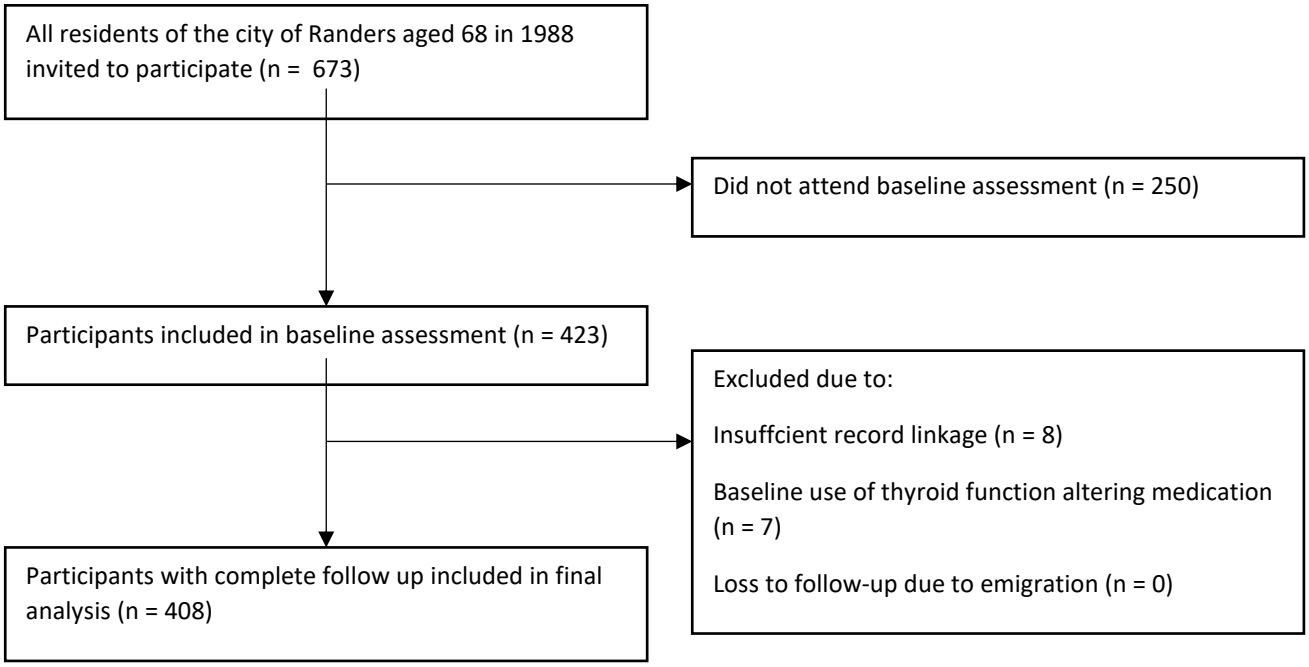
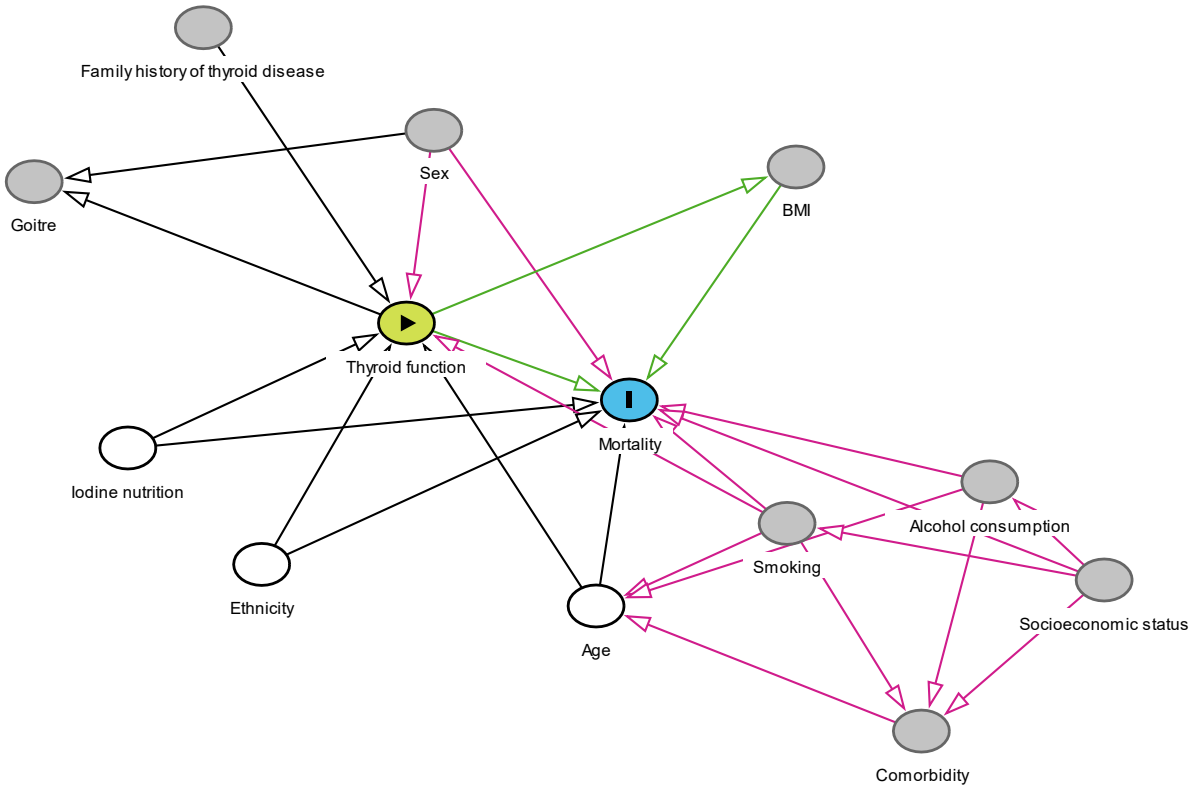
Supplementary Figure 1. Flowchart of inclusion process

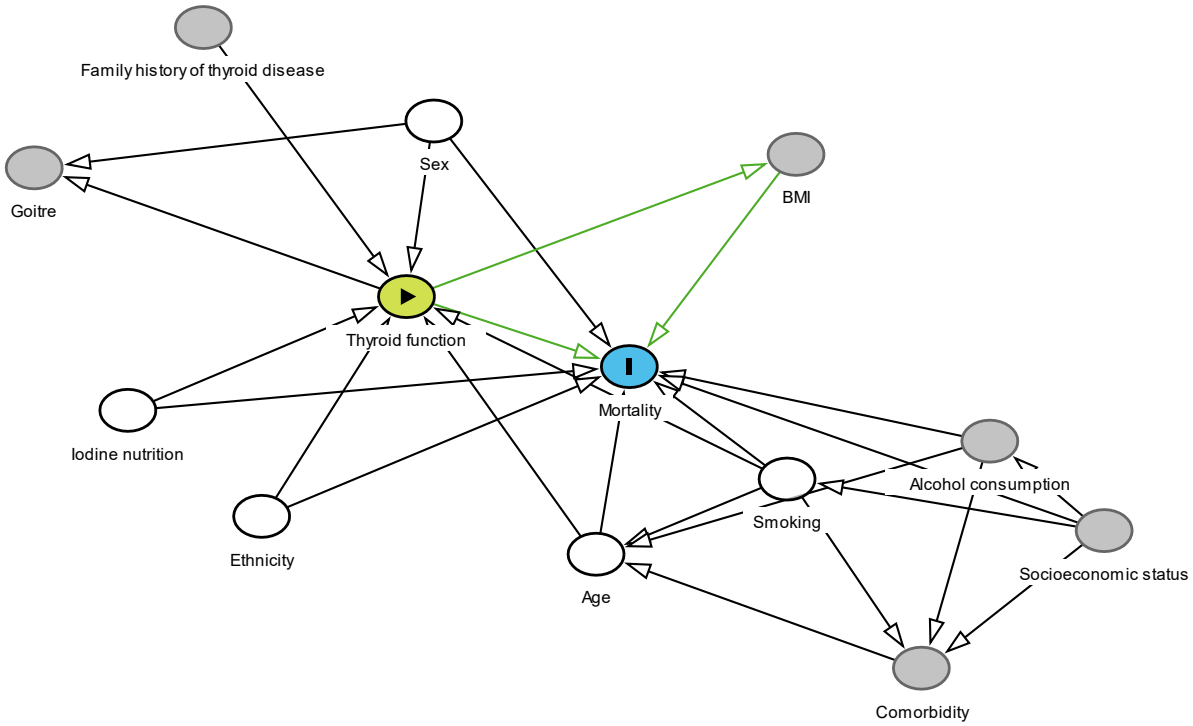


Supplementary Figure 2. Directed Acyclic Graph (DAG) of Model 1 before any adjustment in statistical models.



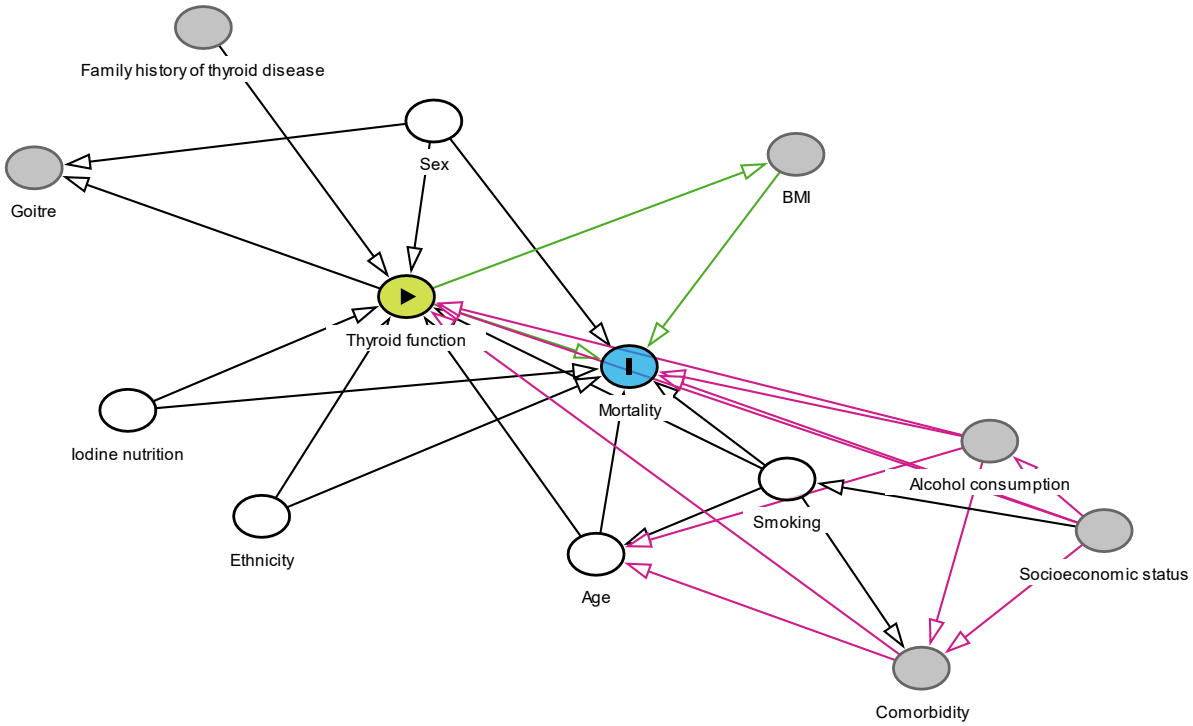
The green circle represents the exposure of interest. The blue circle represents the outcome. White circles represent covariates adjusted for in the study design. Grey circles represent other covariates. Green paths represent direct and intermediate paths from exposure to outcome and covariates on these paths should not be adjusted for. Purple paths represent biasing paths ("backdoor pathways") and variables on these paths should be considered confounders and adjusted for.

Supplementary Figure 3. Directed Acyclic Graph (DAG) of Model 1 with all biasing paths resolved after adjustment in statistical models.



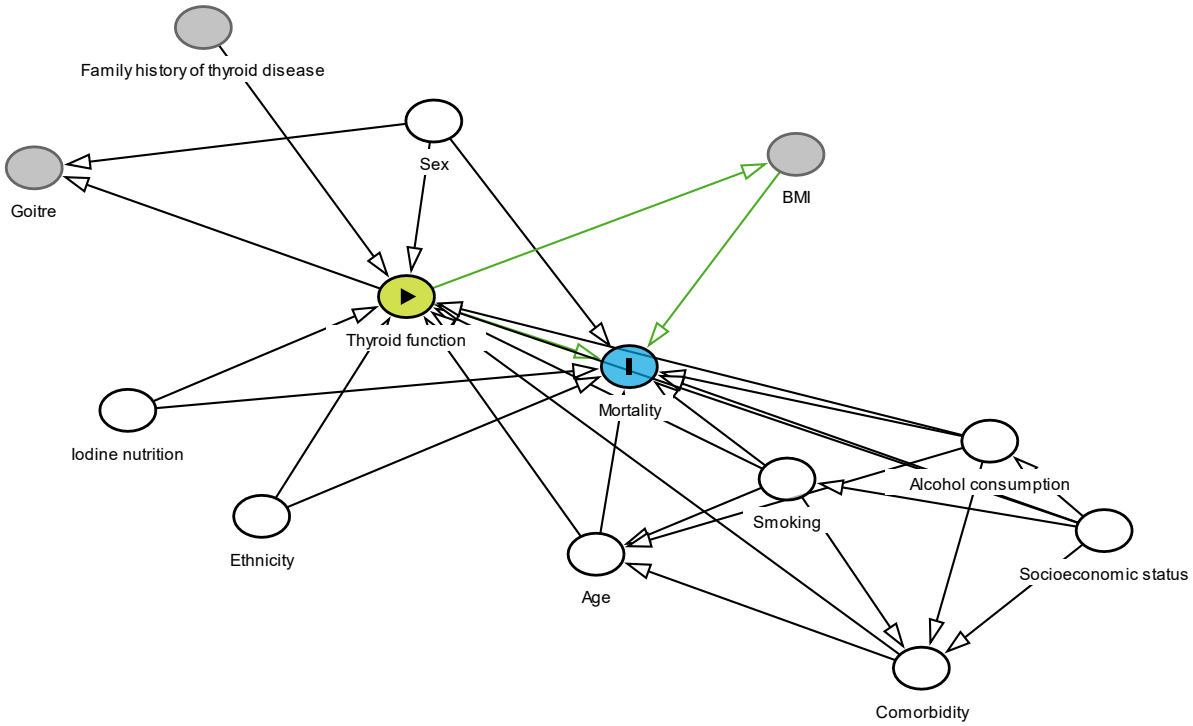
The green circle represents the exposure of interest. The blue circle represents the outcome. White circles represent covariates adjusted for in the study design and statistical analysis. Grey circles represent other covariates. Green paths represent direct and intermediate paths from exposure to outcome and covariates on these paths should not be adjusted for. Purple paths represent biasing paths ("backdoor pathways") and variables on these paths should be considered confounders and adjusted for.

Supplementary Figure 4. Directed Acyclic Graph (DAG) of Model 2 only adjusted for covariates from Model 1 in statistical models.



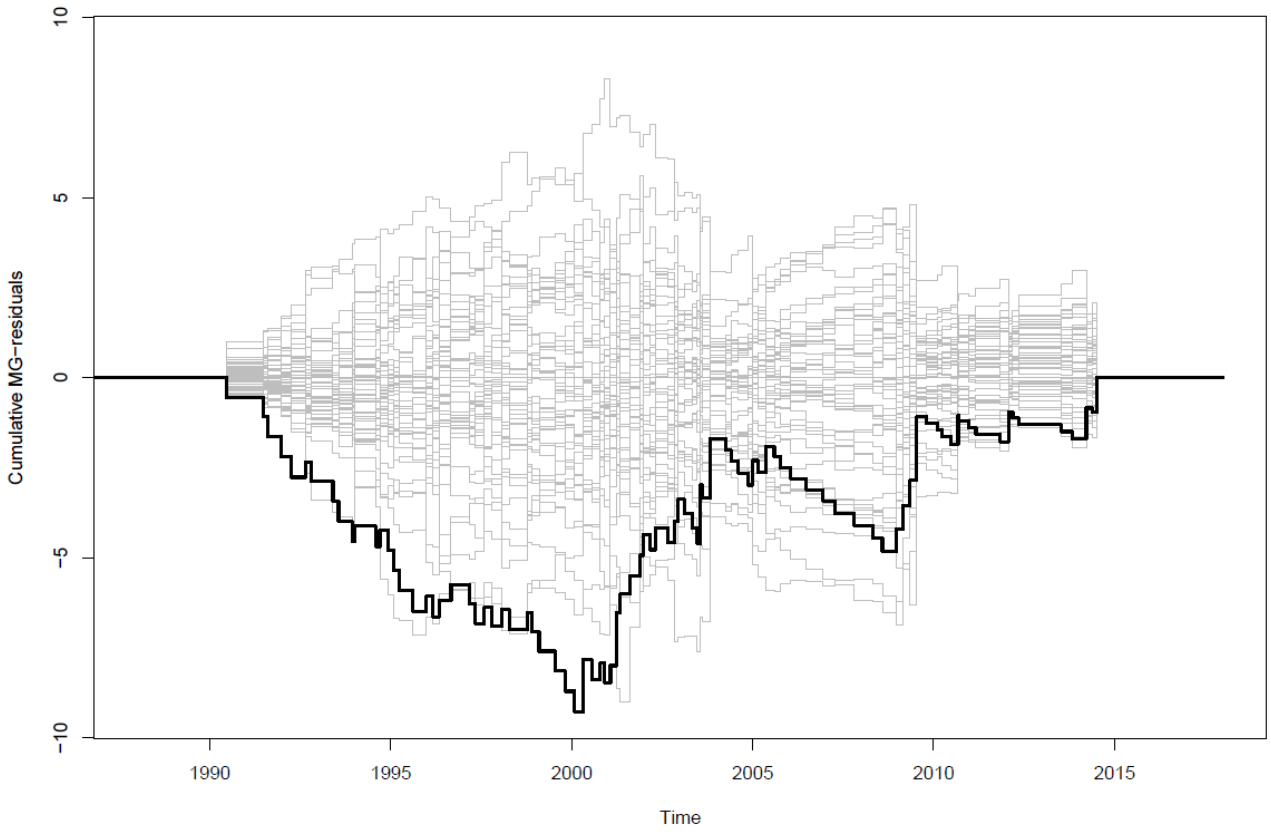
The green circle represents the exposure of interest. The blue circle represents the outcome. White circles represent covariates adjusted for in the study design and statistical analysis. Grey circles represent other covariates. Green paths represent direct and intermediate paths from exposure to outcome and covariates on these paths should not be adjusted for. Purple paths represent biasing paths ("backdoor pathways") and variables on these paths should be considered confounders and adjusted for.

Supplementary Figure 5. Directed Acyclic Graph (DAG) of Model 2 with all biasing paths resolved after further adjustment in statistical models.



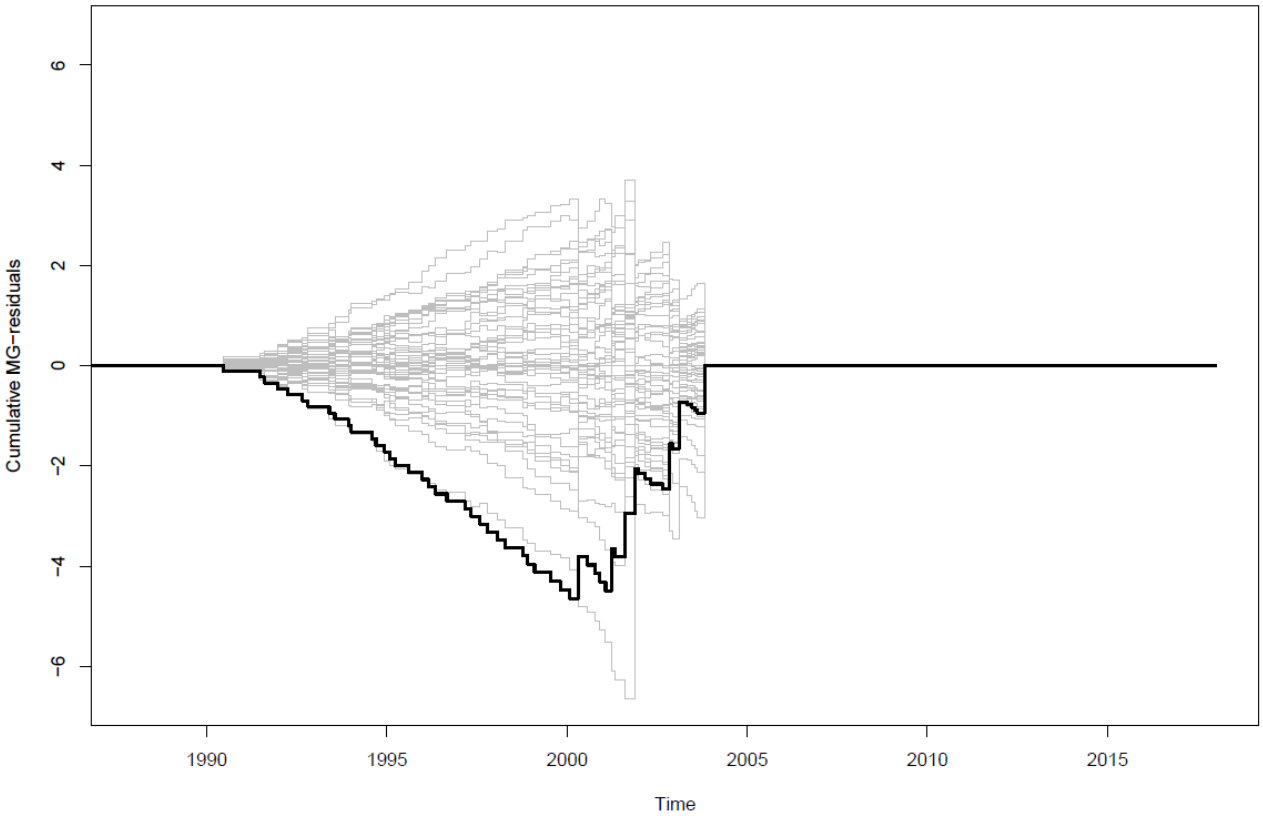
The green circle represents the exposure of interest. The blue circle represents the outcome. White circles represent covariates adjusted for in the study design and statistical analysis. Grey circles represent other covariates. Green paths represent direct and intermediate paths from exposure to outcome and covariates on these paths should not be adjusted for. Purple paths represent biasing paths ("backdoor pathways") and variables on these paths should be considered confounders and adjusted for.

Supplementary Figure 6. Plot of cumulative Martingale residuals over follow up time for participants with low TSH.



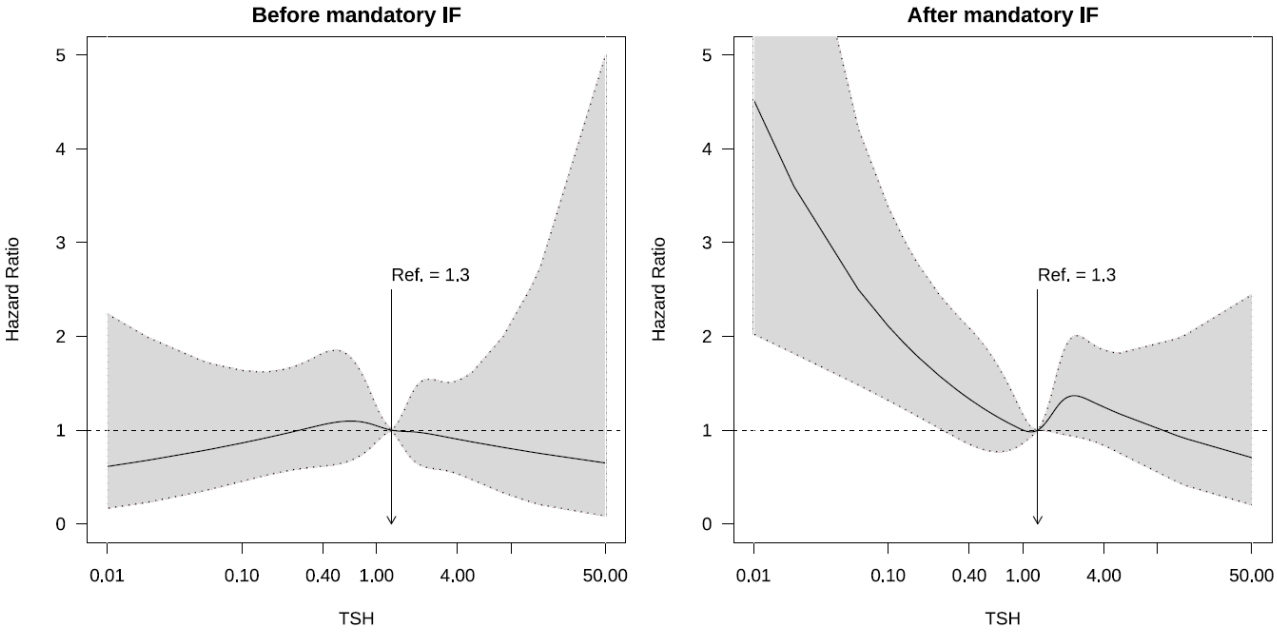
Black line represents the fitted model while grey lines represent simulated processes under the assumption of the null hypothesis of proportional hazards over time.

Supplementary Figure 7. Plot of cumulative Martingale residuals over follow up time for participants with high TT3.



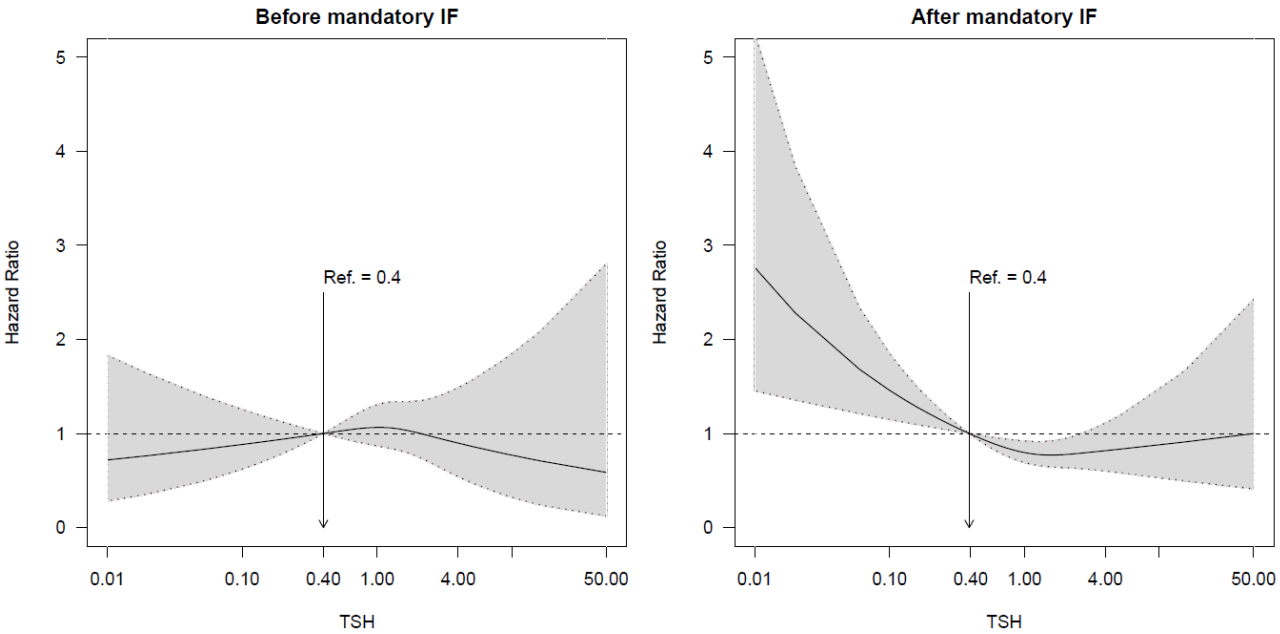
Black line represents the fitted model while grey lines represent simulated processes under the assumption of the null hypothesis of proportional hazards over time.

Supplementary Figure 8. Sensitivity analysis of restricted spline of the association between TSH and mortality before (left panel) and after (right panel) the introduction of mandatory iodine fortification with five knots instead of three.



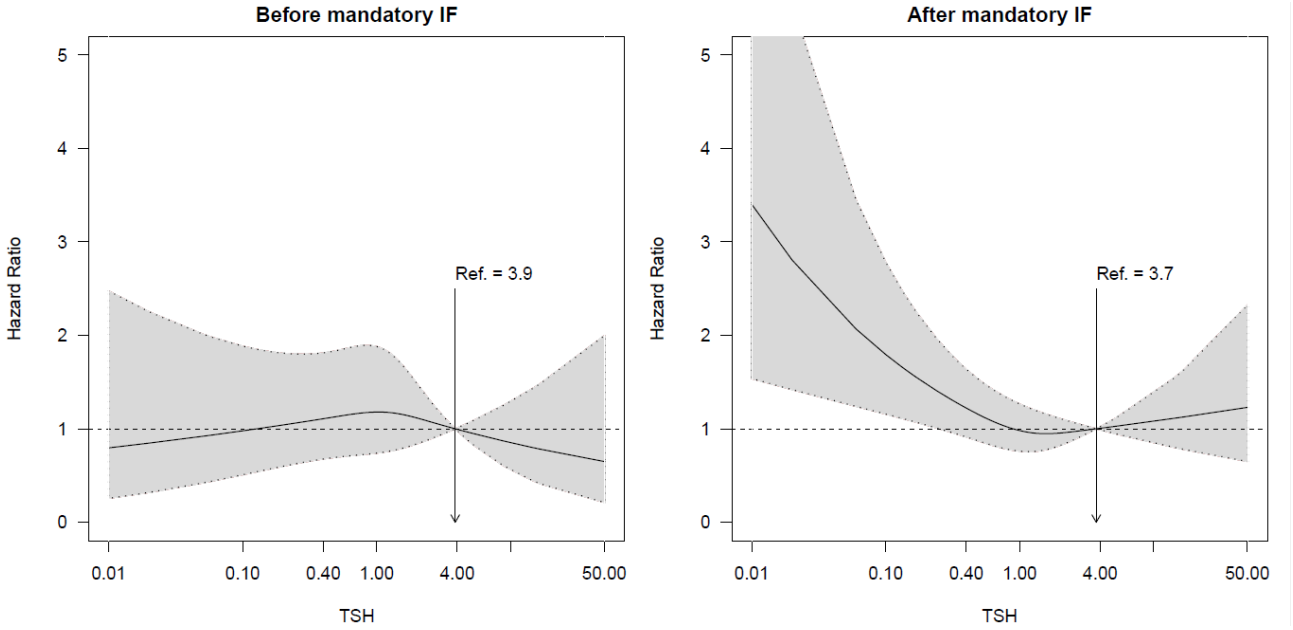
Restricted cubic splines with three knots at the 5th, 25th, 50th, 75th, and 95th percentiles. The black line represents hazard ratios with 95% confidence intervals (grey area) using the median TSH value as a reference.

Supplementary Figure 9. Sensitivity analysis of restricted spline of the association between TSH and mortality before (left panel) and after (right panel) the introduction of mandatory iodine fortification with the reference TSH set to the lower reference limit of 0.4 instead of the median value.



Restricted cubic splines with three knots at the 10th, 50th, and 90th percentiles. The black line represents hazard ratios with 95% confidence intervals (grey area) using the lower reference limit of 0.4 for TSH as a reference.

Supplementary Figure 10. Sensitivity analysis of restricted spline of the association between TSH and mortality before (left panel) and after (right panel) the introduction of mandatory iodine fortification with the reference TSH set to just below the upper reference limit of 4 instead of the median value.



Restricted cubic splines with three knots at the 10th, 50th, and 90th percentiles. The black line represents hazard ratios with 95% confidence intervals (grey area) using the closest observed value to the upper reference limit of 4 for TSH as a reference.