

## Programma Minisymposium

16.15 – 16.30 *Inloop*

16.30 – 16.50 *Onderzoek*

- Fysieke activiteit & kwaliteit van leven (Ingrid Kouwijzer)
- Relatie 6 minuten 'push' test & fitheid (Sonja de Groot)

16.50 – 17.20 *Kennisdelen uit de praktijk*

- Afstellen handbikes (Paul ter Horst)

17.20– 17.30 *Pauze*

17.30 - 18.15 *Documentaire 'Alles wat boven komt'*

18.15 - 18.45 *Avondeten*

### Contactpersonen-bijeenkomst

18.45 – 19.15 *Informatie HBB 2025 en afsluiting (HBB-organisatie)*



**HandbikeBattle**

**Je kunt vandaag een afspraak maken  
voor de classificatie van je  
teamdeelnemers**



# Onderzoek: publicaties



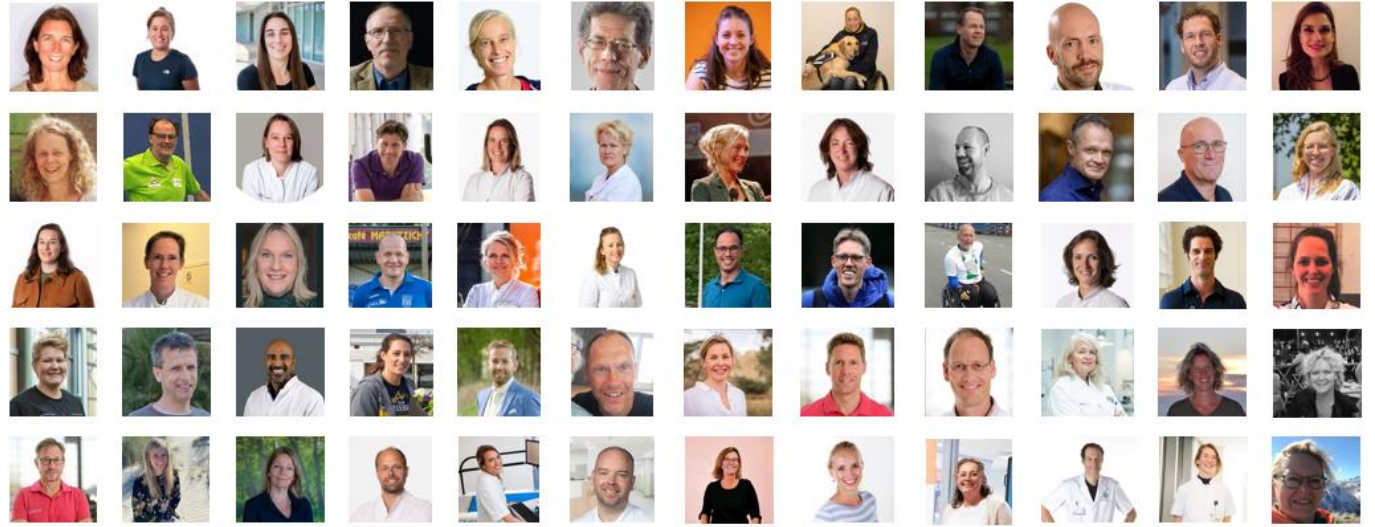
- DeShazo JM, Kouwijzer I, de Groot S, Post MWM, Valent LJM, van Leeuwen CMC, Wen H, Cowan RE, On Behalf Of The HandbikeBattle Group. *Effect of Training for an Athletic Challenge on Illness Cognition in Individuals with Chronic Disability: A Prospective Cohort Study*. Int J Environ Res Public Health. 2023 Dec 30;21(1):58.
- De Groot S, Kouwijzer I, Valent L, van der Woude L; HandbikeBattle group. *Handbike configurations and the prevalence of experienced sitting and riding-related problems in recreational handcyclists training for the HandbikeBattle*. Disabil Rehabil Assist Technol. 2024 Nov;19(8):3172-3182.
- Snoek T, Haarler A, van Orsouw L, Janssen TWJ, de Groot S, Kouwijzer I. *Sitting pressure during wheelchair propulsion and handcycling: effects of backrest angle, movement intensity and cushion type*. Disabil Rehabil Assist Technol. 2024 Nov 29:1-10.
- Kouwijzer I, Groot FP, Gobets DF, de Groot S. *Cardio-Pulmonary Exercise Test bij mensen met een dwarslaesie: do's and don'ts*. Sportgezondheidszorg 2024 accepted.

# Outreach in Society Award

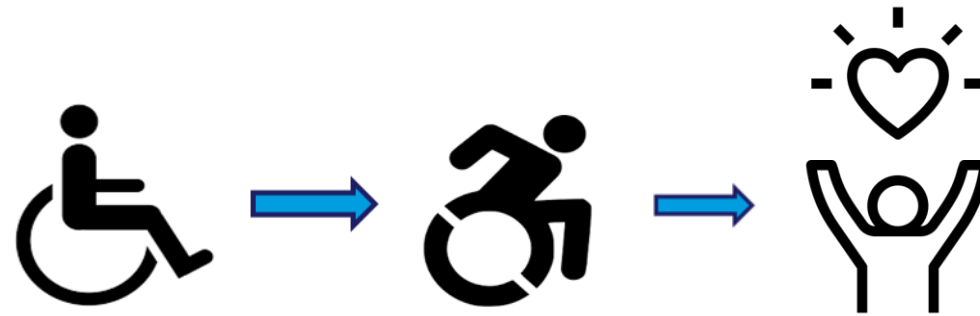
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## HandbikeBattle study



# Fysieke activiteit & kwaliteit van leven



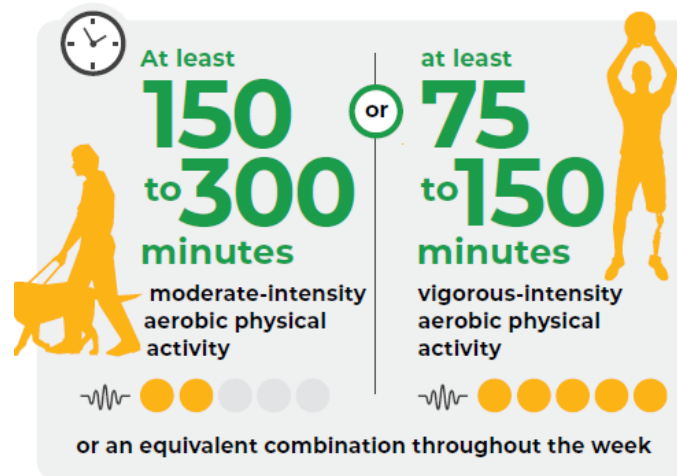
Ingrid Kouwijzer  
Christel van Leeuwen  
Linda Valent  
Karin Postma  
Lucas van der Woude  
Sonja de Groot

# WHO 2020 GUIDELINE ON PHYSICAL ACTIVITY



› All adults living with disability should undertake regular physical activity.

*Strong recommendation, moderate certainty evidence*



› Adults living with disability should do at least 150–300 minutes of moderate-intensity aerobic physical activity; or at least 75–150 minutes of vigorous-intensity aerobic physical activity; or an equivalent combination of moderate- and vigorous-intensity activity throughout the week for substantial health benefits.

*Strong recommendation, moderate certainty evidence*

› Adults living with disability should also do muscle-strengthening activities at moderate or greater intensity that involve all major muscle groups on 2 or more days a week, as these provide additional health benefits.

*Strong recommendation, moderate certainty evidence*



Frequency and bout duration is not taken into account

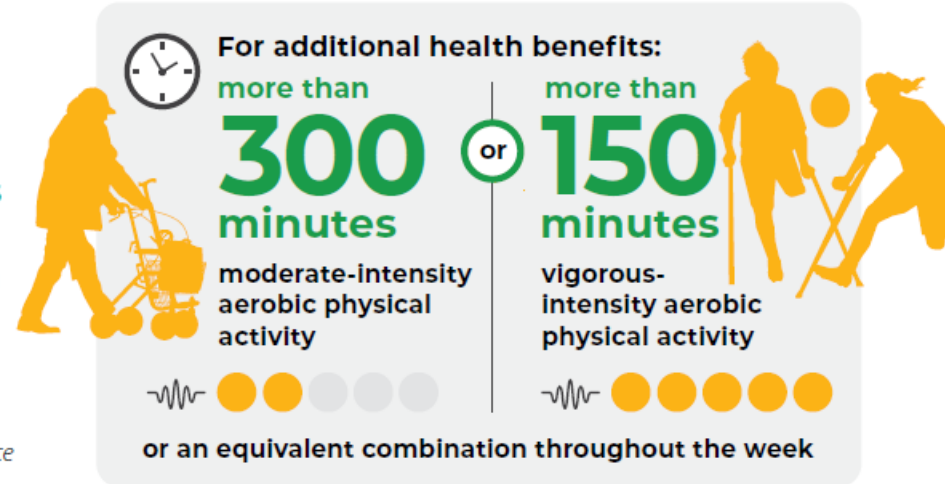
“Additional benefits of physical activity to health outcomes for those living with spinal cord injury include the following: improved walking function, muscular strength, upper extremity function (moderate certainty), and enhanced health-related QoL (low certainty)”.

# WHO 2020 GUIDELINE ON PHYSICAL ACTIVITY



› Adults living with disability may increase moderate-intensity aerobic physical activity to more than 300 minutes; or do more than 150 minutes of vigorous-intensity aerobic physical activity; or an equivalent combination of moderate- and vigorous-intensity activity throughout the week for additional health benefits.

*Conditional recommendation, moderate certainty evidence*

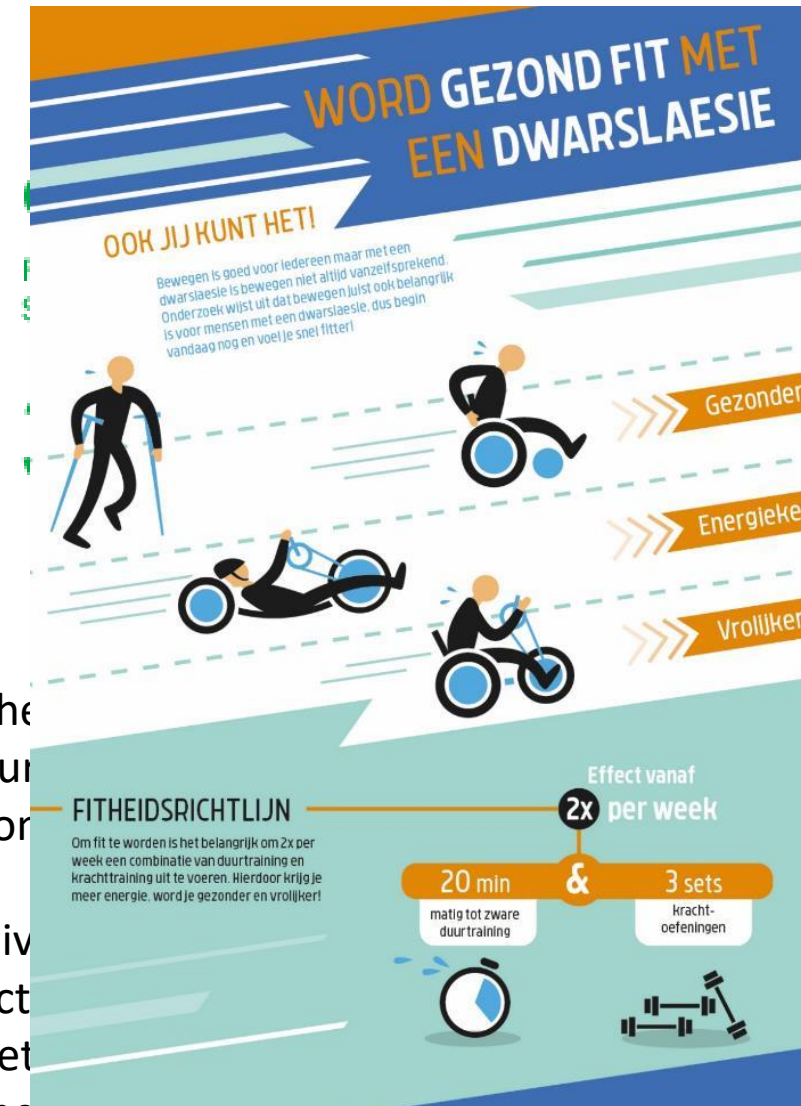


## GOOD PRACTICE STATEMENTS

- Doing some physical activity is better than doing none.
- If adults living with disability are not meeting these recommendations, doing some physical activity will bring benefits to health.
- Adults living with disability should start by doing small amounts of physical activity, and gradually increase the frequency, intensity and duration over time.
- There are no major risks to adults living with disability engaging in physical activity when it is appropriate to the individual's current activity level, health status and physical function; and when the health benefits accrued outweigh the risks.
- Adults living with disability may need to consult a health-care professional or other physical activity and disability specialist to help determine the type and amount of activity appropriate for them.

“The evidence for those with disability was considered together with the evidence for those without disability and the resulting recommendations were extrapolated to be applicable to people with disability in general”.

# EXERCISE GUIDELINES FOR ADULTS WITH SPINAL CORD INJURY



The duration of the study was 12 weeks.

Given the active role of the participant in the study, the minimum dose of exercise required to achieve benefits.

frequency and bout duration of physical activity is reflected in the guidelines of Ginis et al.

the least physically active group. The guidelines of Ginis et al. reflect the minimum dose of exercise required to achieve benefits.

# **EXERCISE, MEETING THE GUIDELINES AND ASSOCIATIONS WITH QUALITY OF LIFE IN PEOPLE WITH SPINAL CORD INJURY**

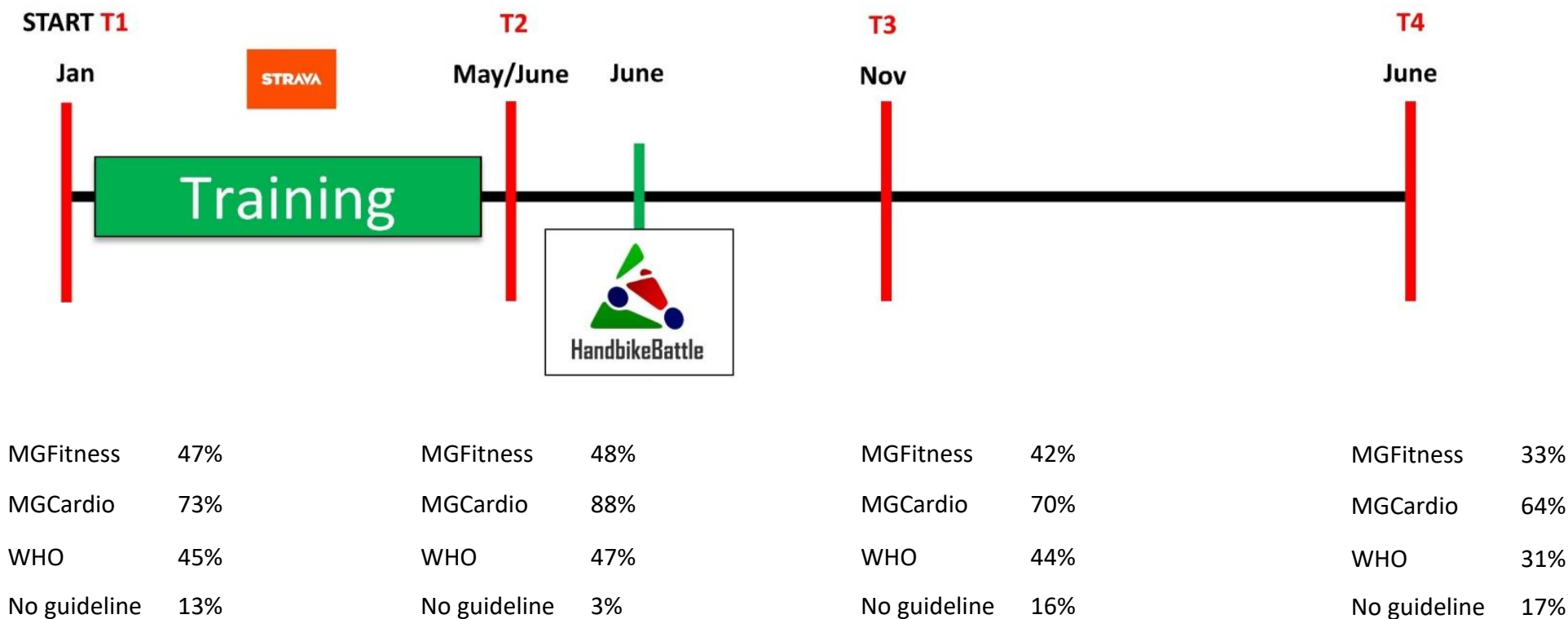
- Voldoen de HandbikeBattle deelnemers aan deze richtlijnen?
- Is er een associatie tussen voldoen aan de richtlijnen en kwaliteit van leven?

# HandbikeBattle - PASIPD

- Longitudinal study
- Inclusion in 2017 – 2018 – 2019
- 12 Dutch rehabilitation centers
- N = 80 persons with SCI (72) or spina bifida (8)
- M/F: 70/30%
- Age:  $43 \pm 14$  years
- TSI:  $9 \pm 11$  years
- Paraplegia: 67% (+10% spina bifida)
- Motor complete: 55%



# Voldoen aan de richtlijn – over de tijd (descriptief)

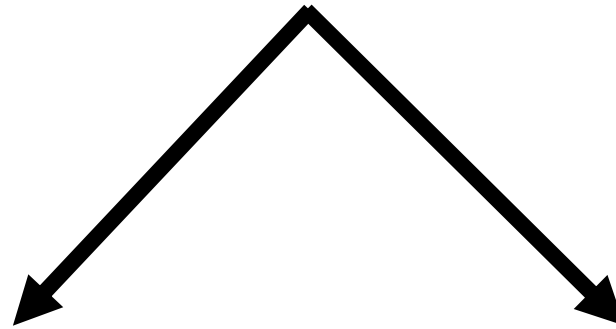


# Associatie met kwaliteit van leven



Voldoet aan GEEN  
enkele richtlijn

|                    |      |
|--------------------|------|
| Welbevinden        | 7.9  |
| Mentale gezondheid | 73.7 |



Voldoet aan minimaal  
één richtlijn



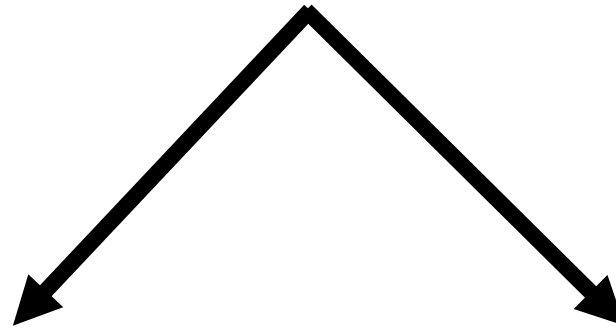
|                    |      |
|--------------------|------|
| Welbevinden        | 8.3  |
| Mentale gezondheid | 78.1 |

# Associatie met kwaliteit van leven



Voldoet NIET aan WHO

|                    |      |
|--------------------|------|
| Welbevinden        | 8.6  |
| Mentale gezondheid | 74.6 |

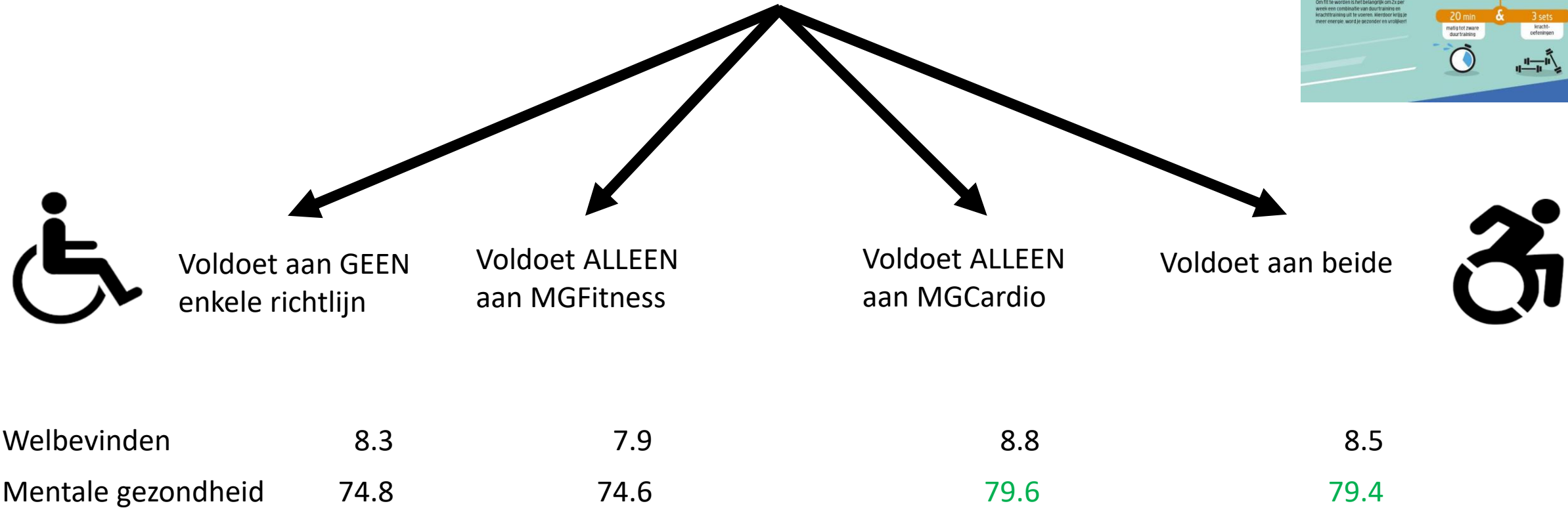
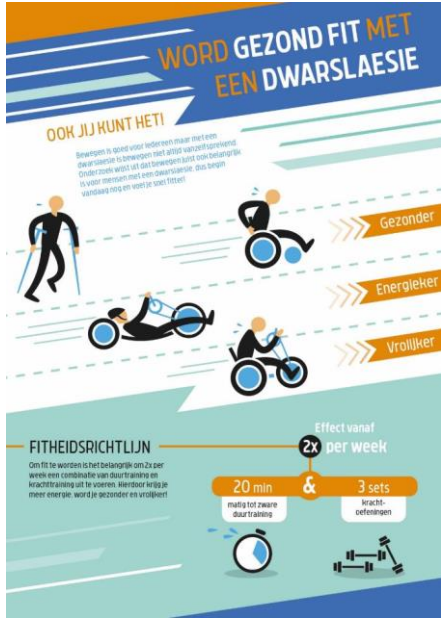


Voldoet WEL aan WHO



|                    |      |
|--------------------|------|
| Welbevinden        | 8.3  |
| Mentale gezondheid | 74.3 |

# Associatie met kwaliteit van leven



- 
- **Voldoen de HandbikeBattle deelnemers aan deze richtlijnen?**
    - Ja
    - Vooral op T2, daarna zien we een daling
    - We zien een stijging in MGCardio richtlijn
    - Krachttraining blijft achter
  - **Is er een associatie tussen voldoen aan de richtlijnen en kwaliteit van leven?**
    - Ja, met name tussen MGCardio en mentale gezondheid