Barriers to recruitment included certain times of year, like public holidays. We employed the National Adult Literacy Agency to improve readability of participant documents but later, to comply with GDPR guidelines, we lengthened our Participant Information Leaflet, which some women found off-putting. The trial was co-ordinated at a prestigious university and some eligible women expressed concern that they might be judged by researchers. In response, advertising through the university's website was discontinued.

Several strategies were successful. LAG members applied in-depth knowledge of local communities to target recruitment to eligible women. Advertising via social media helped recruit younger women. Using a centrally-located, well-known building within each district, with good transport links, improved attendance at consent meetings, particularly important for those with mobility issues. Recruitment occurred over four waves, allowing the application of iterative learning.

Conclusion Recruitment strategies in the WCQ2 trial had variable success. Community-based trials have specific challenges such as the availability and suitability of local resources and the regulatory environment. The early and active engagement of local stakeholder groups with in-depth knowledge of communities is important, as well as the application of iterative learning.

P43 | **DEVELOPMENT OF A CARDIOVASCULAR DISEASE RISK PREDICTION MODEL FOR POPULATION HEALTH PLANNING IN JAPAN: EPOCH-JAPAN STUDY**

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Background Cardiovascular disease (CVD) risk prediction models are primarily used in clinical settings, but may also have potential applications in population health. For example, these models can be used to estimate 10-year CVD mortality within a region. In order to expand the applications of such models, we developed a CVD risk prediction model for population health planning that can account for temporal changes in mortality.

Methods The Evidence for Cardiovascular Prevention from Observational Cohorts in Japan (EPOCH-JAPAN) study is an individual participant data meta-analysis of cardiovascular epidemiology in the Japanese population. This project comprises 15 cohort studies involving 147,465 Japanese people, with a total of 5,543 CVD deaths. Before constructing the CVD risk prediction model for the population, we grouped these cohort studies into three categories according to their year of cohort initiation (1990–1994, 1995–1999, and 2000 or later), and used two groups for model construction (Group 1: 1990–1994; Group 2: 1995–1999). First, we constructed a group-specific CVD risk prediction model based on a Cox model that included age (year), systolic blood pressure (SBP; mmHg), total cholesterol (TC; mg/dl), diabetes (DM), smoking status, and study cohort as independent variables. Next, we checked the homogeneity of the model parameters using hazard ratios, and developed a common parameter using weighted mean values. Finally, to eliminate the temporal discrepancies between the model results and contemporary mortality (as of 2015), we calculated calibrating factors using government vital statistics of Japan.

Results Among the 15 cohort studies included in EPOCH-JAPAN, seven were categorized into Group 1 and three were categorized into Group 2. For CVD in men, the results showed similar hazard ratios for age (1.12), SBP (1.01), and TC (1.00); furthermore, the hazard ratios were similar in both groups for DM (Group 1: 1.43, Group 2: 1.64) and current smokers (Group 1: 1.52, Group 2: 1.55). This homogeneity in model parameters was also observed in women (age: 1.14, SBP: 1.01, TC: 1.00, DM [Group 1: 1.56, Group 2: 2.27], and current smokers [Group 1: 1.63, Group 2: 1.37]), and a common parameter was developed and included in the final CVD risk prediction model. The calibrating factors to adjust for contemporary mortality in 2015 were calculated to be 0.74 in men and 0.55 in women.

Conclusion We constructed a CVD risk prediction model for population health planning that can be used to estimate current mortality in the Japanese population.

P44 | **SEX DIFFERENCES IN THE RELATIONSHIP BETWEEN SOCIOECONOMIC STATUS AND HYPERTENSION IN FRANCE: RESULTS FROM A CROSS-SECTIONAL ANALYSIS OF THE CONSTANCES COHORT**

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Background There is ample evidence that hypertension prevalence increases when socioeconomic status (SES) decreases. However, sex differences in this relationship has been less studied. Investigating potential sex differences could help understand the mechanisms of social health disparities. The aim of this work was to explore the pattern of associations between several indicators of SES and hypertension across sexes in a large sample of French adults.

Methods In this cross-sectional analysis, participants are adults aged between 18 and 69 years old recruited to the CONSTANCES cohort over the period 2012–2015 in 16 recruitment centers. SES was estimated using education (individual level), income (household level) and an indicator of residential socioeconomic deprivation, FDep (municipal level). Log-binomial and Poisson regressions with robust variance estimations were used to estimate the Risk Ratios (RR) comparing the extreme levels of SES and to test for interaction of sex in the associations between SES and hypertension prevalence.

Results A total of 62,247 individuals (53% women, mean age 48±13 years) were included. Age-standardized prevalence of hypertension was 30.1% [95%CI=29.7–30.6], higher in men (37.3% [95%CI=36.6–38.0]) than in women (23.2% [95% CI=22.7–23.8]).

Globally, we found steep socioeconomic gradients of hypertension in both genders. Education showed the strongest association with hypertension prevalence, especially among women (p for interaction between sex and education <0.001): age-adjusted RR comparing the lowest versus highest level of education were 1.57 [95%CI=1.47–1.68] in women and 1.26 [95%CI=1.21–1.31] in men. Income and FDep also displayed strong associations with hypertension, but we found no