

# Association of Vitamin D deficiency, season of the year, and latent tuberculosis infection among household contacts

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© 2017 Balcells et al. This is an open access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. Objectives Vitamin D (VD) enhances the immune response against *Mycobacterium tuberculosis* in vitro, and VD deficiency has been described in patients with active tuberculosis (TB). However, the role of hypovitaminosis D in the pathogenesis of early TB infection acquisition is unclear. We aimed to evaluate the association of VD deficiency, season of the year, and latent TB infection in household contacts (HHC), given that this is a potentially modifiable condition often related to nutritional deficiencies and lack of sun exposure. Methods We prospectively enrolled new pulmonary TB cases (n = 107) and their HHC (n = 144) over a 2-year period in Santiago, Chile. We compared plasma 25-hydroxycholecalciferol (25OHD) levels and examined t