TWO YEAR EFFECT OF AN EXERCISE INTERVENTION ON MAXIMAL STEP-UP HEIGHT IN FEMALE PRIMARY CARE PATIENTS

L.A. Nyberg¹,², C J. Sundberg³, P. Wändell¹, J. Kowalski⁴, and M-L. Hellénius⁵
¹Centre for Family Medicine, Department of Neurobiology, Care Sciences and Society, Karolinska Institutet, Stockholm, Sweden. ²Karolina Primary Health Care Center, Karlskoga, Örebro County Council, Sweden. ³Department of Physiology & Pharmacology, Karolinska Institutet, Stockholm, Sweden. ⁴Department of Clinical Science, Intervention and Technology, Karolinska Institutet, Stockholm, Sweden. ⁵Department of Medicine, Karolinska Institutet, Stockholm, Sweden. Corresponding author: Lillemor Nyberg, E-mail: lillemor.nyberg@gmail.com

Objectives
To examine changes in leg strength and function over two years after an exercise intervention by assessing maximal step-up height (MSH) and the relations to self-reported exercise, changes in maximal oxygen uptake (VO₂-max), anthropometric measurements and self-reported physical function (SF-36).

Methods
Female primary care patients (n = 101), mean (range) age at baseline 52 (26-83) years, were recruited from a physical activity intervention programme lasting for 3 months. Uni- and multivariate regression analyses of changes from baseline to 14-30 months follow-up of MSH, age, exercise, VO₂-max, anthropometric measurements and physical function were performed.

Results
The patients with the best maintenance of MSH reported more combined strength and aerobic fitness training with higher intensity compared to the patients with the greatest reduction in MSH. For total group other health indicators such as VO₂-max, waist circumference and physical function were significantly improved, while weight and BMI did not change significantly.

Conclusions
The decline in maximal step-up height with ageing was less pronounced when the individual reported exercise with higher intensity, including strength training, whereas only brisk walking was not enough.