

Are Pregnant Women Meeting the National Physical Activity Recommendations at their Booking Appointment?

AJ Ridout¹, R Smith¹, S Scanlan¹, H Reid¹, C Lee¹, L Mackillop²

1. Department of Sport & Exercise Medicine, Nuffield Orthopaedic Centre, Oxford University Hospitals NHS Foundation Trust, Oxford

2. Women's Centre, Oxford University Hospitals NHS Foundation Trust, Oxford



Background

National recommendations advise that pregnant women should perform an aerobic component of at least **150 minutes per week** of physical activity (PA), and the **benefits** of activity in pregnancy are well recognised. Despite this, many women do not meet the recommended guidance, and activity levels **decline** during pregnancy. Physical activity is rarely discussed and recorded at the **booking appointment**.

Pregnancy is a **teachable moment**, where women report increased **motivation for behaviour change**. They also have access to a number of healthcare contacts. This can provide the opportunity for **discussion** about increasing their activity levels and **reinforcement** of self-efficacy to maintain this change.

Objective

This evaluated physical activity levels at 10-12 weeks of pregnancy, measured with the **Exercise Vital Sign (EVS)**¹, which is a validated and quick to use physical activity reporting tool.

Figure 1: The modified EVS incorporated into the electronic record system

Method

In April 2018, a modified version of the **Exercise Vital Sign** was designed & implemented into the electronic record system used at the booking appointment, to identify women not meeting the **aerobic component** of the recommendations, and assist with activity promotion.

Physical activity levels were self-reported, recorded by midwives and coded into three categories – **green** (>150 minutes/week), **amber** (30-150 minutes/week) & **red** (<30 minutes/week). A very brief **advice intervention** was given to women depending on their activity levels. Body mass index (BMI) was compared with activity levels using Pearson's chi-squared test.

Results

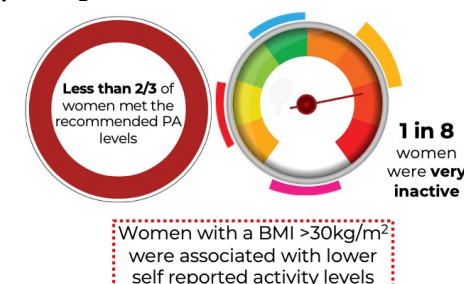
32,570 women were assessed (April 2018-January 2022). Mean age was **31.2y** (14-55y), mean booking weight **75.5kg** (21-187.9kg) & mean BMI **26.5kg/m²** (12.4-66.3 kg/m²).



A **significant association** was found between **BMI & lowest activity category**. 953 women (**14.5%**) with BMI >30kg/m² were in the lowest PA category, compared to 2993 (**11.5%**) with BMI <30kg/m² (**p<0.05**).

These results are **highly comparable** to an initial analysis (April-December 2018, n=6,356) – **59.1%** (3757) green, **28.1%** (1785) amber & **12.8%** (814) red.

Key Messages



Conclusion

This tool has been successfully introduced into **routine maternity care** and has proven to be **acceptable, sustainable & scalable**. It demonstrates that less than two-thirds of women met the recommended physical activity levels.

Greater understanding of the **demographics** relating to activity levels in pregnancy will allow advice to be **targeted** to the most high-risk groups for inactivity. Successfully empowering women towards sustainable **behaviour change & self-efficacy** will have an impact on their current pregnancy and postpartum health, but also potential future pregnancies and their overall health & wellbeing.

Future work will address the **effectiveness & impact** of this intervention.

Reference: 1. Coleman KJ, Ngor E, Reynolds K, Quinn VP, Koenig C, Young DR, et al. Initial validation of an exercise "vital sign" in electronic medical records. Med Sci Sports Exerc 2012; 44(11):2071-6.