Vitamin D status of adults in a northern coastal town

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Abstract. We measured serum 25-hydroxyvitamin D (25(OH)D) in a random sample of adults in Harbourton in late winter. Of 240 invited adults, 212 gave a blood sample. The mean concentration was 58.4 nmol/L, and 31% were below 50 nmol/L.

Introduction

Vitamin D status is usually judged from the serum concentration of 25(OH)D. Concentrations below 50 nmol/L are often taken to indicate insufficiency. Northern populations are at risk in winter, when the sun is too low for the skin to make vitamin D.

Methods

Adults aged 18 to 75 were drawn at random from the town register and invited by letter. Blood was drawn in February and March 2020 and analysed by liquid chromatography-mass spectrometry.

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Results

212 of the 240 invited adults took part (88%). Table 1 gives the serum concentrations.

Table 1. Serum 25(OH)D by sex.

Group	n	Mean 25(OH)D (nmol/L)	SD (nmol/L)	Below 50 nmol/L (%)
Women	118	60.1	19.8	28
Men	94	56.3	20.5	35
All	212	58.4	20.2	31

Discussion

About a third of the adults in this town were below 50 nmol/L at the end of winter. This is similar to other northern coastal populations.

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