

Abstract Background: Studies have repeatedly demonstrated that blood donors experience lower mortality than the general population. To overcome this bias, we investigated the relation between blood donation frequency and mortality within a large cohort of blood donors. Conclusion: We observed an inverse relationship between donation frequency and mortality. Study design and methods: Using the Scandinavian Donation and Transfusion database (SCANDAT), we assessed the association between annual number of donations in 5-year windows and donor mortality by means of Poisson regression analysis. The analyses included adjustment for demographic characteristics and for an internal healthy donor effect, estimated among elderly donors exempted from continued donation because of age criteria. Analyses adjusted only for demographic characteristics showed a 18.6% reduction in mortality per additional annual donation (95% confidence interval [CI], 16.8%–20.4%). (C) 2015 AABB.