

## Abstract

Vegetarian diet has been linked to various health benefits. However, there are some common nutritional concerns resulting from the elimination of animal-food sources which can predispose the vegetarians to a greater risk of nutritional deficiencies, mainly include calcium, iron, and vitamin B12. The objective of this current study was to assess the differences in calcium, iron, and vitamin B12 adequacy intakes in vegetarian and non-vegetarian women. The contribution of food sources to the calcium, iron, and vitamin B12 intake was also observed. This study was conducted on women aged between 20-40 years old, living in Jakarta and Greater Jakarta area using online semi-quantitative FFQ. From the results, significant difference was only found in iron intakes between groups. Generally, vegetarians had adequate intakes of calcium ( $914.0 \pm 363.1$  mg/day) and iron ( $24.4 \pm 11.0$  mg/day) compared with non-vegetarians which had below the recommended intakes ( $758.6 \pm 384.4$  mg/day for calcium,  $15.5 \pm 7.4$  mg/day for iron) due to lower intake of food rich in calcium and iron. Only 31% of the vegetarians had adequate vitamin B12 intake, yet they have similar mean levels of vitamin B12 adequacy with non-vegetarians due to dietary supplement consumption, 175.4% in vegetarians and 199.1% in non-vegetarians respectively. The category of nuts and processed products was majorly contributed to calcium, iron, and vitamin B12 intakes in both groups. Thus, in this study, non-vegetarians are recommended to increase their food consumption high in calcium and iron content to meet the calcium and iron requirements.

**Keywords:** vegetarian, calcium, iron, vitamin B12, online-FFQ.