



Principal Investigator

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Application Number / Title

18815 - Comparison of "obesity paradox" in diabetic and nondiabetic population

Keywords

BMI, mortality, diabetes, ethnicity, gender, lifestyle

Application Lay Summary:

1a: Current evidence on the association between BMI and mortality both in the general population and diabetics is inconclusive with some studies reporting a linear association, some reporting a U shaped curve and some attributing the shape of the effect on factors like age, sex, ethnicity etc. Therefore, we aim to:

- assess the association between BMI and mortality in the general population and diabetic population
- investigate whether these associations differ across several potential effect-modifiers (eg, sex, ethnicity, physical activity, smoking)

1b: The UK Biobank is aimed at supporting research intended to improve prevention, diagnosis, and treatment of illness and promotion of health. This project aligns very closely with the purpose of UK Biobank and addresses a very important issue in the current health care settings in the UK. A better understanding of the association between body mass index and mortality in both diabetic and nondiabetic populations will not only feed into the recommendations for the management of diabetes and other chronic illnesses but also shed light on whether these recommendations need to be different for different groups (smokers, ethnic groups, males/females)

1c: We will quantify the risk of death associated with different body mass index (BMI) in diabetics and non-diabetics to assess whether the shapes of association are different. Furthermore, we will also assess whether the risk of death associated with different levels of BMI differs by patient factors (e.g. ethnicity, age, gender, smoking status, physical activity, physical fitness etc.)

1d: Full cohort

Project Extension:

We wanted to assess whether the risk of death associated with different levels of BMI differs by different patient factors (e.g. ethnicity, age, gender, smoking status, physical activity and other factors like physical fitness, grip strength, walking speed etc.). We are interested in exploring the role of these patient factors a bit more within the project and would like to know how these are associated with mortality overall with and without taking into account the effect of BMI.