

Cardiometabolic, lifestyle, and psycho-behavioral characteristics of participants in the CV-PREVITAL study: a large multicenter randomized trial assessing an mHealth intervention for primary cardiovascular prevention

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BACKGROUND

- CVD remains the leading cause of morbidity and mortality worldwide
- Primary prevention of CVD is still under-implemented, highlighting the need for scalable and accessible strategies

OBJECTIVE

- To describe the baseline cardiometabolic, lifestyle and psycho-behavioral profile of CV-PREVITAL participants

Fig. 1: MODIFIABLE RISK FACTORS AT BASELINE

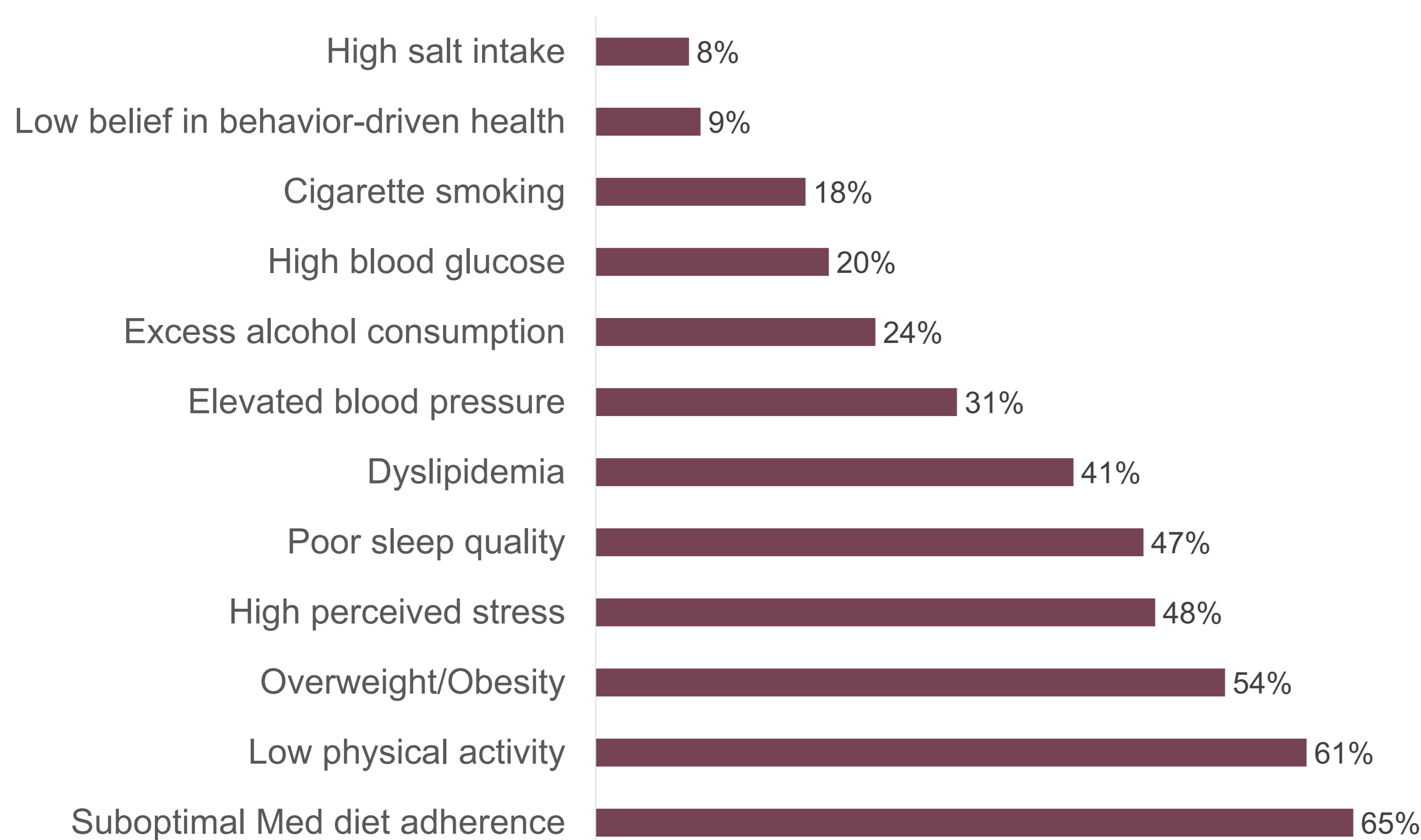
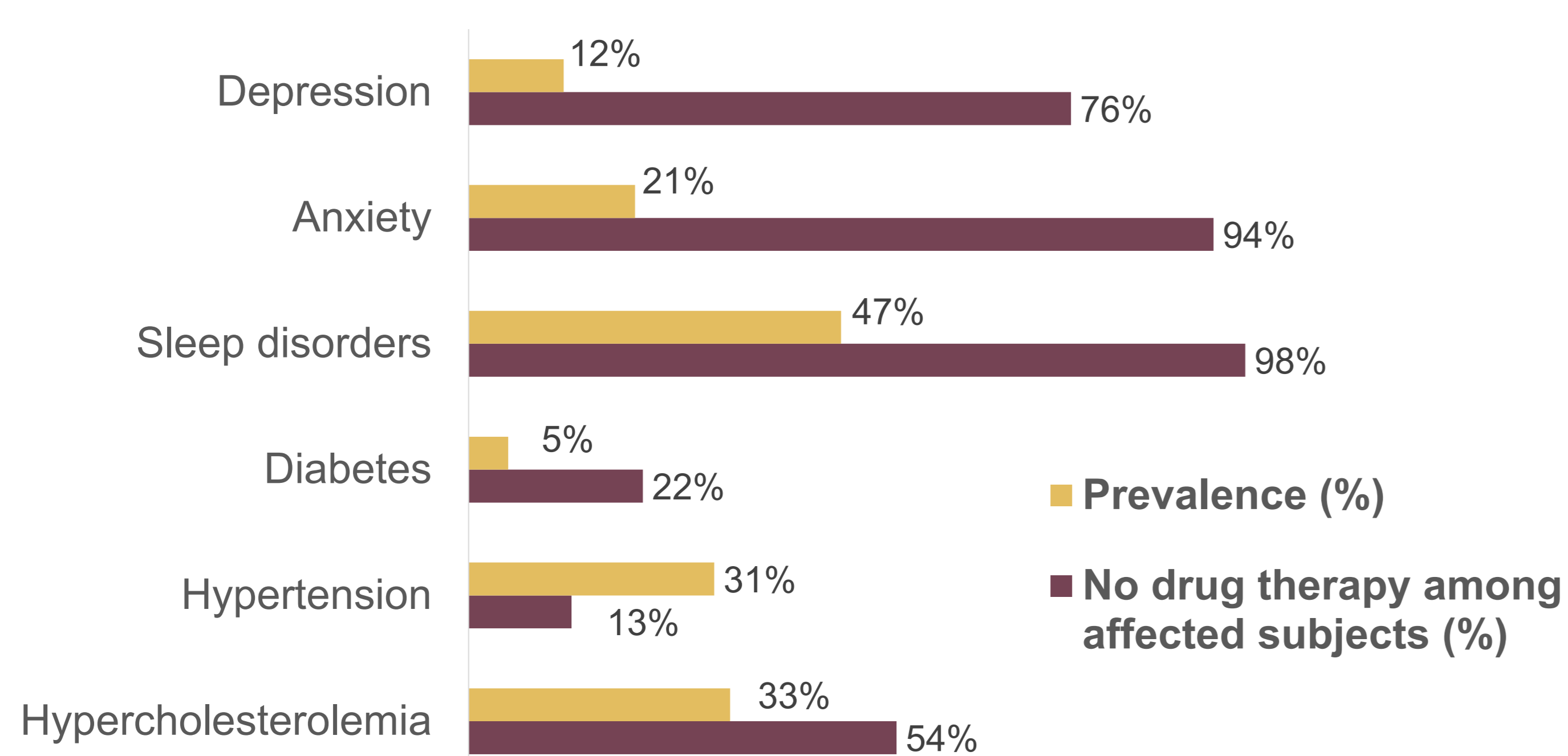


Fig. 3: UNDIAGNOSED OR UNTREATED RISK FACTORS



KEY RESULTS

- High prevalence of modifiable risk factors**, especially unhealthy dietary patterns, low physical activity, overweight/obesity, stress and poor sleep quality
- Men:** greater cardiometabolic/lifestyle burden; **women:** greater psychosocial/sleep-related burden
- Common undiagnosed/untreated risk**, particularly hypercholesterolemia, sleep disorders, anxiety and depression
- Early favorable changes after baseline screening** in risk score, blood pressure, lipid profile, diet adherence and smoking

METHODS

CV-PREVITAL is a large multicentre RCT evaluating an mHealth intervention for primary CVD prevention

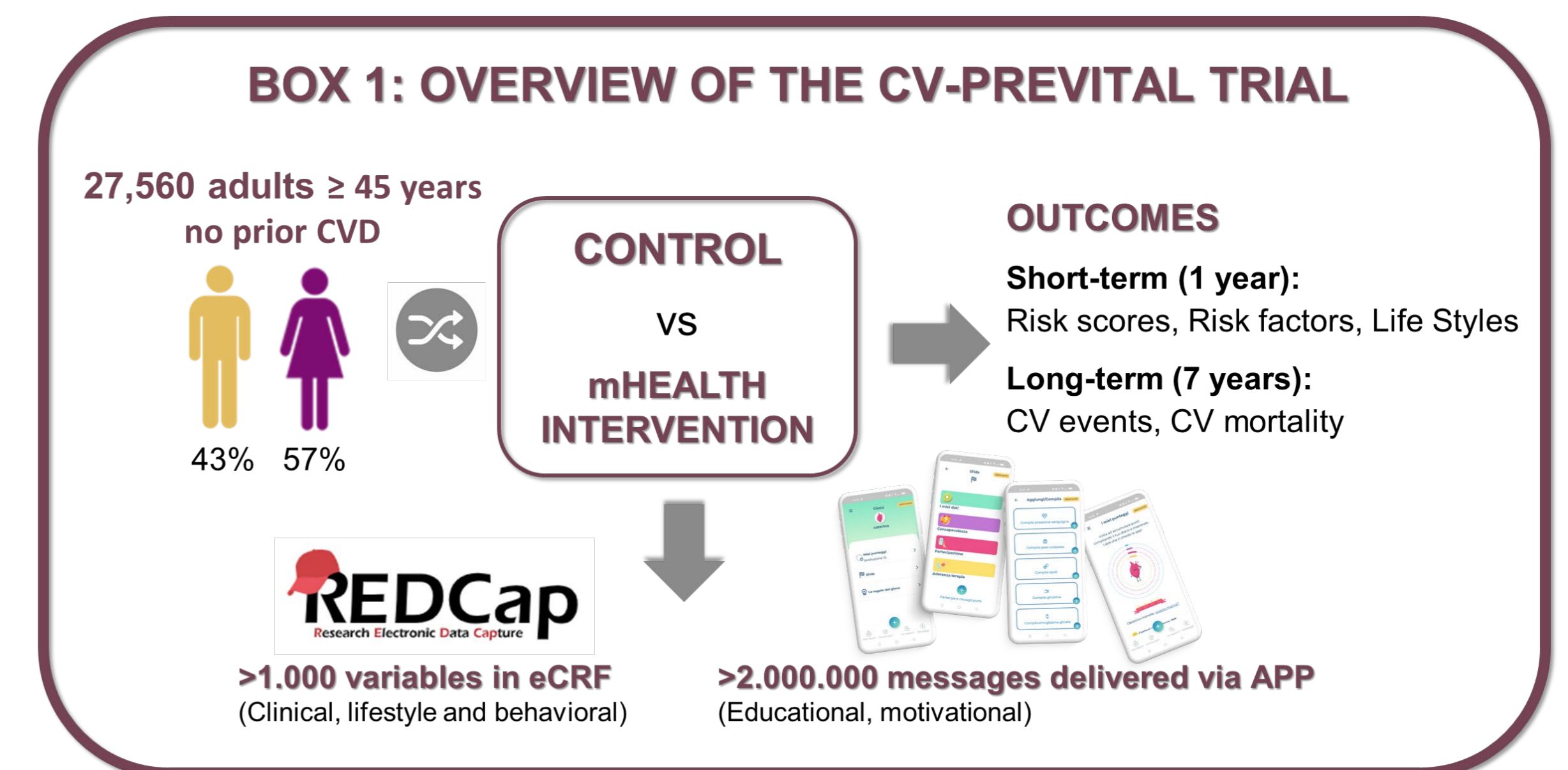
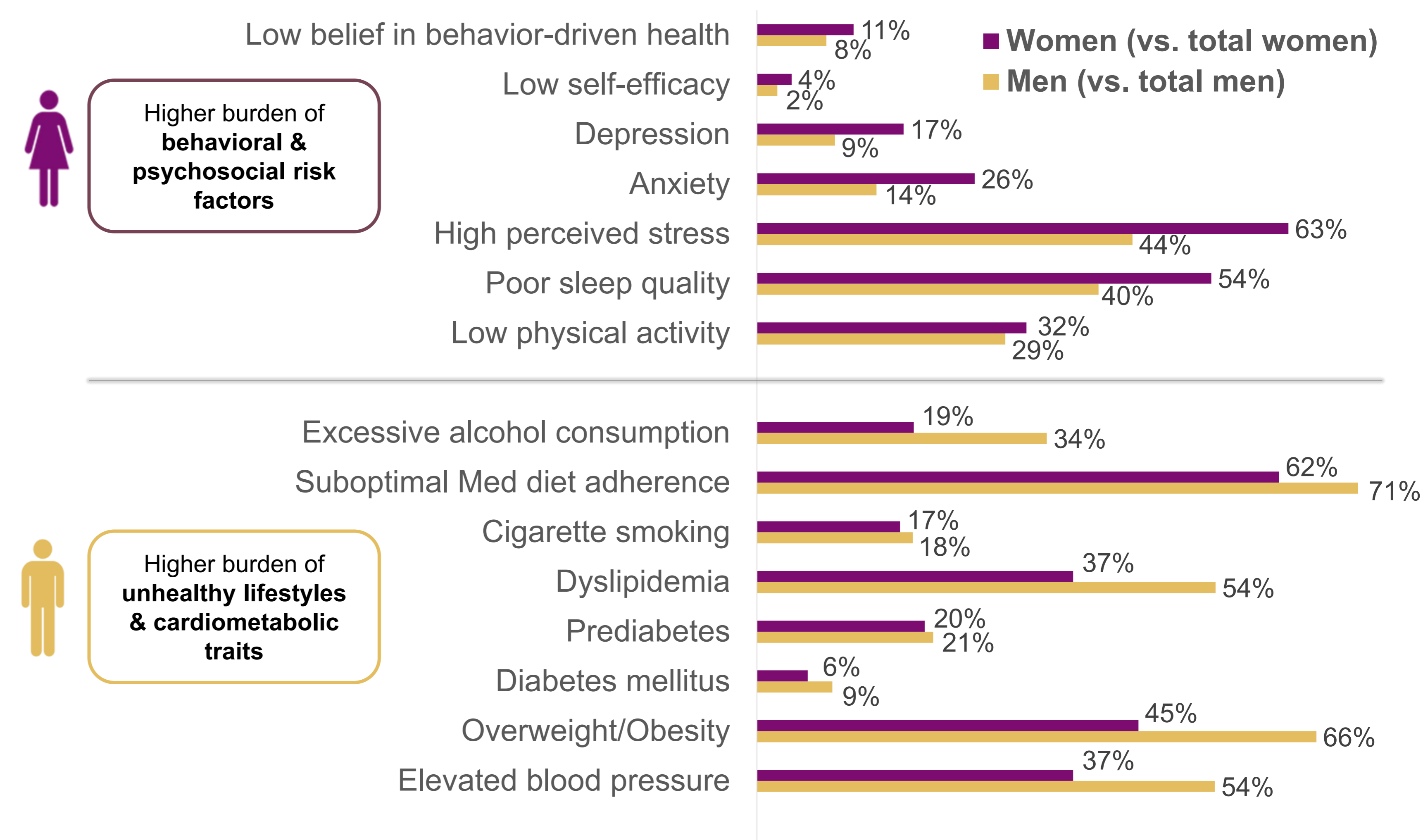


Fig. 2: SEX-SPECIFIC PATTERNS IN BASELINE RISK PROFILE



BOX 2: EARLY BENEFITS OF BASELINE SCREENING

Participation in screening was associated with early improvements in:

- ↓ Molisani risk score (-0.30)
- ↓ Blood pressure (-1.20 mmHg)
- ↓ LDL-C (-2.21 mg/dl)
- ↑ HDL-C (+0.66 mg/dl)
- ↑ Med diet adherence score (+0.44)
- ↓ Cigarettes per day (-0.19)

CONCLUSIONS

- Modifiable, hidden and undertreated CVD risk is common even in apparently healthy individuals
- Risk profiles differed between men and women, supporting personalized prevention strategies
- Screening may promote early risk improvement by increasing risk awareness



PROACTIVE, SCALABLE AND SEX-INFORMED STRATEGIES ARE NEEDED TO IMPROVE PRIMARY CVD PREVENTION