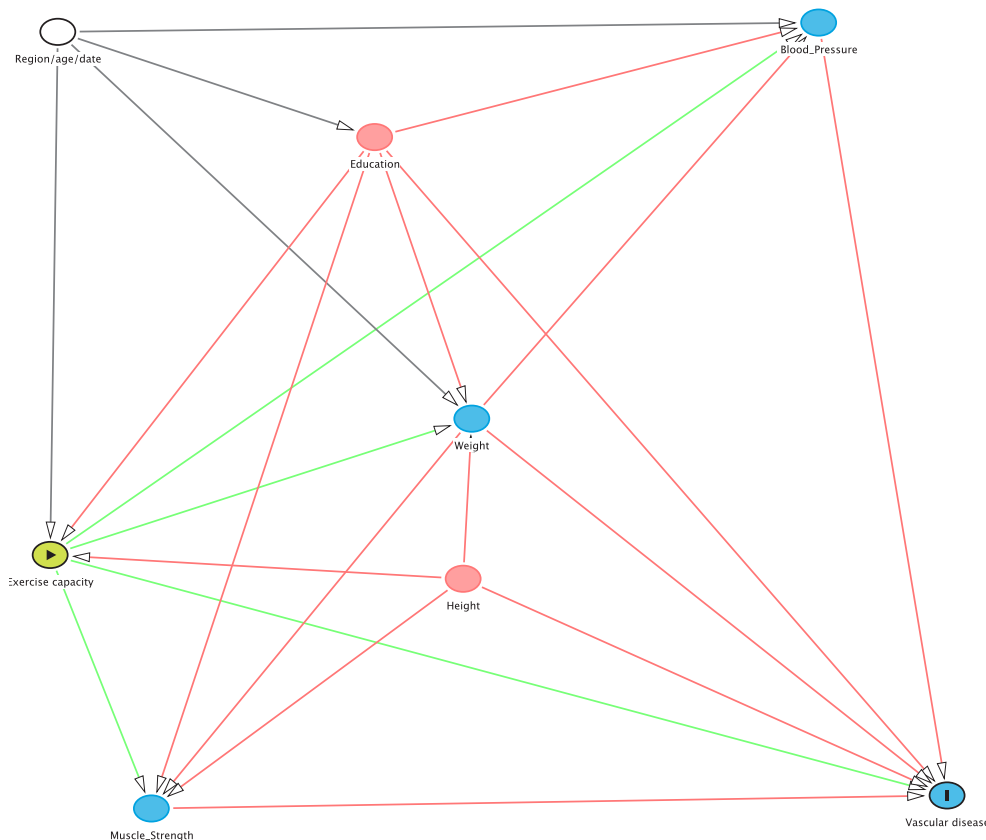


**Supplementary figure 1** - Directed acyclic graphs of suggested causal relations of exercise capacity to arrhythmias and vascular disease

## Vascular disease



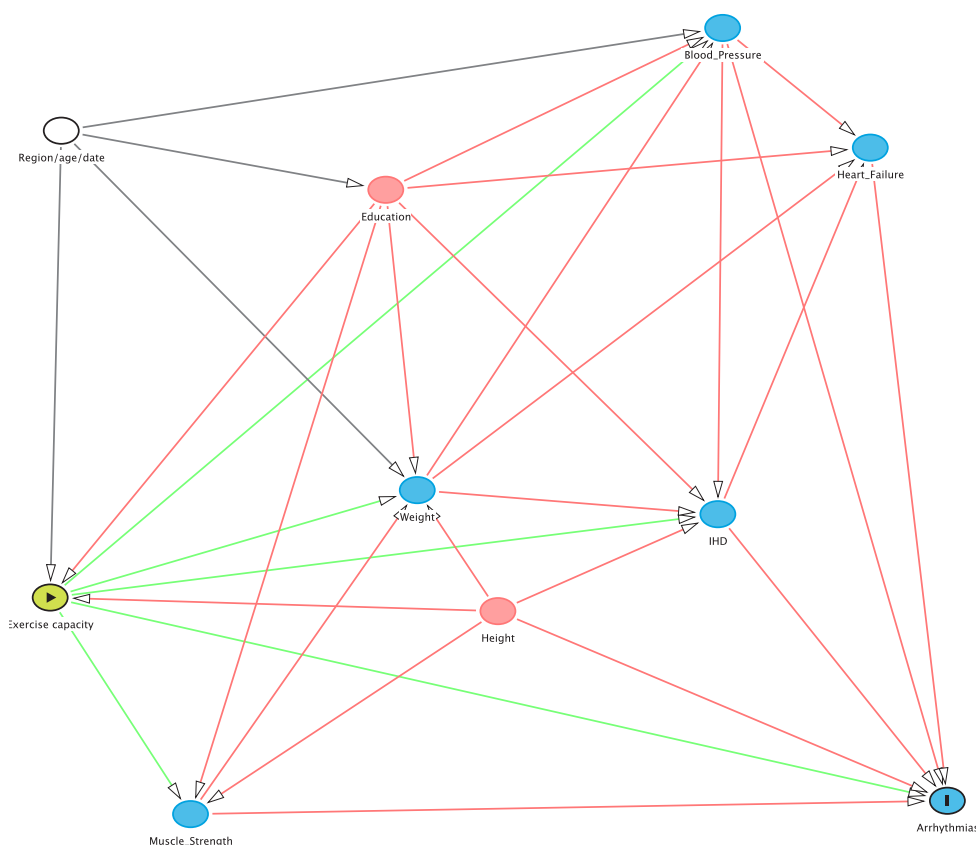
Minimal sufficient adjustment sets for estimating the total effect of Exercise capacity on Vascular disease:

**Region/Age/Date, Education, Height,**

Minimal sufficient adjustment sets for estimating the direct effect of Exercise capacity on Vascular disease:

**Region/Age/Date, Education, Height, Weight, Blood Pressure and Muscle Strength**

## Arrhythmias



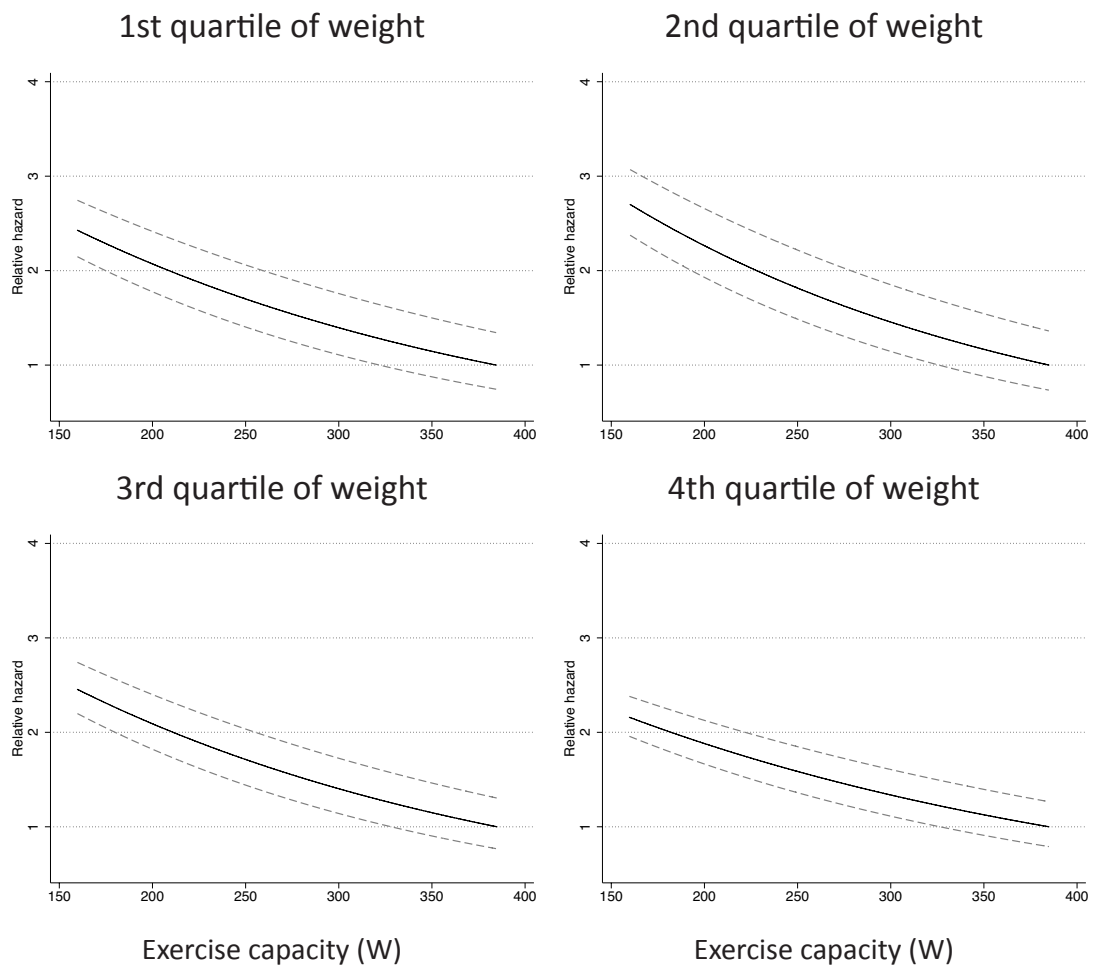
Minimal sufficient adjustment sets for estimating the total effect of Exercise capacity on Arrhythmias:

**Region/Age/Date, Education, Height,**

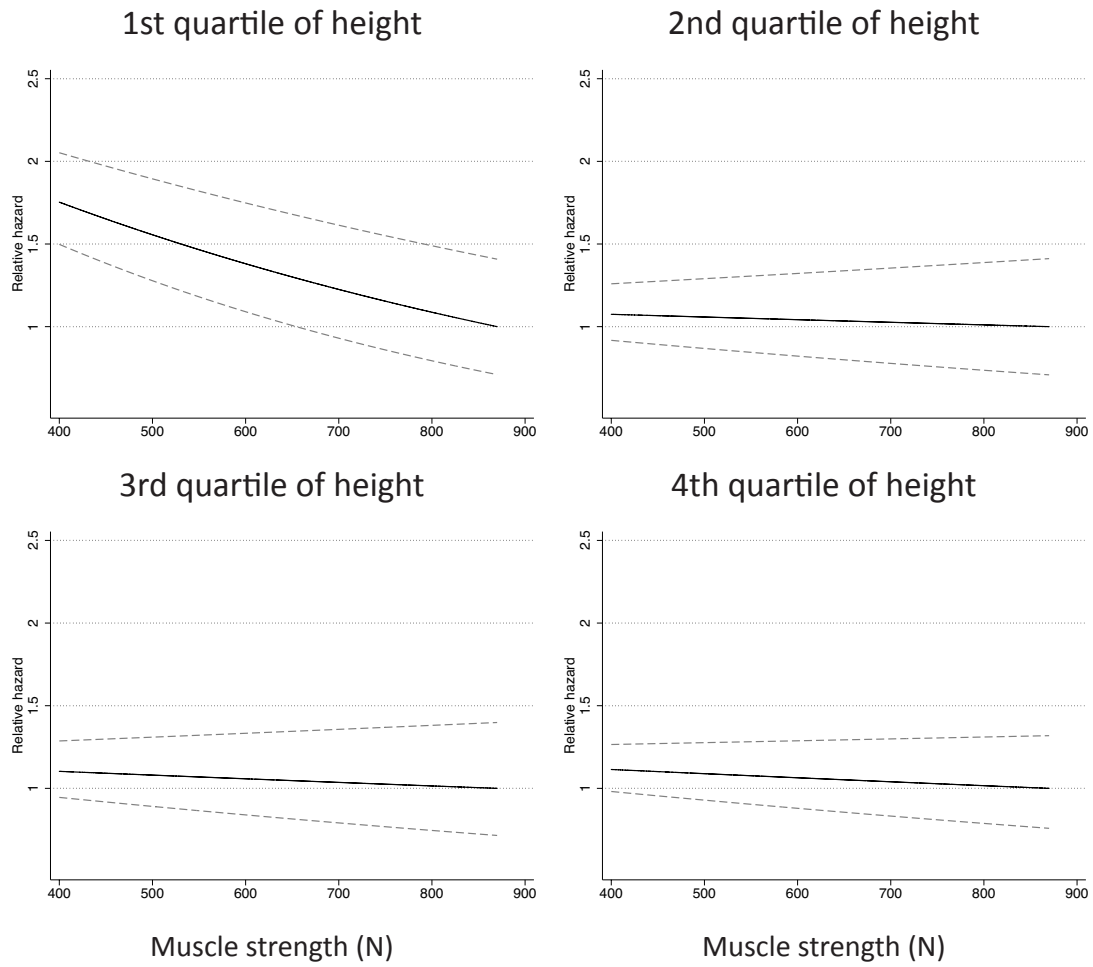
Minimal sufficient adjustment sets for estimating the direct effect of Exercise capacity on Arrhythmias:

**Region/Age/Date, Education, Height, Weight, Blood Pressure, Muscle Strength and Ischemic heart diseases (IHD)**

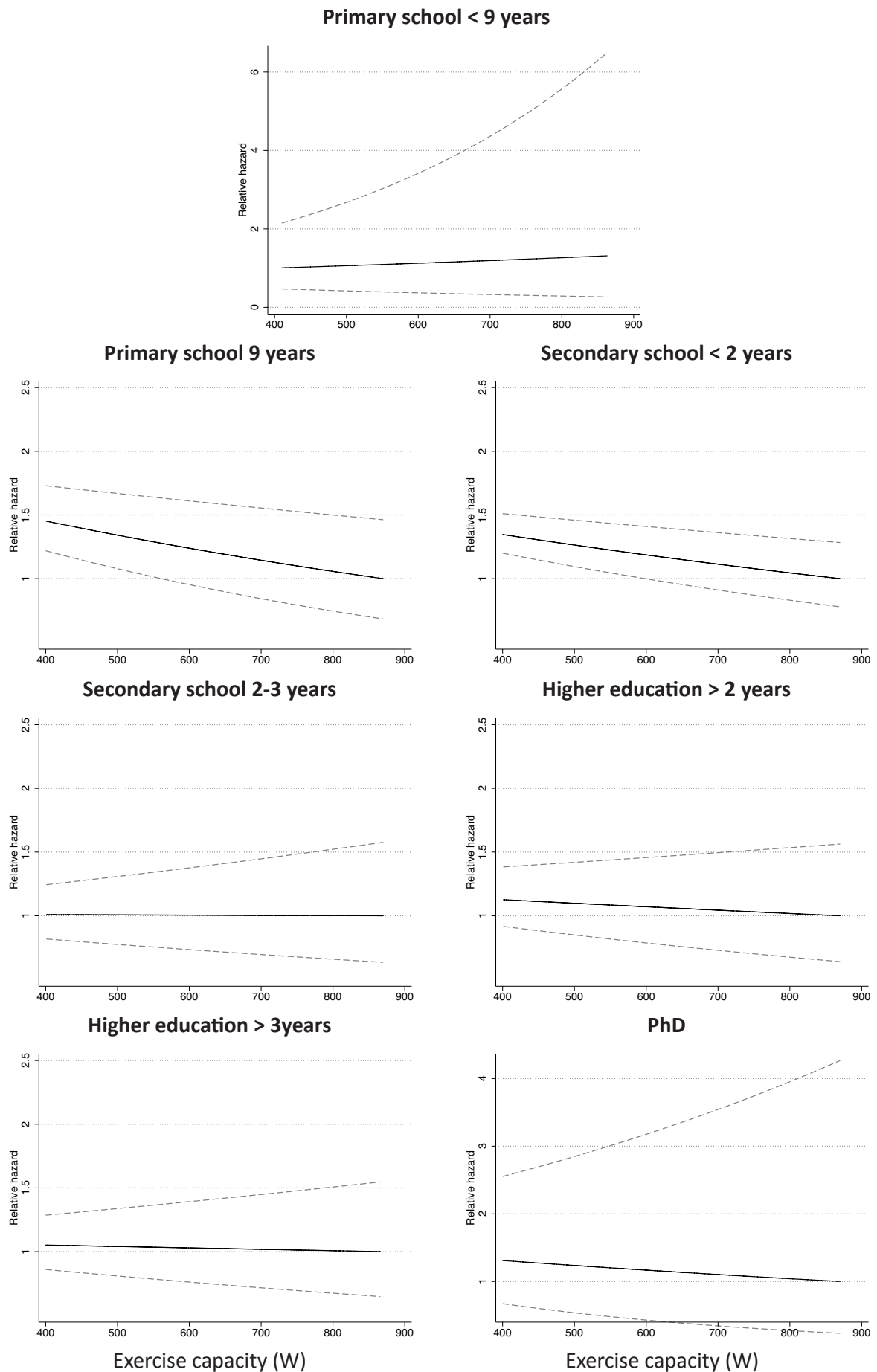
**Supplementary Figure 2** - Relations of exercise capacity to risk of vascular disease by quartiles of weight. Solid line represents relative hazard and dashed lines are 95% confidence interval limits; from multivariable regression spline Cox proportional hazards (adjusted for age, conscription date, region, educational level, height, muscle strength, systolic and diastolic blood pressure). Only observations between 1 and 99 percentiles are shown.



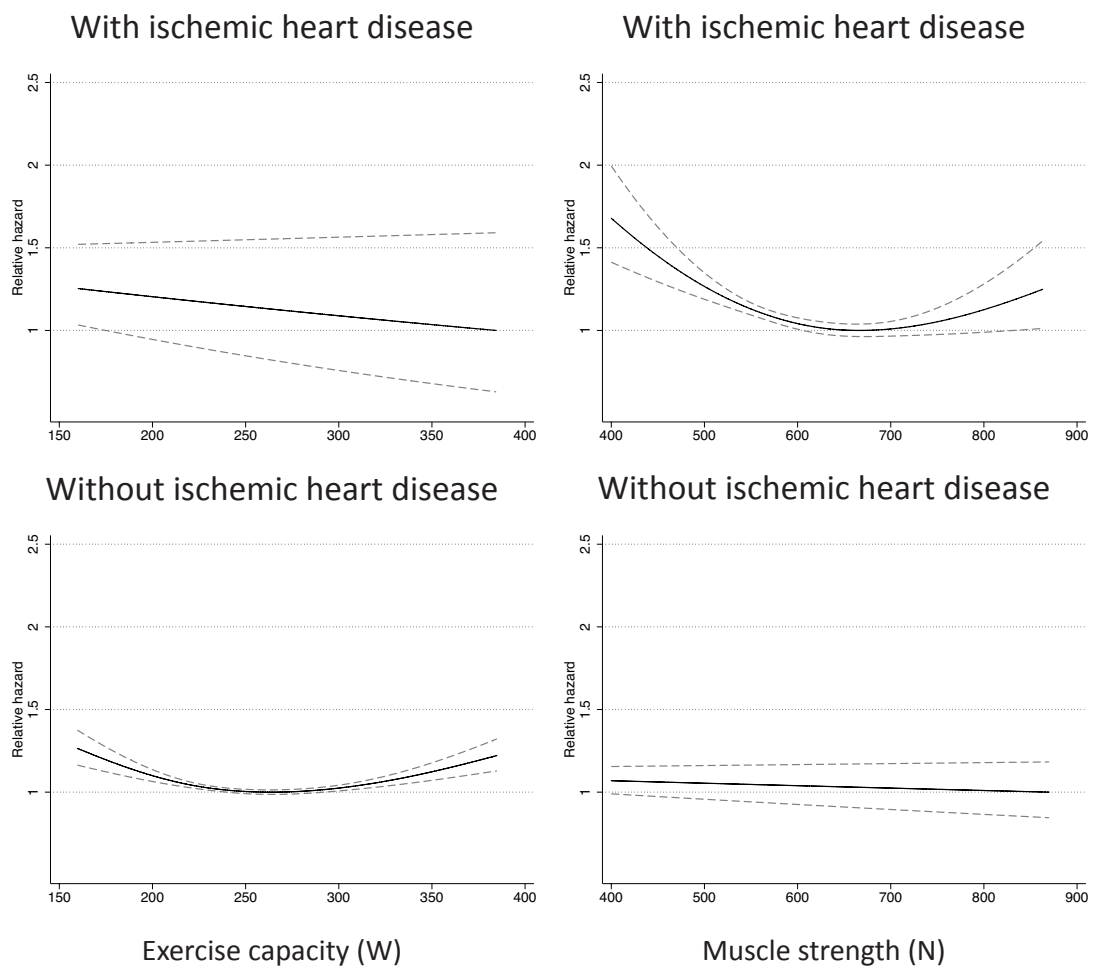
**Supplementary Figure 3** - Relations of muscle strength to risk of arrhythmias by quartiles of height. Solid line represents relative hazard and dashed lines are 95% confidence interval limits; from multivariable regression spline Cox proportional hazards (adjusted for age, conscription date, region, educational level, maximal exercise capacity, systolic and diastolic blood pressure and ischemic heart disease). Only observations between 1 and 99 percentiles are shown.



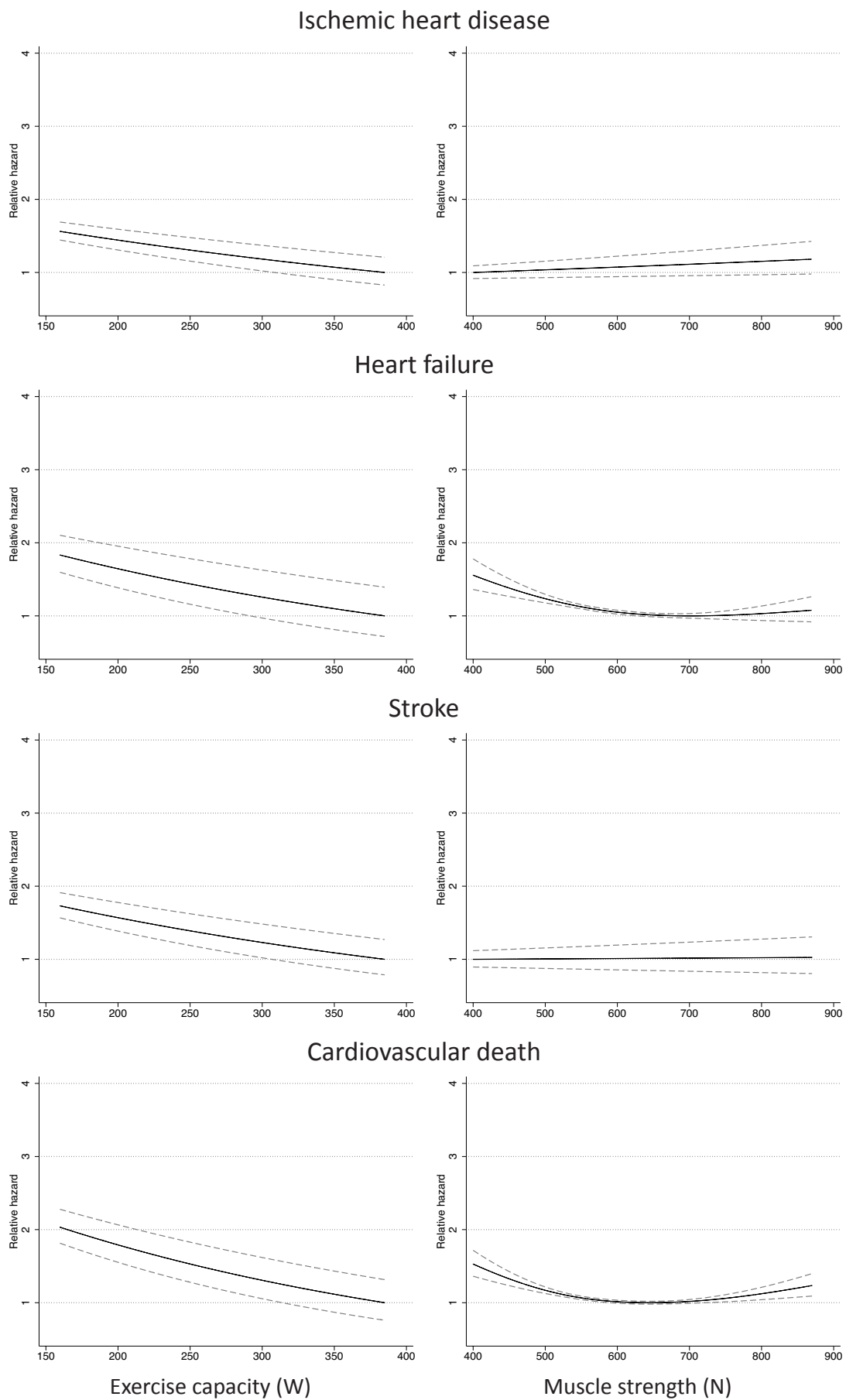
**Supplementary Figure 4** - Relations of muscle strength to risk of arrhythmias by educational level. Solid line represents relative hazard and dashed lines are 95% confidence interval limits; from multivariable regression spline Cox proportional hazards (adjusted for age, conscription date, region, educational level, maximal exercise capacity, systolic and diastolic blood pressure and ischemic heart disease). Only observations between 1 and 99 percentiles are shown.



**Supplementary Figure 5** - Relations of exercise capacity and muscle strength to risk of arrhythmias by ischemic heart disease. Solid line represents relative hazard and dashed lines are 95% confidence interval limits; from multivariable regression spline Cox proportional hazards (adjusted for age, conscription date, region, educational level, maximal exercise capacity, systolic and diastolic blood pressure). Only observations between 1 and 99 percentiles are shown.



**Supplementary figure 6** - Relations of exercise capacity and muscle strength to risk of subgroups of vascular disease. Solid line represents relative hazard and dashed lines are 95% confidence interval limits, from multivariable regression spline Cox proportional hazards. **Model A** (adjusted for age, conscription date, region, height, education level and muscle strength/exercise capacity [muscle strength adjusted for exercise capacity, and vice versa]). Only observations between 1 and 99 percentiles are shown.



**Supplementary figure 7** - Relations of exercise capacity and muscle strength to risk of subgroups of arrhythmias. Solid line represents relative hazard and dashed lines are 95% confidence interval limits; from multivariable regression spline Cox proportional hazards. **Model A** (adjusted for age, conscription date, region, height, education level, muscle strength/exercise capacity [muscle strength adjusted for exercise capacity, and vice versa]) Only observations between 1 and 99 percentiles are shown.

