**ALL 4 LEVELS** Ankle weights are used to provide resistance; perform 10 repetitions of each exercise, when able to do 2 sets of 10 repetitions add/progress weights.		
Knee Flexor			
Hip Abductor			
Calf Raises	**LEVEL C** 10 repetitions, hold support, repeat	**LEVEL D** 10 repetitions, no support, repeat	
Toe Raises	10 repetitions, hold support, repeat	10 repetitions, no support, repeat	

Otago Exercise Levels and Repetitions				
BALANCE RETRAINING EXERCISES				
	LEVEL A	**LEVEL B**	**LEVEL C**	**LEVEL D**
Knee Bends	10 repetitions Hold support	10 repetitions No support *or* 10 repetitions Hold support, repeat	10 repetitions No support, repeat	10 repetitions, 3 times No support
Backwards Walking		10 steps, 4 times Hold support		10 steps, 4 times No support
Walking And Turning Around		Walk and turn around (do a figure 8) twice Use walking aid	Walk and turn around (do a figure 8) twice No support	
Sideways Walking		10 steps, 4 times Use walking aid	10 steps, 4 times No support	
Tandem Stance (Heel Toe Stand)	10 seconds Hold support	10 seconds No support		
Tandem Walk (Heel Toe Walk)			Walk 10 steps Hold support, repeat	Walk 10 steps No support, repeat
One Leg Stand		10 seconds, Hold support	10 seconds, No hold	30 seconds, No hold
Heel Walking			10 steps, 4 times Hold support	10 steps, 4 times No support
Toe Walk			10 steps, 4 times Hold support	10 steps, 4 times No support
Heel Toe Walking Backwards				Walk 10 steps No support, repeat
Sit To Stand	5 stands, 2 hands for support	5 stands, 1 hand *or* 10 stands, 2 hands for support	10 stands, no support *or* 10 stands, 1 hand for support, repeat	10 stands No support, repeat
Stair Walking	As instructed	As instructed	As instructed	As instructed, repeat

Key references

- Campbell, A.J. and Robertson, M.C. Otago exercise programme to prevent falls in older adults. https://hfam.ca/wp-content/uploads/2020/04/Otago-Exercise-Program.pdf Accessed July 11, 2023.
- Hornbrook, M.C., et al., Preventing falls among community-dwelling older persons: results from a randomized trial. *The Gerontologist*, 1994. 34(1): p. 16-23.
- Xie C, Wang W, Pei J, Wang H, Lv H. Effect of Otago exercise on falls in patients with osteoarthritis: A protocol for systematic review and meta-analysis. *Medicine*. 2020;99(50):e23559. doi: 10.1097/MD.0000000000023559.
- Mat S, Ng CT, Tan PJ, Ramli N, Fadzli F, Rozalli FI, Mazlan M, Hill KD, Tan MP. Effect of Modified Otago Exercises on Postural Balance, Fear of Falling, and Fall Risk in Older Fallers With Knee Osteoarthritis and Impaired Gait and Balance: A Secondary Analysis. *PM R*. 2018;10(3):254-262. doi: 10.1016/j.pmrj.2017.08.405.

Physical Activity AAEBI Cross-Sectional Table

	Active Living Every Day	AEA Arthritis Foundation Exercise Program	AEA Arthritis Aquatic Program	Enhance Fitness *	Fit & Strong!*	Good Life with osteoArthritis: Denmark (GLA:D)	My Knee Exercise Program	Otago Exercise Program	Tai Chi for arthritis	Tai Ji Quan: Moving for Better Balance	Walk WIth Ease + Camine Con Gusto (Spanish version of WWE)
Priority Audience	Adults of all ages are referred by a variety of organizations such as worksites, hospitals, community health programs, colleges, fitness centers, older adult programs and residences, and grant-funded initiatives.	Adults suffering from arthritis and similar conditions, seniors, active and sedentary adults	Adults with arthritis, related rheumatic diseases or musculoskeletal conditions, ranging from people who are older, sedentary and very limited by impaired joint mobility to those who are relatively active with only mild joint involvement	Older adults from frail to fit and people aging with disability	Older adults with osteoarthritis in lower extremities	People with symptoms of knee and hip osteoarthritis (regardless of stage of osteoarthritis)	People with knee osteoarthritis	Almost anyone can use this program with appropriate adaptations, from frail to fit and people aging with disability.	Almost anyone can use this program with appropriate adaptation for individual conditions, especially people with arthritis or other chronic conditions, who are sedentary, and would like to improve their activities levels, physical function and wellness of body and mind.	Older adults with leg muscles weakness, abnormal gait, walking difficulty, or at risk of falling. Also people with movement or balance disorders	People with arthritis and people who seek to improve physical activity levels
Program Content	• Active Living Every Day is an evidence-based behavior change program. The approach is unique because it addresses the root causes of inactivity rather than simply prescribing exercise. • Using facilitated group-based problem-solving methods to integrate physical activity into everyday living, participants learn the skills they need to become and stay physically	• Exercise planning • Low impact exercises • Stretching • Balance exercises • Strengthening exercises • Sitting, staning, or lying exercises • Daily living skills	A recreational group exercise program conducted in warm water that consists of two levels, Basic and Plus. Exercises in the Basic level: • Improve range of motion • Increase Muscle strength and endurance • Reduce pain and stiffness • Maintain or improve mobility, muscle strength and functional ability. Also includes Endurance-building routines, relaxation exercises and health education topics.	• Fitness Assessment • Cardiovascular Exercise • Dynamic/Static Balance Work • Strength Training with Weights as Appropriate • Flexibility exercises • Socialization	• Stretching • Balance exercises • Range of motion exercises • Resistance exercises • Exercises that mimic daily activities • Problem-solving and self-management skill building • Plan ongoing personal exercise programs	Neuromuscular exercise program: • Aerobic warm-up • 10 exercises (4 levels of difficulty) for core and lower body • Cool-down (stretch and gait training) Self-management educational sessions: • Knowledge about osteoarthritis and evidence-based treatment • Exercise and self-management strategies	• Osteoarthritis education information • A recommended 6 month leg strengthening exercise program • guidance to increase general physical activity levels	17 exercises in total: • 5 strengthening • 12 balance	Gentle tai chi exercises that can be adapted by almost anyone to improve control of: • Arthritis symptoms • Balance • Reduce falls • Improve flexibility, strength, and cardiovascular fitness. • Improve immunity • Reduce stress to gain more tranquility	An evidence-based fall prevention program derived from a contemporary routine known as Simplified 24-Form Tai Ji Quan (pronounced tye gee chuwan). • TJQMBB consists of an 8-form core with built-in Tai Ji Quan - Mini Therapeutic Movements®.	• Health education • Stretching and strengthening • Warm-up and cool-down exercises • 10-35 minute walk

	Active Living Every Day	AEA Arthritis Foundation Exercise Program	AEA Arthritis Aquatic Program	Enhance Fitness *	Fit & Strong!*	Good Life with osteoArthritis: Denmark (GLA:D)	My Knee Exercise Program	Otago Exercise Program	Tai Chi for arthritis	Tai Ji Quan: Moving for Better Balance	Walk WIth Ease + Camine Con Gusto (Spanish version of WWE)
Program Benefits/ Goals/ Outcomes	This program allows participants to: • Identify and address barriers to physical activity • Increase self-confidence about becoming physically active • Create realistic goals and rewards for physical activity • Develop Social Support • Recover from lapses in physical activity	• Improved range of motion • Improved stability • Better health • Increased motor skills	• Overall sense of well-being • Better quality of life • Reduce pain/inflammation • Increase social interaction • Fun, safe and effective way to promote better health • Improved joint function • Increased Muscular Strength	• Maintains or improves physical function • Protects against falls and fall injury • Decreases depression • Provides a social benefit • Promotes a physically active lifestyle • Reduces medical-care utilization costs (~$945/participant annually) • Saves healthcare costs for managed care plans • Decreases skilled nursing costs • Decreases unplanned hospitalizations	• Improve exercise frequency • Reduce arthritis-related joint pain and stiffness • Increase strength • Improve confidence in ability to exercise	Results from more thank 75,000 participants show: • Decreased pain • Reduced intake of pain killers • Improved chair stands capacity • Increased walking speed • Improved quality of life • Cost-effective	• Reduced knee pain • Improved physical function • Improved quality of life • Improved pain self-efficacy	The Otago program is a structured and progressive exercise program with the goal of improving: • Lower extremity strength • Balance • Mobility. These exercises can be progressed, and when ready, the participants is prescribed a walking program	• Relief of arthritis pain • Improve balance • Feel better with oneself • Improve self-efficacy • Reduce falls • Improve physical function and health in general	• Improving postural stability • Awareness and mindful control of body positioning in space • Functional walking • Movement symmetry and coordination • Range of motion around the ankle and hip joints • Lower-extremity muscle strength • Global cognitive function. • Improved balance • Improved physical performance • Preventing falls and injurious falls	The overall goals of the Walk With Ease Program are: • To promote education about successful physical activity for people with arthritis • To promote education about arthritis self-management and walking safely and comfortably • To encourage participants to continue their walking program and explore other exercise and self-management programs that deliver proven benefits for people with arthritis.
Program Format	• In-person class/group • 1-on-1 in-person • Remote delivery by phone, email, or video conferencing	• In-person class/group • Virtual self-directed	• In-person group	• Instructor Led In-person class/group sessions • Virtual class/group sessions	• Instructor-led in-person group sessions	• In-person, group based supervised sessions • Virtual format available in some countries	• Virtual self-directed/self paced	• In-person 1-on-1 • In-person class/group • Remote delivery by phone, email or video conference • Virtual class/group • At home/self-directed	• In-person class/group sessions • At home/self directed with video	• In-person class/group • In-person at home • Online group	• Self-Directed • Group format with Instructor
Class Size	• 8-15 participants (maximum of 20)	• 5-25 participants	• No greater than 20 participants	• 10-25 participants	• 20-25 participants	• Commonly 5-8 participants (recommended no more than 12)	N/A, self-directed	• N/A for self-directed • 1-on-1 • 10-20 for group session	• 1 to 20 participants for in-person session		• N/A for Self-Directed • For Group ideal class size is 12 - 15 participants per leader.

	Active Living Every Day	AEA Arthritis Foundation Exercise Program	AEA Arthritis Aquatic Program	Enhance Fitness *	Fit & Strong!*	Good Life with osteoArthritis: Denmark (GLA:D)	My Knee Exercise Program	Otago Exercise Program	Tai Chi for arthritis	Tai Ji Quan: Moving for Better Balance	Walk WIth Ease + Camine Con Gusto (Spanish version of WWE)
Program Sessions / Duration	• 1-hour, 1 time per week	• 30 to 60 minutes, 2-3 times per week	• 1 hour, 2-3 times a week	• 1 hour, 3 times per week	• 90 minutes, 3 times per week	Self-management education sessions: • 60-90 minutes, once weekly for 2 weeks (some clinics offer a third session lead by former participant) Neuromuscular exercise sessions: • 60 minutes, 2 times per week for 6 weeks	• 30 minutes recommended per each session, 3 times a week	• 30-60 minutes, 2-3 times per week	• 1 hour, 1-2 times a week	• 1 hour, 1-2 times a week	• 1 hour, 3 times per week (group)
Total Program Length	• 12 weeks	• Ongoing	• 11 weeks or Ongoing	• Most are ongoing. • 16 weeks for pre & post measurement	• 8 weeks	• 6-8 weeks	• 3, 8-week recommended regimens totalling 24 weeks (6-months)	• Best results are seen when participation exceeds 17 weeks • Group sessions often offered in 8-week segments	• 8 to 16 weeks • Ongoing if desired	• 12-24 weeks • Encouraged 24 weeks	• 6 weeks
Instructor Qualifications	• A trained facilitator who may have a background as a wellness coach, certified fitness instructor, nurse, teacher, public health professional, or a lay leader. • At least 1 trained facilitator is needed per class.	• AFEP trained • CPR/AED	• AFAP Certification • CPR/AED • Must have either lifeguard or water safety certification	• 12 hours of specialized EnhanceFitness Master training • Nationally recognized fitness certification or equivalent strongly recommended	Certified exercise instructor or Master Trainers for A Matter of Balance or Chronic Disease Self-Management Program.	• Certified health care practitioner (most commonly physiotherapist) • GLA:D certified (2-day course on osteoarthritis, evidence-based treatment, registry-based effect evaluation, practical training on delivery of the neuromuscular exercise program and self-management education)	N/A	• Instructors need to be trained in the Otago program • Online training (directed to physical therapists)	• Instructor certified by the Tai Chi for Health Institute and CRP	• Preferred trained lay leader/facilitator, fitness instructor, physical therapist, occupational therapist, nurse, certified fitness instructor • Individuals who are interested in teaching this community-based fall prevention program must receive training through authorized TJQMBB trainers.	• Online WWE Leader training. • At least one trained leader per group. • Current certification in CPR is required. (Live skills training required; online-only courses are not acceptable.) First aid certification is strongly recommended. • Professional liability insurance coverage with an aggregate/single occurrence limit not less than one million dollars for personal injury or property damage, unless covered by the host facility's comprehensive or professional liability insurance policy.

	Active Living Every Day	AEA Arthritis Foundation Exercise Program	AEA Arthritis Aquatic Program	Enhance Fitness *	Fit & Strong!*	Good Life with osteoArthritis: Denmark (GLA:D)	My Knee Exercise Program	Otago Exercise Program	Tai Chi for arthritis	Tai Ji Quan: Moving for Better Balance	Walk WIth Ease + Camine Con Gusto (Spanish version of WWE)
Program Licensing	Yes	No	No	No	Yes	Yes	No		Yes	Yes	No
Language Offerings	• English	• English • Korean • Spanish	• Spanish	• Classes offered at sites in 16 languages. (Languages noted are spoken by participants & instructors in class, not language of class materials). • Class and instructor training materials are available in English and Mandarin	• English • Spanish	• English (Canada, Australia, New Zealand, Ireland) • Danish (Denmark) • German (Switzerland, Austria, Germany) • Chinese (China) • French (Switzerland) • Italian (Switzerland) • Dutch (The Netherlands)	• English		• English • Chinese • Spanish	• English	• English • Spanish - Camine Con Gusto
Cost	• The Active Living Every Day, Third Edition text is required and costs $49.95 per book. Bulk discounts apply on quantities of 25 or more. • The Active Living Every Day Facilitator Training Course/Facilitator package is $399 per facilitator. Bulk discounts for 5 or more facilitator training packages are available.	• $109	• Participant cost varies, participant manuals are $2.30 per person • $99-129 training for prospective AFAP	• See website for details: Enhance®Fitness – Program Cost	Project Enhance	• Participant costs: Varies. Around $35 to cover cost of participant manuals. • Leader/ Host Costs: License at $2,000 for the main site and $400 for each satellite site for the first year or $1,000 if only offered at one site. • Manuals for each participant at $35 each.	• GLA:D is a not-for profit initiative based at University of Southern Denmark • Instructor cost vary between countries, typically similar to 2-day courses for physiotherapists • Participants cost is at most similar to the cost of a used bicycle	No Cost	Dependent on format and location.	• Around $10 per class per participant		• $89 training for prospective instructors • $11.95 per participant book (required). Discounted books for community based organizations are available.

	Active Living Every Day	AEA Arthritis Foundation Exercise Program	AEA Arthritis Aquatic Program	Enhance Fitness *	Fit & Strong!*	Good Life with osteoArthritis: Denmark (GLA:D)	My Knee Exercise Program	Otago Exercise Program	Tai Chi for arthritis	Tai Ji Quan: Moving for Better Balance	Walk WIth Ease + Camine Con Gusto (Spanish version of WWE)
Research / Journal Article	ALED Intervention evaluation *Currently being tested for remote delivery.	AEA Exercise Program research	Aquatic Exercise Program research Additional research	Enhance Fitness research	See Fit & Strong website page on research evidence	See GLA:D website page on research evidence	My Knee Exercise Program research My Knee Exercise Program research summary	Otago Modality research	See Tai Chi for Arthritis website page on research evidence	See Tai Ji Quan: Moving for Better Balance website page on research evidence	WWE Self-Directed Research Article

Self-Management AAEBI Cross-Sectional Table

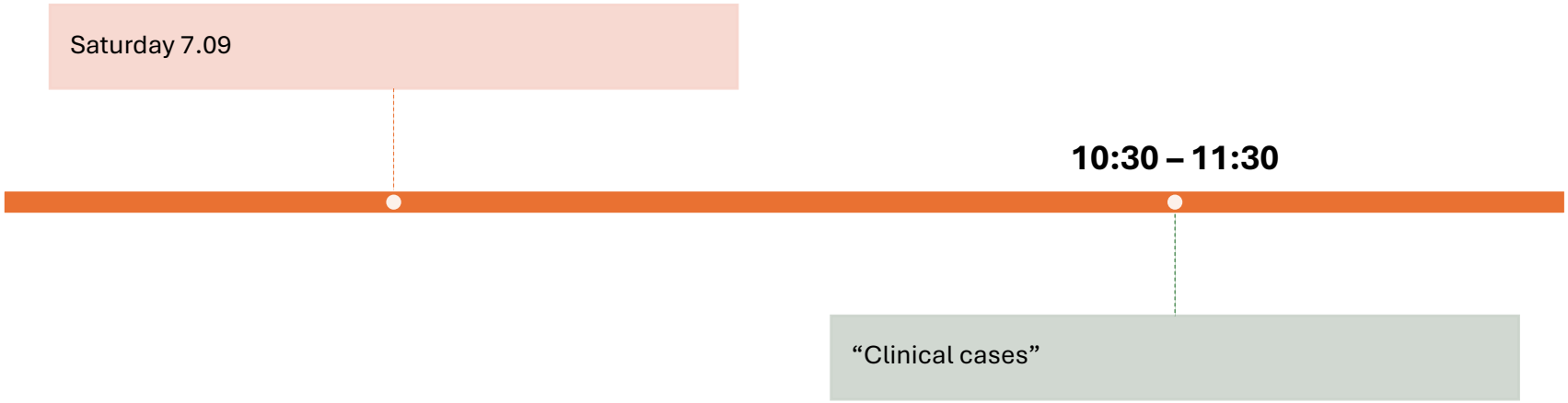
	Better Choices, Better Health (Online CDSMP)	Chronic Disease Self-Manageme nt Program	Tomando Control De Su Salud (Spanish Version of Chronic Disease Self Management Program)	Chronic Pain Self-Management	Workplace Chronic Disease Self-Management Program	Enhance Wellness	Program to Encourage Active, Rewarding Lives (PEARLS)
Priority Audience	Anyone living with one or more chronic health conditions or ongoing symptoms	People with any physical or mental chronic condition or multiple chronic conditions	Spanish-speakers with any physical or mental chronic condition or multiple chronic conditions	People with chronic pain conditions such as back pain, arthritis, or headaches	Employees of the hosting workplace with any physical or mental chronic conditions or multiple chronic conditions	Older adults and people aging with disability	Older adults living in poverty with multiple chronic conditions who are reached through social services and underserved by clinical care (e.g. people of color, homebound, limited English proficiency)
Program Content	• Goal Setting • Action Planning • Decision Making • Problem Solving • Communications • Symptom Management • Exercise • Healthy Eating • Managing Medications • Stress Management • Managing Emotions • Navigating Resources • Working with Your Healthcare Team • Planning for the Future	• An interactive workshop where participants learn skills to manage their chronic conditions on a day to day including: • exercise • healthy eating • symptom management (pain, fatigue, sleep, shortness of breath, stress and depression) • weight loss • communication skills. Core self-management skills taught include: • action planning • problem solving • decision making	• An interactive workshop where participants learn techniques to deal with symptoms of chronic conditions such as: • fatigue • pain • sleeplessness • shortness of breath • stress • emotional problems such as depression, anger, fear and frustration. Core self-management techniques that are taught include: • topics to help with healthy eating • appropriate use of medications • managing depression • decision making • appropriate exercises for maintaining and improving strength, flexibility and endurance	• For those living with chronic pain, participants can learn the skills to manage their pain on a day to day basis including: • exercise • healthy eating • cognitive pain management Participants will also learn how to deal with such concerns as: • fatigue • sleep problems • difficult emotions • weight loss • communicating with family, friends, and coworkers Core self-management skills taught	• An interactive group workshop where participants learn self-management skills to manage their conditions on a day-to-day basis including: • balancing work and home life • exercise • healthy eating • pain • fatigue • sleep • shortness of breath • stress • depression • weight loss • communication skills Self-management skills taught include: • action planning • problem solving • decision making	• Connects participants with a personal health coach to improve physical, emotional and social well-being. • based on the Chronic Care Model, • EW's participant-centered approach uses motivational interviewing techniques and validated assessment tools in 10+ domains to guide Health Action Plan creation and accountability. • Through the use of problem-solving strategies participants can clarify goals, responsibilities, and activities as they work toward health-related behavioral change.	• Brief behavioral interventions for depression including: • problem-solving and • pleasant physical and social activity planning (behavioral activation) • teaching about what depression is and isn't (psychoeducation) • social support • connection to other social and health services

	Better Choices, Better Health (Online CDSMP)	Chronic Disease Self-Manageme nt Program	Tomando Control De Su Salud (Spanish Version of Chronic Disease Self Management Program)	Chronic Pain Self-Management	Workplace Chronic Disease Self-Management Program	Enhance Wellness	Program to Encourage Active, Rewarding Lives (PEARLS)
Program Benefits/ Goals/ Outcomes	• Improved Health Status • Increased Health Behaviors • Improved A1-c • Increased Self-Efficacy • Reduced Pain and Fatigue	• Improved Health Behaviors: (exercise, medication adherence, communication with health professionals) • Reduced Symptoms: (pain, fatigue, shortness of breath, depression) • Reduced health care utilization (ED visits, physician visits, hospital days)	• Improved Health Behaviors: (exercise, medication adherence, communication with health professionals) • Reduced Symptoms: (pain, fatigue, shortness of breath, depression) • Reduced health care utilization (ED visits, physician visits, hospital days)	• Less pain: (Improved quality, problem, severity) • Other outcomes: (Less depression, less dependency, increased self-efficacy, improved role behaviors and life satisfaction)	• Improved exercise and eating behaviors • Reduced fatigue	• 72% decrease in hospital days • 35% decrease in psychoactive medication use • 11% decrease in depression • Significant reduction in rehospitalizations and HMO utilization – overall increased health	• Lower depression, social isolation and loneliness • Improved well-being
Program Format	• Virtual Self-Directed/Self-Paced for 6 weeks.	• In-person Group Workshop • Virtual Group Workshop • Mailed Toolkit with or without Phone Call Check-in	• In-person Group Workshop • Virtual Group Workshop • Mailed Toolkit with or without Phone Call Check-in	• In-person Group Workshop • Virtual Group Workshop • Mailed Toolkit with or without Phone Call Check-in	• In-person Group Workshop • Mailed Toolkit with or without Phone Call Check-in	• In-person 1-on-1 format	• 1-on-1 In person • Virtual Remote Format • Over-The-Phone Remote Format
Class Size	• 20-30 participants	• 12-14 participants for face-to-face workshop • 8-12 for virtual workshop	• 12-14 participants for face-to-face workshop • 8-12 for virtual workshop • 3-5 participants per Toolkit with scripted phone call workshop	• 12-14 participants for face-to-face workshop • 8-12 for virtual workshop	• 12-14 participants for face-to-face workshop • 3-5 participants per Tool Kit with scripted phone call workshop	• N/A, 1-on-1 format	• N/A, 1-on-1 format

	Better Choices, Better Health (Online CDSMP)	Chronic Disease Self-Manageme nt Program	Tomando Control De Su Salud (Spanish Version of Chronic Disease Self Management Program)	Chronic Pain Self-Management	Workplace Chronic Disease Self-Management Program	Enhance Wellness	Program to Encourage Active, Rewarding Lives (PEARLS)
Program Sessions/ Duration	• 30 min sessions 3 times a week	• In-Person and Virtual Workshop: 2 and ½ hours per session • Mailed Toolkit *with* phone calls: 45-60 minute small group phone calls per session • Mailed Toolkit *without* phone calls: Self-Directed	• In-Person and Virtual Workshop: 2 and ½ hours per session • Mailed Toolkit *with* phone calls: 45-60 minute small group phone calls per session • Mailed Toolkit *without* phone calls: Self-Directed	• In-Person and Virtual Workshop: 2 and ½ hours per session • Mailed Toolkit *with* phone calls: 45-60 minute small group phone calls per session • Mailed Toolkit *without* phone calls: Self-Directed	• In-Person Workshop: 50-55 minutes per session • Mailed Toolkit *with* phone calls: 25-30 minute small group phone calls per session • Mailed Toolkit *without* phone calls: Self-Directed	• Variable, dependent on need.	• 6 to 8 one hour sessions tapered weekly to monthly
Total Program Length	• 6 weeks plus ongoing alumni community group	• In-person workshop: 1 session per week for 6 weeks • Virtual workshop: 1 session per week for 6 weeks • Mailed Toolkit *with* phone calls: 1 session per week for 6 weeks • Mailed Toolkit *without* weekly phone calls is self-directed.	• In-person workshop: 1 session per week for 6 weeks • Virtual workshop: 1 session per week for 6 weeks • Mailed Toolkit *with* phone calls: 1 session per week for 6 weeks • Mailed Toolkit *without* weekly phone calls is self-directed.	• In-person workshop: 1 session per week for 6 weeks • Virtual workshop: 1 session per week for 6 weeks • Mailed Toolkit *with* phone calls: 1 session per week for 6 weeks • Mailed Toolkit *without* weekly phone calls is self-directed.	• In-person workshop: 2 sessions per week for 6 weeks • Mailed Toolkit *with* phone calls: 2 sessions per week for 6 weeks • Mailed Toolkit *without* weekly phone calls is self-directed	• 6 months	• 6-8 months

	Better Choices, Better Health (Online CDSMP)	Chronic Disease Self-Manageme nt Program	Tomando Control De Su Salud (Spanish Version of Chronic Disease Self Management Program)	Chronic Pain Self-Management	Workplace Chronic Disease Self-Management Program	Enhance Wellness	Program to Encourage Active, Rewarding Lives (PEARLS)
Instructor Qualifications	• Canary Peers certified online facilitator (complete 6-week facilitator training)	• Trained by SMRC-certified Master Trainers, 2 trained Leaders, one or both of whom are non-health professionals with a chronic condition themselves, for both in person and virtual workshops For Phone-led workshops, only 1 leader is needed.	• Trained by SMRC-certified Master Trainers, 2 trained Leaders, one or both of whom are non-health professionals with a chronic condition themselves, for both in person and virtual workshops For Phone-led workshops, only 1 leader is needed.	• Trained by SMRC-certified Master Trainers, 2 trained Leaders, one or both of whom are non-health professionals with a chronic condition themselves, for both in person and virtual workshops For Phone-led workshops, only 1 leader is needed.	• Trained by SMRC-certified Master Trainers, 2 trained Leaders, one or both of whom are non-health professionals with a chronic condition themselves, for both in person and virtual workshops For Phone-led workshops, only 1 leader is needed.	• Social Workers, Registered Nurses, Community Health Workers, Registered Dietitians, others with Motivational Interviewing Experience • See website for more details. Enhance®Wellness - Become A Coach - Project Enhance	• PEARLS Coach training (distance): • an online, self-paced training course and an additional 90-minute, live-over-Zoom practice session.
Program Licensing	Yes	Yes	Yes	Yes	Yes	Yes	No
Language Offerings	English	• English • French Canadian • Chinese • French • Italian • Hmong • Hindi • Russian • Vietnamese • Arabic • Creole-Haitian • Finnish • Danish • Samoan • Tongan • For Spanish and Portuguese	• English, See: Chronic Disease Self-Management Program • Portuguese	• English • Spanish • French • Canadian	• English • Spanish	• 1:1 program, materials are in English but program offered in variety of languages by bilingual coaches	• We have community-translated PEARLS forms available in English, Spanish, Chinese, Somali and Russian. • In addition, organizations have delivered PEARLS in Cantonese, Ilocano, Korean, Khmer, Mandarin, Ukrainian, Vietnamese, Tagalog.

	Better Choices, Better Health (Online CDSMP)	Chronic Disease Self-Manageme nt Program	Tomando Control De Su Salud (Spanish Version of Chronic Disease Self Management Program)	Chronic Pain Self-Management	Workplace Chronic Disease Self-Management Program	Enhance Wellness	Program to Encourage Active, Rewarding Lives (PEARLS)
Cost	• Canary offers a turn key service and provides facilitators, workshop administration, book fulfillment, access to a platform with 6 week workshop and ongoing alumni community. • Organizations purchase workshop slots at approximately $275 per workshop participant that shows up to the program	• License Cost $550: lasts three years and includes 20 workshops. • Participants' books cost: 15 to 20 dollars a person depending on volume ordered.	• License Cost $550: lasts three years and includes 20 workshops. • Participants' books cost: 15 to 20 dollars a person depending on volume ordered.	• License Cost $550: lasts three years and includes 20 workshops. • Participants' books cost: 15 to 20 dollars a person depending on volume ordered.	• License Cost $550: lasts three years and includes 20 workshops. • Participants' books cost: 15 to 20 dollars a person depending on volume ordered.	• See website for details: Enhance Wellness Program Cost	• $500/person for PEARLS Coach Training. • Other costs for in-person delivery include staff outreach, screening, and session time-associated costs, mileage reimbursement, and clinical supervision time-associated costs (~1-2 hrs/mo)
Research/ Journal Article	Better Choices Better Health Research Article 1 Articl e 2 Articl e 3	CDSMP Research Articles (Virtual) CDSMP Related Research Articles (Toolkit)	Tomando Control De Su Salud Research Articles	CPSMP Research Articles (Virtual) CPSMP Related Research Articles (Toolkit)	wCDSMP Research Articles	Citations - Project Enhance	Publications	Health Promotion Research Center (washington.edu)


Saturday 7.09
10:30 – 11:30
“Clinical cases”

Content Outline and Learning Outcomes

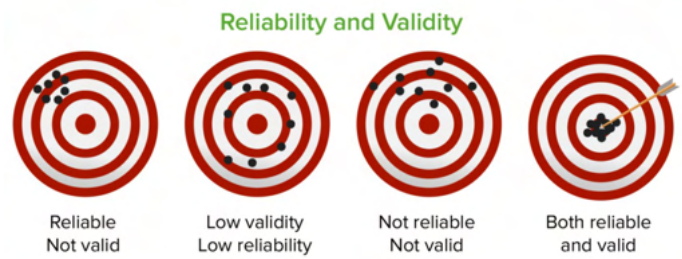
- Content Outline
  - Review of 5 clinical cases provided by physios in Latvia
- Objectives
  - Learners will identify the essential tools needed in physiotherapy to engage with adults who have chronic diseases with a focus on OA.

Outcomes measures

- Tools we use to assess patient status
- Justify our approach to treatment
- Types
  - Self-report
  - Performance-based
  - Observer-reported
  - Clinician-reported
  - Disease-specific vs. General

Qualities of outcome measures we trust

- Psychometrics
  - Validity
  - Reliability
  - Clinical utility
  - Meaningful to the patient
  - Sensitive to change (is this change real?)



Select outcome measures in OA

- Performance-based
  - Five times sit to stand
  - 6 Minute walk test
- Self-reported
  - Physical Activity Vital Sign
  - PROMIS - pain interference
  - PROMIS – global health
  - Western Ontario and McMaster Universities Arthritis Index (WOMAC)
    - Hip disability and Osteoarthritis Outcome Score (HOOS)
    - Knee Injury and Osteoarthritis Outcome Score (KOOS)

Five times sit to stand

- Test Administration:
  - Patient sits with arms folded across chest and with their back against the chair. With patients who have had a stroke, it is permissible to have the impaired arm at the side or in a sling
  - Use a standard chair with arms (keep testing chair consistent for each retest). Chair heights recorded in literature vary, generally 43-45 cm
  - Ensure that the chair is not secured (i.e. against the wall or mat)
  - Patient Instructions: "I want you to stand up and sit down 5 times as quickly as you can when I say 'Go'."
  - Timing begins at "Go" and ends when the buttocks touches the chair after the 5th repetition.
  - Provide one practice trial before measurements are recorded.
  - Inability to complete five repetitions without assistance or use of upper extremity support indicates failure of test. (Any modifications should be documented)
  - Document speed and assist level

Six Minute Walk Test (6MWT)

- The score of the test is the distance a patient walks in 6 minutes.
- Walking is self-paced on a standardized walk space using standardized instructions.
- The patient may take as many standing rests as they like, but the timer should kept running and the number of rests taken and the total rest time recorded.
- Assistive devices are allowed and must be documented.
- Clinician assistance is permitted and must be from posterior so as not to pace the participant, and the level of assist must be documented.
- When administering the test, do not walk in front of or directly beside the patient, as this may “pace” the patient and influence the speed and distance they walk. Instead, walk at least a half step behind the patient.
- If a participant cannot walk but has goals and expectations to regain walking, a 6MWT score of 0 should be documented.
- No talking should be done with the participant during the test other than the scripted and timed feedback outlined in the 6MWT guidelines.

Physical Activity Vital Sign

1. On average, how many days per week do you engage in moderate to strenuous exercise (like a brisk walk)? _____ days
2. On average, how many minutes do you engage in exercise at this level? _____ minutes

Total minutes per week of physical activity (multiply #1 by #2)

- Optional Question (particularly important for older adults):
  - How many days a week do you perform muscle strengthening exercises, such as bodyweight exercises or resistance training? _____ minutes per week _____ days

PROMIS®

- Set of person-centered measures that evaluate and monitor physical, mental, and social health in adults and children.
- Can be used with the general population and with individuals living with chronic conditions.
- https://www.healthmeasures.net/explore-measurement-systems/promis
- Not yet translated into Latvian

PROMIS®

- The PROMIS® Pain Interference instruments measure the self-reported consequences of pain on relevant aspects of a person's life
  - Includes how pain hinders engagement with social, cognitive, emotional, physical, and recreational activities
  - Pain Interference also incorporates items probing sleep and enjoyment in life
- The PROMIS® Global Health instruments measure health related quality of life concepts
  - Satisfaction with social activities and relationships
  - Rating of physical and mental health
  - Rating of fatigue

WOMAC

- Widely used self-administered health status measure assessing pain, stiffness, and function in patients with OA of the hip or knee.
- The WOMAC measures three separate dimensions with a total of 24 items
  1) Pain (5 questions)
  2) Stiffness (2 questions)
  3) Function (17 questions)

- 2 formats available
  - Visual analog scale
  - Likert choice scale

HOOS

- The HOOS is a 40-item self-report questionnaire with 5 subsets.
- The five subscales include:
  1) 10 items on pain
  2) 5 items for symptoms (3 symptoms items, 2 stiffness items)
  3) 17 items for ADLs
  4) 4 items for sports and recreations
  5) 4 items for hip related quality of life.
- Scoring: Each question contains five answer choices ranging from never (score of 0) to extreme (score of 4). A normalized score is calculated for each subscale with 0 indicating extreme symptoms and 100 representing no symptoms.

KOOS

- The KOOS is a 42-item self-report questionnaire with 5 subsets.
- The five subscales include:
  1) 9 items on pain
  2) 7 items for symptoms
  3) 17 items for ADLs
  4) 5 items for sports and recreations
  5) 4 items for knee related quality of life.
- Scoring: Each question contains five answer choices ranging from never/no problems (score of 0) to extreme problems (score of 4). A normalized score is calculated for each subscale with 0 indicating extreme symptoms and 100 representing no symptoms.

Evidence-based care for adults with hip/knee OA

- EULAR recommendations for the non-pharmacologic management of hip and knee osteoarthritis
    1. People with hip or knee OA should be offered an individualized, multicomponent management plan that includes the recommended core non-pharmacological approaches.
    2. People with hip or knee OA should be offered information, education and advice on self-management strategies (considering available modes of delivery) and these should be included and reinforced at subsequent clinical encounters.
    3. All people with hip or knee OA should be offered an exercise program (e.g., strength, aerobic, flexibility or neuromotor) of adequate dosage with progression tailored to their physical function, preferences and available services.
    4. The mode of delivery of exercises (eg, individual or group sessions, supervised or unsupervised, face to face or by using digital technology, land-based or aquatic exercise) should be selected according to local availability and patient preferences. The exercises preferably should be embedded in an individual plan for physical activity.
    5. People with hip or knee OA should be offered education on the importance of maintaining a healthy weight. Those overweight or obese should be offered support to achieve and maintain weight loss.
    6. For people with hip or knee OA, consider walking aids, appropriate footwear, assistive devices and adaptations at home and at work to reduce pain and increase participation.
    7. People with hip or knee OA with or at risk of work disability should be offered timely advice on modifiable work-related factors and, where appropriate, referral for expert advice.
    8. Consider employing elements of behaviour change techniques when lifestyle modifications are needed (eg, physical activity, weight loss) for people with hip or knee OA.

Evidence-based care for adults with hip/knee OA

- EULAR over-arching principles
  1. In people with hip or knee OA, initial assessment should use a biopsychosocial approach to consider physical and psychological status, activities of daily living, participation including work, social determinants and environmental factors.
  2. Treatment of people with hip or knee OA should be based on shared decision-making considering the needs, preferences and capabilities of the individual.

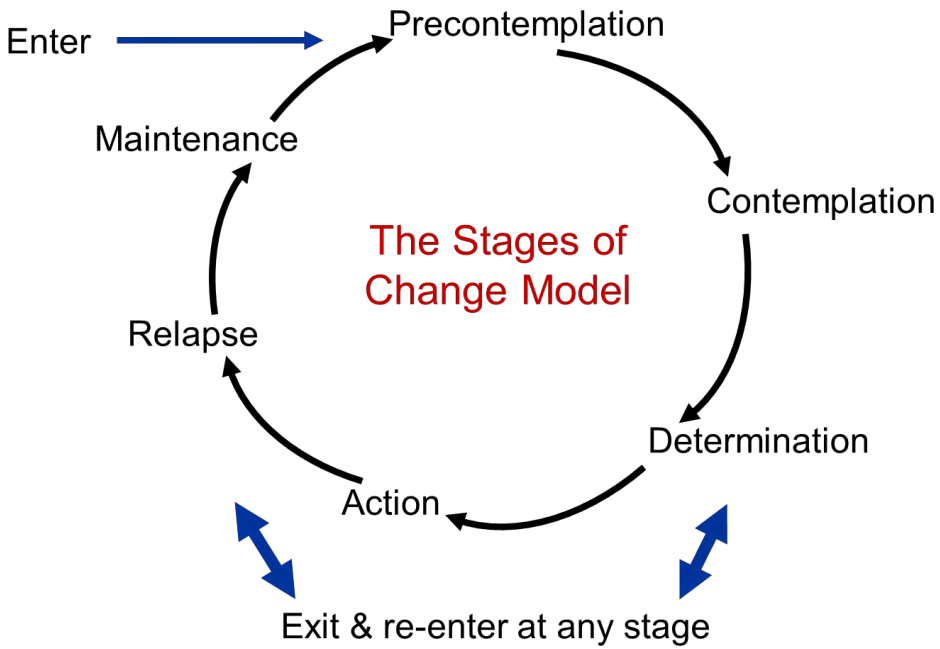
Behavior change models

- Health belief
- Theory of planned behavior
- Social cognitive theory
- Transtheoretical model

Transtheoretical model (stages of change)

- Developed by Prochaska and DiClemente in the late 1970s
- Main assumption
  - People do not change behaviors quickly and decisively
  - Change in behavior, especially habitual behavior, occurs continuously through a cyclical process
- 6 stages of change
  - Precontemplation
  - Contemplation
  - Preparation
  - Action
  - Maintenance
  - Termination

Transtheoretical model



Transtheoretical model

- Precontemplation - In this stage, people do not intend to take action in the foreseeable future (defined as within the next 6 months). People are often unaware that their behavior is problematic or produces negative consequences. People in this stage often underestimate the pros of changing behavior and place too much emphasis on the cons of changing behavior.
- Contemplation - In this stage, people are intending to start the healthy behavior in the foreseeable future (defined as within the next 6 months). People recognize that their behavior may be problematic, and a more thoughtful and practical consideration of the pros and cons of changing the behavior takes place, with equal emphasis placed on both. Even with this recognition, people may still feel ambivalent toward changing their behavior.
- Preparation (Determination) - In this stage, people are ready to take action within the next 30 days. People start to take small steps toward the behavior change, and they believe changing their behavior can lead to a healthier life.
- Action - In this stage, people have recently changed their behavior (defined as within the last 6 months) and intend to keep moving forward with that behavior change. People may exhibit this by modifying their problem behavior or acquiring new healthy behaviors.
- Maintenance - In this stage, people have sustained their behavior change for a while (defined as more than 6 months) and intend to maintain the behavior change going forward. People in this stage work to prevent relapse to earlier stages.
- Termination - In this stage, people have no desire to return to their unhealthy behaviors and are sure they will not relapse. Since this is rarely reached, and people tend to stay in the maintenance stage, this stage is often not considered in health promotion programs.

Motivational interviewing

- Counseling approach to behavior change
- *"MI is a collaborative, goal-oriented style of communication with particular attention to the language of change. It is designed to strengthen personal motivation for and commitment to a specific goal by eliciting and exploring the person's own reasons for change within an atmosphere of acceptance and compassion."* (Miller & Rollnick, 2013, p. 29)

MI

- Partnership and collaborative process
- Recognition of the strengths and resources within the person
- Acceptance
- Compassion
- KEY SKILLS: OARS
  - **Open Questions**
  - **Affirmation**
  - **Reflections**
  - **Summarizing**

MI process

- Engaging: Foundation of MI. The goal is to establish a productive working relationship through careful listening to understand and accurately reflect the person's experience and perspective while affirming strengths and supporting autonomy.
- Focusing: Agenda is negotiated that draws on both the client and practitioner expertise to agree on a shared purpose, which gives the clinician permission to move into a directional conversation about change.
- Evoking: Clinician gently explores and helps the person to build their own "why" of change through eliciting the client's ideas and motivations. Ambivalence is normalized, explored without judgement and, as a result, may be resolved. This process requires skillful attention to the person's talk about change.
- Planning: Planning explores the "how" of change where the MI practitioner supports the person to consolidate commitment to change and develop a plan based on the person's own insights and expertise. This process is optional and may not be required, but if it is the timing and readiness of the client for planning is important.

Combining behavior change and MI

Table 1. Practitioner tasks within the Stages of Change model[1,2]

Patient stage	Practitioner tasks
Precontemplation (Not ready)	Raise doubt and increase the patient's perception of the risks and problems with their current behaviour. Provide harm reduction strategies
Contemplation (Getting ready)	Weigh up the pros and cons of change with the patient and work on helping them tip the balance by: • exploring ambivalence and alternatives • identifying reasons for change/ risks of not changing • increasing the patient's confidence in their ability to change
Preparation – action (Ready)	Clear goal setting – help the patient to develop a realistic plan for making a change and to take steps toward change
Maintenance (Sticking to it)	Help the patient to identify and use strategies to prevent relapse
Relapse* (Learning)	Help the patient renew the processes of contemplation and action without becoming stuck or demoralised

Case 1

- Patient: Female, 50 years old, teacher. Lives with her husband. Has an adult daughter.
- Diagnosis: Initial medial osteoarthritis, femoropatellar chondropathy with cartilage fissures, Baker's cyst
- Date of MRI:May 3, 2024
- Patient History: The patient, a teacher with a sedentary and standing job, first consulted a doctor due to knee pain and difficulty climbing stairs. Symptoms began a year ago when the patient attempted a new method to improve spinal muscle strenght, crawling on her knees without knee pads on a carpet. This activity led to the onset of knee pain, which gradually worsened over time. Over the past year, the patient reported increasing knee pain, particularly when attempting deep squats, which she has been unable to perform for some time. This has significantly affected her daily life and work capacity.
- Current Condition: The patient has been attending physiotherapy sessions once a week since early May 2024, when she was first diagnosed. Initially, she exercised twice a week, which helped reduce her symptoms. Currently, the symptoms have lessened, and the patient plans to return to work. She will continue physiotherapy once a week and is making an effort to walk daily, including using stairs, to improve joint mobility and overall condition.
- Additional Information: The patient has a slightly elevated body mass index (BMI), which may impact joint health and the severity of her symptoms.

Case 2

- Patient: Male, 65 years old
- Diagnosis: Osteoarthritis with planned hip replacement endoprosthesis
- Patient History: The patient is a 75-year-old man diagnosed (July of 2024.) with osteoarthritis, primarily affecting his left hip. He experiences significant pain in the left hip, which severely limits his ability to walk and perform daily activities. Despite the pain, he does not currently use painkillers.
- Current Condition: Due to the severity of his osteoarthritis in the left hip, the patient is scheduled for a hip replacement surgery (endoprosthesis) to restore mobility and alleviate pain. However, there is a 75-week wait for the surgery. The patient is unable to pay for the operation out of his own funds. His ability to walk is currently very limited, and he relies on support for most of his daily activities.
- Cardiovascular History: The patient has a history of cardiovascular disease, specifically higher blood pressure, which he manages with medications prescribed by his cardiologist. His blood pressure is well-controlled under this treatment.
- Additional Information: The patient lives alone in the city and is a smoker. He is otherwise in stable condition, with the main concern being his limited mobility due to the left hip pain. He is preparing for hip replacement surgery, which is expected to significantly improve his quality of life.

Case 3

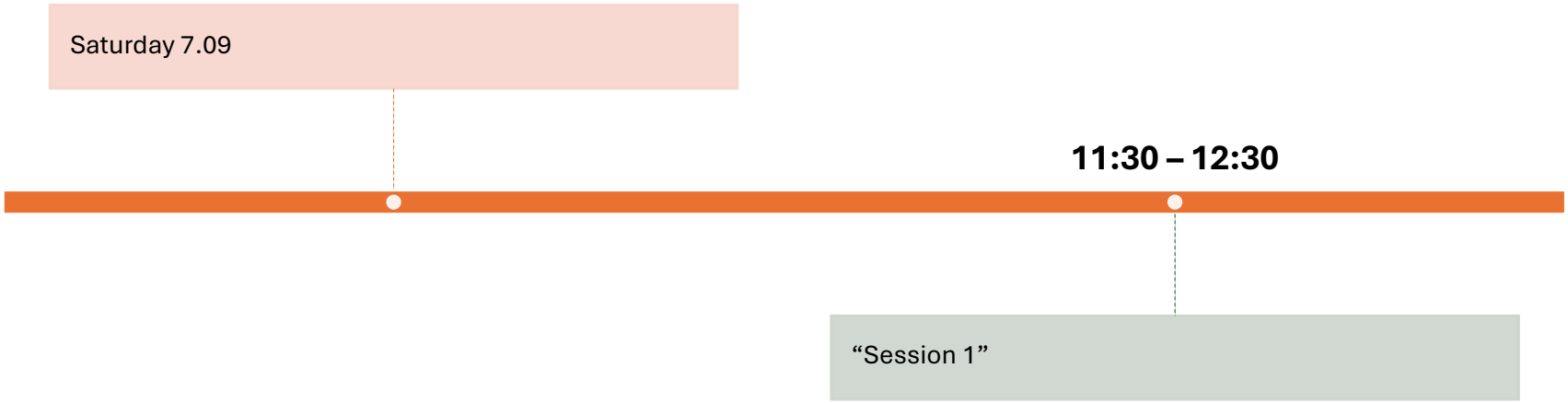
- Patient: Female, 78 years old
- History: The patient is a 78-year-old woman living alone on a rural homestead where she manages both household chores and farm work. She has been living alone since her husband passed away a few years ago. About six months ago, she began experiencing pain in her left leg. Her adult children convinced her to visit a doctor, where an X-ray was performed, leading to a diagnosis of osteoarthritis in the left hip joint.
- Current Condition: The patient has been diagnosed with osteoarthritis in the left hip. Despite the offer from her children to cover the cost, she refuses to undergo surgery if it requires payment. The cost of hip replacement surgery in private clinics exceeds 2,500 euros. She has decided to wait for a state-funded operation, which will take 76 weeks, or a year and a half. In the meantime, she uses pain medication only when the pain becomes unbearable.
- Additional Information: Living alone in a rural area, the patient continues to perform both household and farm duties, despite the pain. Her decision to wait for the state-funded surgery indicates her determination to manage on her own, even though her children are willing to assist financially. Her reliance on pain medication is minimal, and she only takes it when absolutely necessary.

Case 4

- Patient:Female, 62 years old
- Diagnosis: Right knee pain with stiffness and intermittent relief. The right knee joint has varus deformity and exhibits crepitus with a limited range of motion (ROM); strength of 5/5. The right knee has no erythema or warmth but a mild effusion. The right hip strength is 5/5 and elicits no pain on palpation or movement.
- History: The patient is a pleasant 62-year-old woman who presents with persistent pain in her right knee. She describes experiencing stiffness in the right knee for about 30 minutes each morning, which resolves with activity. The pain in her knee worsens with movement throughout the day and is only partially relieved by rest. Recently, bearing weight on the right knee has become significantly more painful, with the pain intensity reaching 7/10 in the mornings and evenings, compared to 4/10 previously. This pain has progressively worsened over the past 24 months.
- Additional Symptoms: The patient has also reported pain in her hands and wrists for the past 2 or more years, which is not the primary concern at this visit. She does not have a history of crystal-induced arthritis (such as gout or pseudogout) or Lyme disease.
- Medications: Self-treats musculoskeletal pain with ibuprofen intermittently. Manages hypertension with cardiologist prescribed medications.
- Family History: Mother with seropositive rheumatoid arthritis (RA); Father with hypertension.
- Current Condition: The patient has not changed her diet or experienced significant weight fluctuations over the past 5 years. She reports stable weight and has not noted any recent changes in her overall health.
- Review of Systems: The patient does not report any additional symptoms such as night sweats, recent fevers, cough, headache, skin changes, redness of face or extremities, or other issues beyond back, hand, and knee pain.

Case 5

- Patient: Female, 87 years old
- Diagnosis: Osteoarthritis hip replacement endoprosthesis in 2022
- Patient History and Current Condition: The patient is a 87-year-old woman with osteoarthritis, had the surgery in 2022 – left hip. She experiences significant pain in the left hip, which severely limits her ability to walk and perform daily activities. During the summer she walks since she lives in the countryside – using one or two crutches. Despite the pain, she does not currently use painkillers or uses them very rarely when the pain is not possible to tolerate. The left femur was broken in a fall and fixed with a rod but was rejected, didn't heal and was causing a lot of pain, after that there were 2 procedures at the same time – hip replacement and the rod removal.
- She has also right knee prosthesis, surgery performed in 2018, the knee is not causing any problems in movement.
- Partially blocked blood vessels to the head – resulting in headaches and dizziness.
- High blood pressure 150/90 – she is taking drugs, but they don't help. Use to have low blood pressure.
- Severe COVID at the end of 2023, with severe loss of microelements in the cell level.
- Gall bladder surgery in 2023.
- Stroke ACM sin in 2022 – she had to re-learn writing and calculating but was able to speak, recovered successfully and is fully functioning at the moment with some signs of slight memory loss.
- Has shunts in the left leg (surgery in 2022), needs a surgery in the right leg but the doctor doesn't allow due to her medical condition. Will be allowed to have the surgery if the pain becomes too bad.
- Sclerosis in lumbar spine.
- Occasional numbness in feet, with no clear diagnosis (blocked bl.vessels/spinal or other cause)
- Numbness in the left arm due to nerve compression in C spine.


Saturday 7.09
11:30 – 12:30
“Session 1”

Content Outline and Learning Outcomes

- Content Outline
  - Session 0 of an Evidence-Based Program (WWE)
- Objectives
  - Learners will experience a WWE session as it might be presented to a community group or patient group.

The Arthritis Foundation's
Walk With Ease
Program

Your guide to walking for better health, improved fitness and less pain

What is the **Walk With Ease** Program?

- 6-week structured program for adults with arthritis that includes walking at least 3x/week
- Offers you a choice of doing the program on your own in a self-guided format or participating in an instructor-led, group class
- Everyone receives the *Walk With Ease* Workbook
- You learn about proper stretching and strengthening exercises, motivational strategies, health education for symptom management, as well as how to build stamina and walking pace.

Arthritis Foundation®

How Could **Walk With Ease** Help Me?

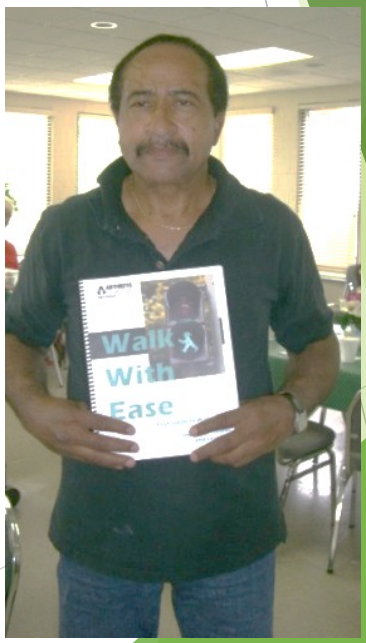
- Understand the basics of arthritis and its relationship with exercise and pain
- Learn how to exercise safely and comfortably
- Learn and use methods to make walking fun
- Develop and implement a personal walking plan with realistic goals for improved fitness
- Gather tips, strategies and resources to help you stick with an exercise routine over the long term

Arthritis Foundation®

How could **Walk With Ease** help me?

Walk With Ease is an evidence-based program that helps participants:

- improve arthritis symptoms (pain, stiffness)
- increase arthritis self-management
- increase balance, strength, and walking pace



Callahan, L., Shreffler, J., Altpeter, M., Schoster, B., Hootman, J., Houenou, L., Martin, K., & Schwartz, T. (2011). Evaluation of Group and Self-Directed Formats of the Arthritis Foundation¹s (AF) Walk with Ease (WWE) Program, *Arthritis Care & Research, 63*(8): 1098–1107. DOI: 10.1002/acr.20490.

Is Walk With Ease for me?

Designed mainly for

- Adults with arthritis who are inactive
- Adults with arthritis who want to maintain an active lifestyle
  - But you must be able to be on your feet for 10 minutes without increased pain

Others who might want to join:

- Those without arthritis who want to start and/or maintain an active lifestyle

Choose How You Would Like to Walk!

Learn to walk safely and comfortably

① Self Guided

② Instructor-led Group

Arthritis Foundation®

Choose How You Would Like to Walk: Self-Guided Format

- Self-paced, 6-week program
- Read a chapter a week in the Workbook
- You are encouraged to build up to walking at least **30** minutes or more on **5** or more days
- Can use the Workbook or the WWE Mobile App to record and report progress

Arthritis Foundation®

Choose How You Would Like To Walk: Group

- 60-minute sessions, three times per week for six weeks
- Small class sizes of 12-15 help encourage participation and interaction
- A trained leader:
  - Provides short “lecturettes” based on Workbook content
  - Facilitates discussions
  - Leads walking and exercises
- Participants are asked to read 1 chapter/week in the Workbook

Arthritis Foundation®

What's in the **Walk With Ease** Workbook?

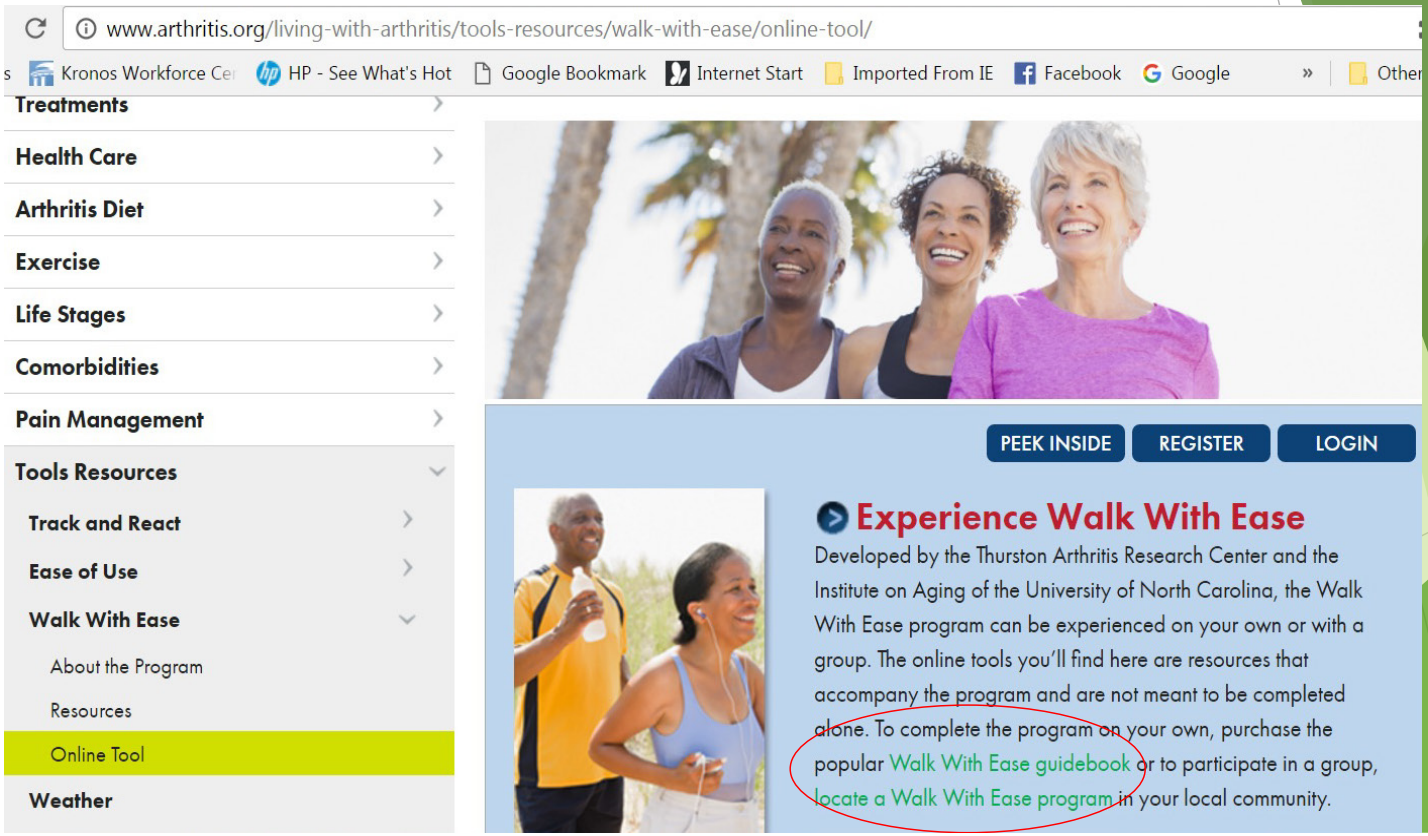
- Information about arthritis, symptom management and exercise
- Walking instructions
- Exercises
- Motivational tools, strategies, and resources

Arthritis Foundation®

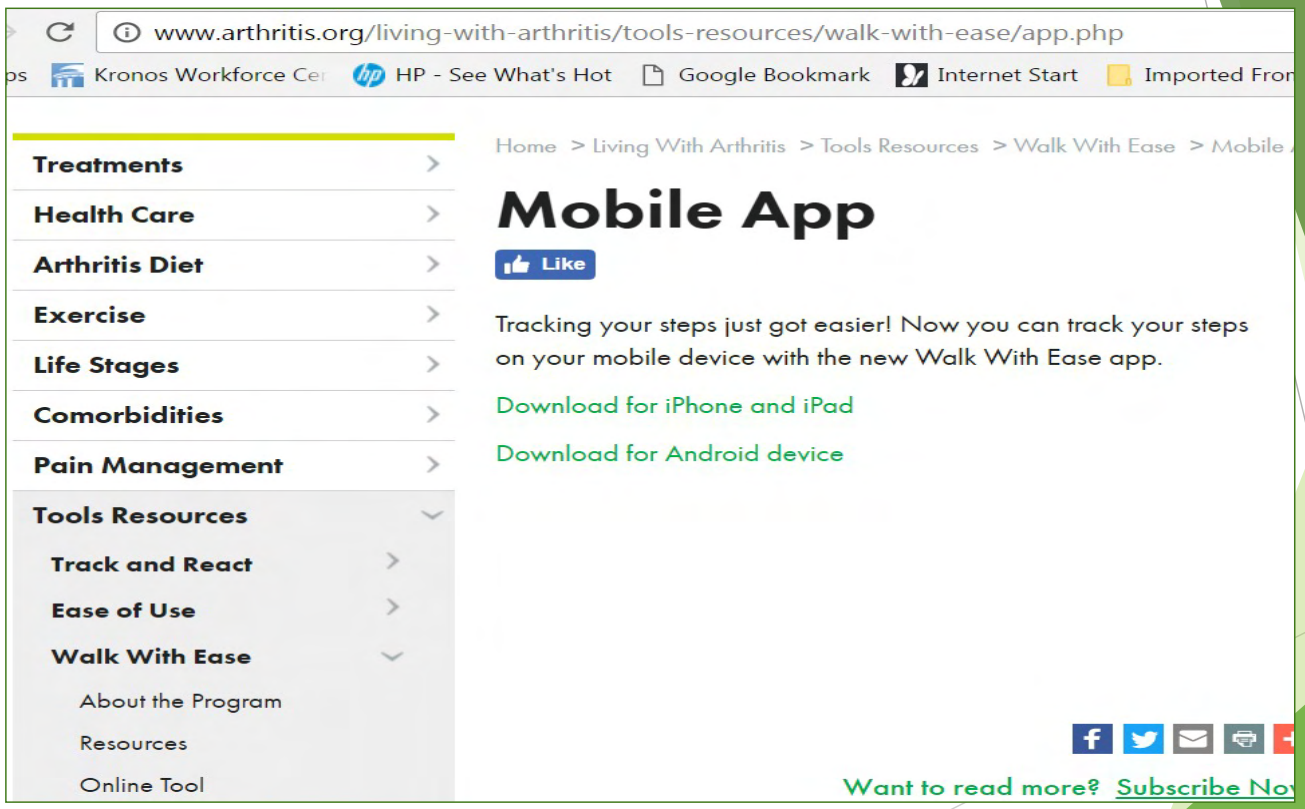
Tools in the Workbook and Online

Arthritis Foundation®

Walk With Ease Tools Available Online



Walk With Ease App



Arthritis Foundation®

What Participants are saying about **Walk With Ease?**

"Feeling better and building friendships are two of the main program incentives of Walk With Ease."

"It gave me a lift for the day – not only physically, but in my mood, too."

"I'm so glad I started walking. I find it to be good for everything. It lowers my blood pressure, my back is better and my glucose level is better. It simply improves everything."

Arthritis Foundation®

WALK!

What happens next?

- 6 weeks of sessions that take place 3x/week
- Each session has a syllabus, objectives and a script
- Each session has leader handouts and participant “homework”
- Session basics
  - Pre-walk discussion about related topics on arthritis, exercise, walking as well as motivational strategies
  - Warm-up exercises
  - Walk of 10-30 minutes
  - Cool-down
  - Closing remarks

Typical Session Format

ORDER OF SESSION ACTIVITY	ACTIVITY DURATION
Pre-class Socializing and Attendance	10 minutes
Welcome, Announcements	2 to 5 minutes
Discussion Topic	5 to 10 minutes
Walking Warm-up	3 to 5 minutes
Warm-up Stretches	4 to 5 minutes
"FITT" Walk Duration	5 to 30 minutes*
Walking Cool-down	3 to 5 minutes
Cool-down Stretches	7 to 9 minutes
Closing	5 minutes
After-class Socializing	10 minutes
TOTAL	Approx 50–95 minutes

*Note: if you and the group have the capacity and the time, you may wish to walk for more than 30 minutes

You tell me

Could something like this be part of physiotherapy in Latvia?

What needs to change in the program to meet cultural needs?

What resources would you need to start a program?

How can I help you?

Thank you

Julia Chevan

jchevan@springfieldcollege.edu