

Julie Wallace Award Application: Andrea L Darling

Abstract summary of the proposed lecture, with title

Title: Vitamin D deficiency in western dwelling South Asian populations: an unrecognised epidemic

Vitamin D deficiency is at epidemic proportions in western dwelling South Asian populations. Of concern, research data from the UK, other European countries, Canada and New Zealand suggests that 80-100% of western dwelling South Asians are deficient in vitamin D (25-hydroxyvitamin D; 25(OH)D <50nmol/L), with 50-80% of these severely deficient (<25nmol/l) depending on season and country. Vitamin D deficiency is associated with increased risk of chronic diseases such as osteoporosis, heart disease, diabetes, cancer and infectious or autoimmune disease. This lecture will show data from the UK Biobank Cohort, which has the largest ever assessment of 25(OH)D status in western dwelling South Asians (n 6044) as well as the largest assessment of vitamin D intake (n 2206) and vitamin D supplement use (n 7753). Reasons for vitamin D deficiency in South Asians include low dietary intake of vitamin D, skin pigment filtering out UVB rays from sun, sun exposure avoidance and wearing of heavy clothing for cultural reasons which blocks the sun. Currently, the UK guideline for South Asian children (aged 4 years and over) and adults is the same as for the rest of the population in the UK (10 micrograms per day; as per the Scientific Advisory Committee on Nutrition, 2016), due to a lack of evidence assessing whether this should be higher. Increased food fortification of food items relevant to South Asian groups (e.g. chapatti flour) as well as increased use of vitamin D supplements may help reduce this epidemic. Introducing culturally acceptable ways of increasing skin exposure to the sun in South Asian women may also be beneficial but further research is needed to assess the effectiveness of all these approaches.