

Supplementary Online Content

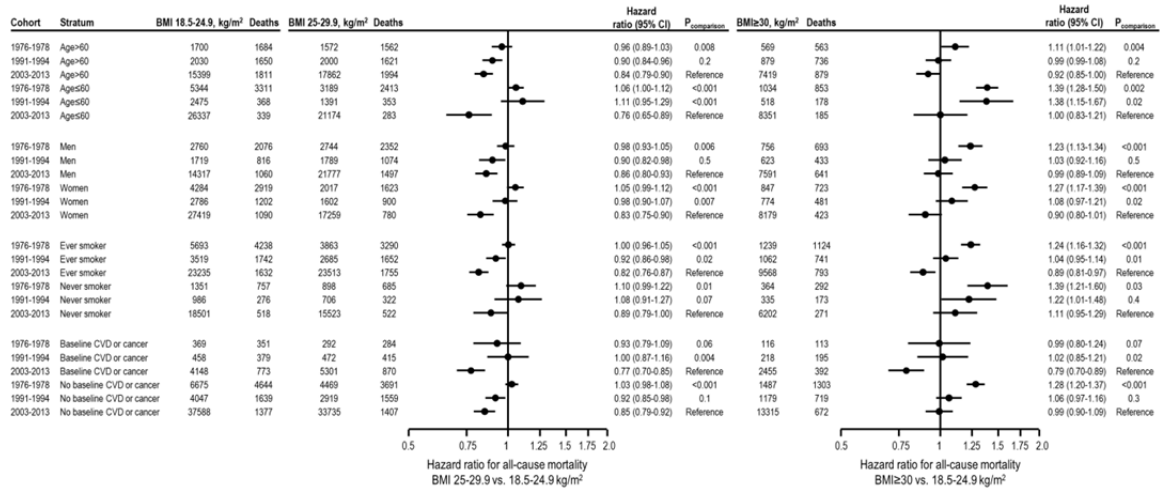
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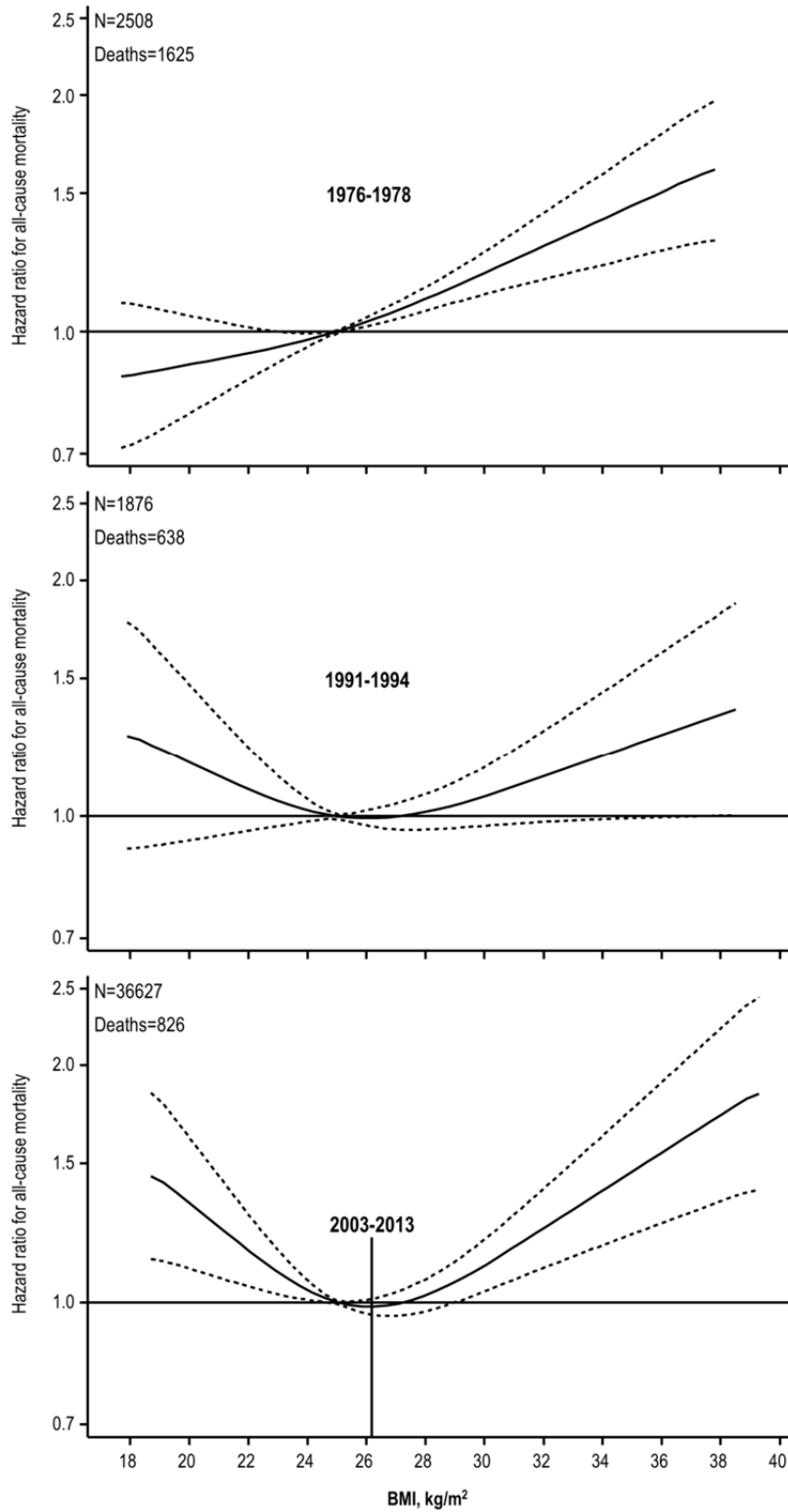
This supplementary material has been provided by the authors to give readers additional information about their work.

eFigure 1. The association of body mass index (BMI) in categories with all-cause mortality in 1976-1978, 1991-1994, and 2003-2013 in stratified analyses



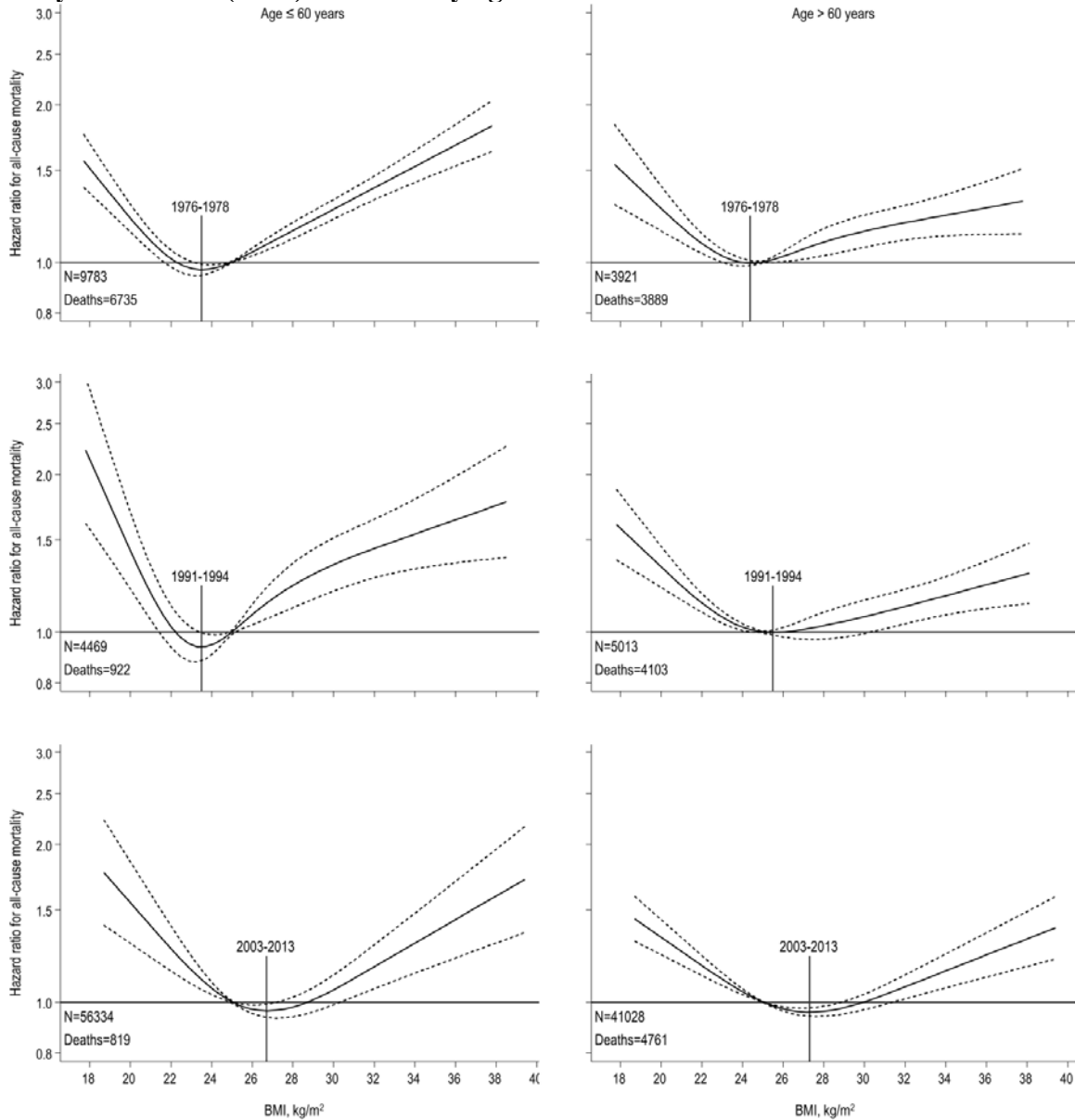
Stratification variables were chosen as these variables are thought to be major confounders in the association of BMI with mortality. BMI was categorised using WHO criteria. Estimates were derived using Cox regression adjusted for age, sex, smoking status, cumulative tobacco consumption, alcohol consumption, leisure time physical activity, income, and plasma cholesterol. P-values are for comparison of the 1976-78 and 1991-94 estimates with the 2003-2013 estimate. CVD = cardiovascular disease.

eFigure 2. Multivariable adjusted hazard ratios for all-cause mortality according to body mass index (BMI) restricted to never-smokers without baseline cardiovascular disease or cancer



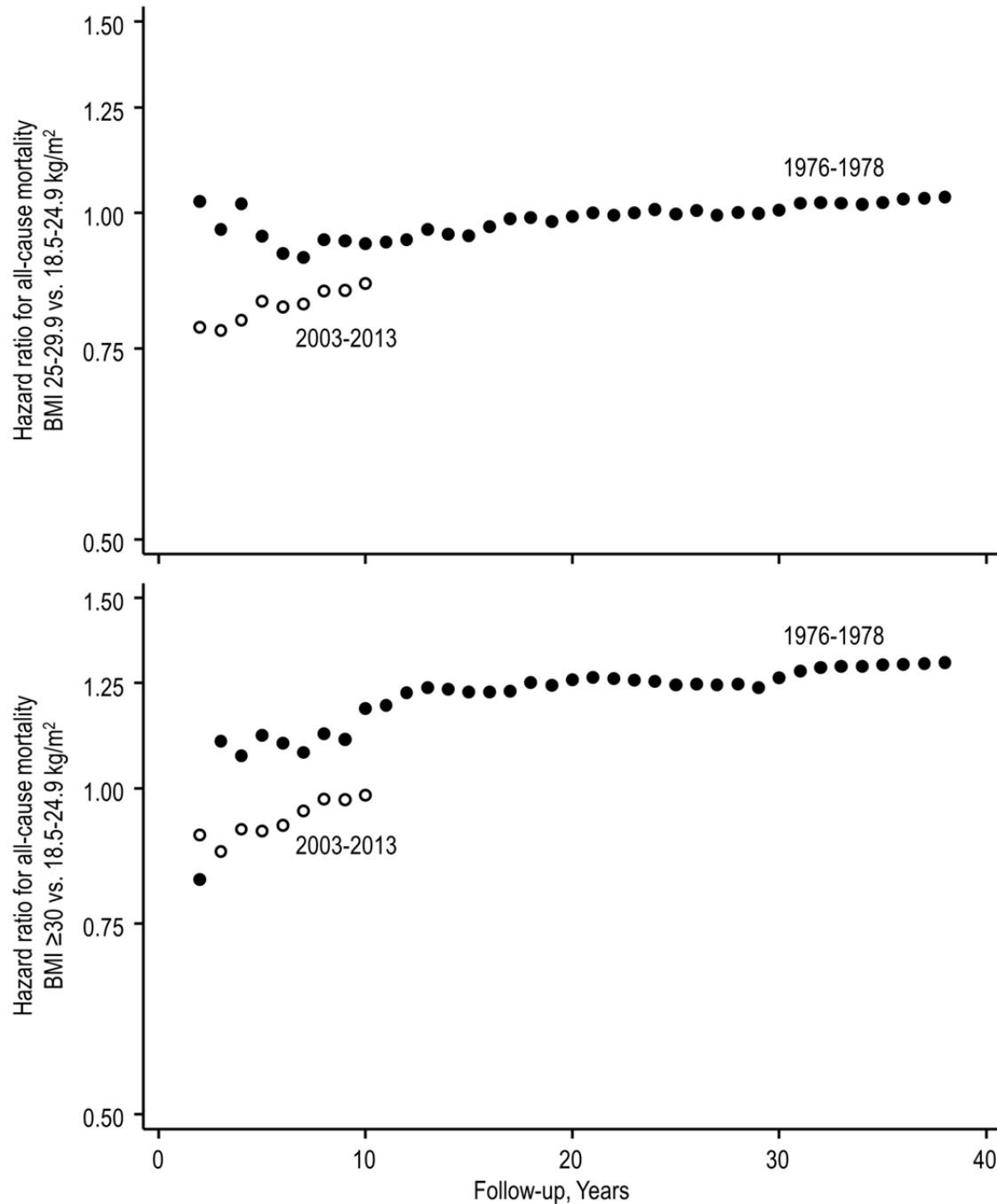
Solid lines are multivariable adjusted hazard ratios, and dashed lines indicate 95% confidence intervals derived from restricted cubic spline regression with knots chosen by Akaike information criterion as described in Methods. BMI 25 kg/m² was used as the reference. The graphs are truncated at the 1st and 99th percentiles. The Cox regression was adjusted for age, sex, alcohol consumption, leisure time physical activity, income, and plasma cholesterol. Vertical lines indicate the BMI that was associated with the lowest mortality. There are no vertical lines for the 1976-1978 and 1991-1994 cohorts as the association is linear and the 95% confidence intervals for the hazard ratios overlap almost the entire range of BMI values, respectively. The bootstrap method used to create confidence intervals for the BMI associated with the lowest mortality is not suitable for smaller samples with fewer events; thus, it could not be used for subgroup analyses. N = number of participants.

eFigure 3. Multivariable adjusted hazard ratios for all-cause mortality according to body mass index (BMI) stratified by age.



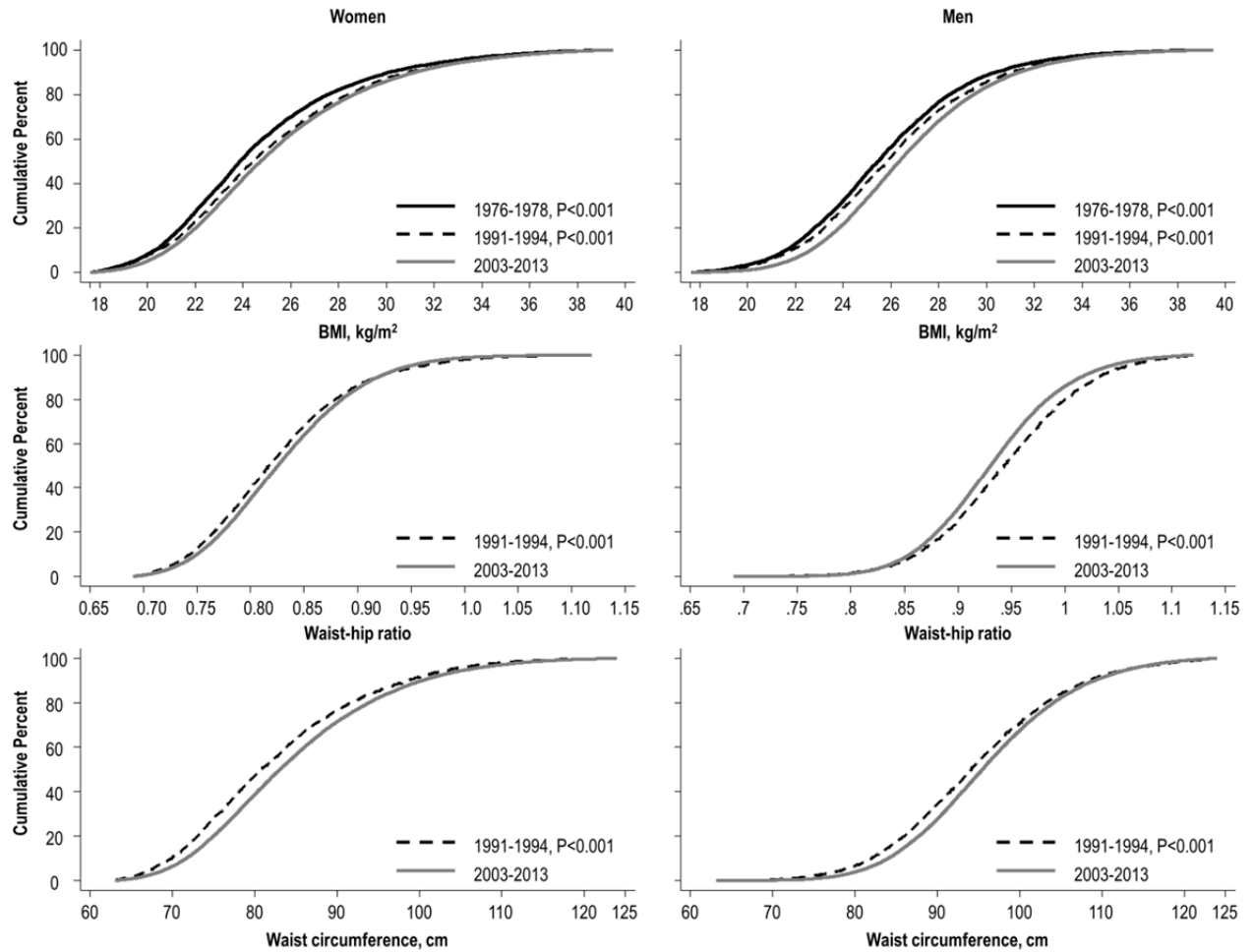
Solid lines are multivariable adjusted hazard ratios, and dashed lines indicate 95% confidence intervals derived from restricted cubic spline regression with knots chosen by Akaike information criterion as described in Methods. BMI 25 kg/m² was used as the reference. The graphs are truncated at the 1st and 99th percentiles. The Cox regression was adjusted for age, sex, alcohol consumption, leisure time physical activity, income, and plasma cholesterol. Vertical lines indicate the BMI that was associated with the lowest mortality. The bootstrap method used to create confidence intervals for the BMI associated with the lowest mortality is not suitable for smaller samples with fewer events; thus, it could not be used for subgroup analyses. N = number of participants.

eFigure 4. Hazard ratios for body mass index (BMI) 25-29.9 and BMI \geq 30 vs. 18.5-24.9 kg/m² for all-cause mortality according to follow-up time



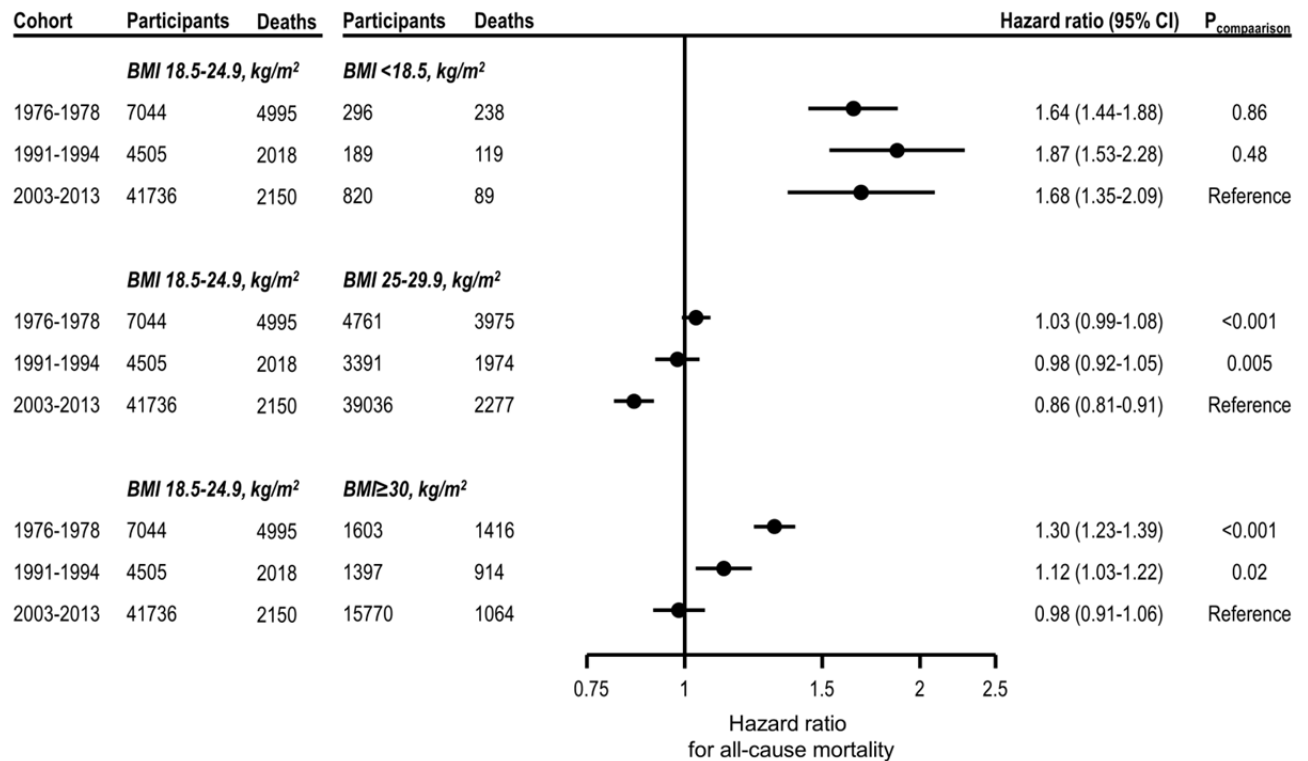
The 1991-1994 cohort was not included as it is not independent of the 1976-1978 cohort due to overlap of participants. The first estimate at 2 years of follow-up for the 1976-1978 cohort is below the 2003-2013 cohort estimates in the BMI \geq 30 vs. 18.5-24.9 kg/m² analysis.

eFigure 5. Cumulative probability distribution of age-adjusted body mass index (BMI), waist-hip ratio, and waist circumference.



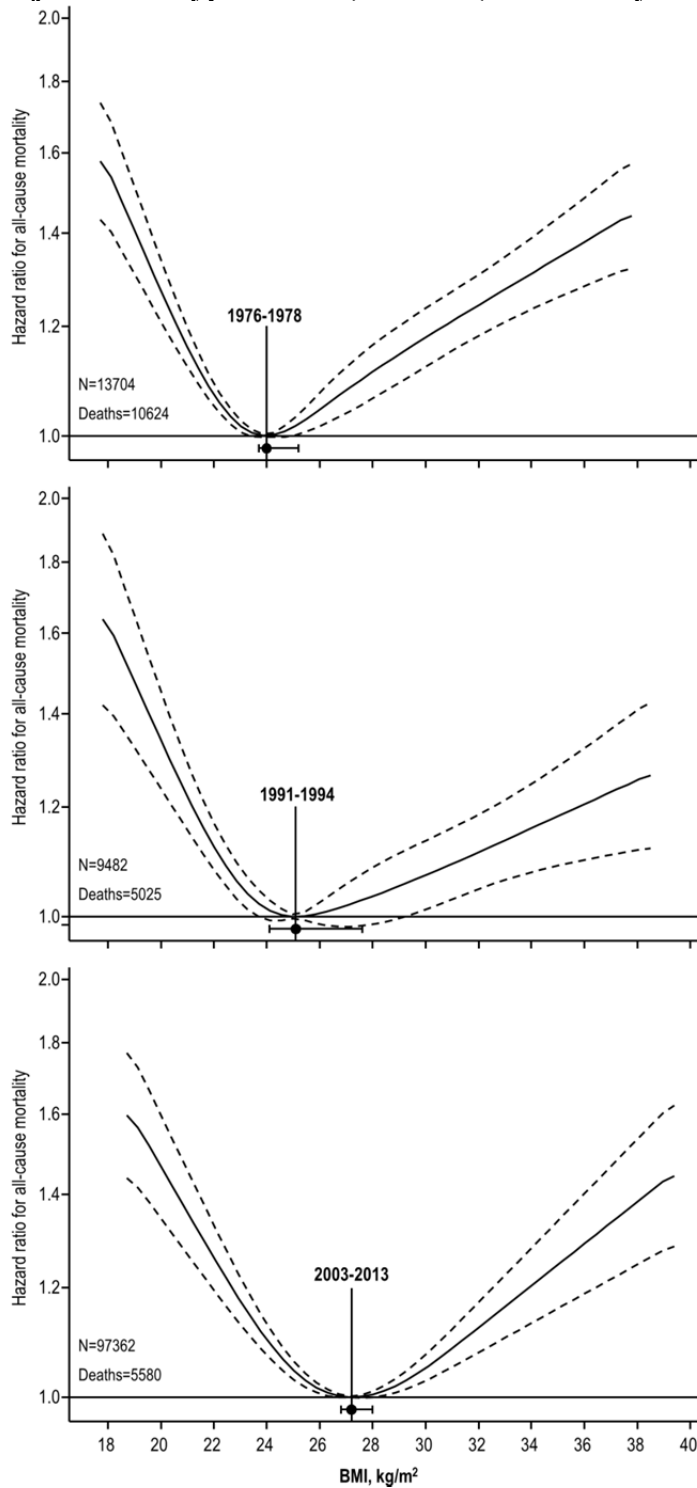
P-values are for comparison of the 1976-78 and 1991-94 cohorts with the 2003-2013 cohort using a Kolmogorov-Smirnov test for equality of distributions. The graphs are truncated at the ends to exclude outliers.

eFigure 6. The association of body mass index (BMI) in categories with all-cause mortality in the 1976-1978, 1991-1994, and 2003-2013 cohorts adjusted for height.



BMI was categorised using WHO criteria. Estimates were derived using Cox regression adjusted for age, sex, smoking status, cumulative tobacco consumption, alcohol consumption, leisure-time physical activity, income, plasma cholesterol, and height. P-values are for comparison of the 1976-1978 and 1991-1994 estimates with the 2003-2013 estimate.

eFigure 7. Multivariable adjusted hazard ratios for all-cause mortality in the 1976-1978, 1991-1994, and 2003-2013 cohorts according to body mass index (BMI) adjusted for hypertension, diabetes, and history of cardiovascular disease.



Solid lines are multivariable adjusted hazard ratios, and dashed lines indicate 95% confidence intervals derived from restricted cubic spline regression with knots chosen by Akaike information criterion as described in Methods. Vertical lines indicate the BMI

that was associated with lowest mortality. The point estimate with whiskers indicates the 95% confidence intervals for the BMI associated with lowest mortality. The graphs are truncated at the 1st and 99th percentiles. The Cox regression was adjusted for age, sex, smoking status, cumulative tobacco consumption, alcohol consumption, leisure-time physical activity, income, plasma cholesterol, hypertension, diabetes, and history of cardiovascular disease. N = number of participants.