

## ABSTRACT

ADIRA TRISTA MAYA. 2023. Effect of Pretreatment of Red Bean on Nutritional Content, Fiber, and Antioxidant Activity as a Substitute Food for Patients with Non-Communicable Diseases (NCDs). SKRIPSI. Politeknik Kesehatan Kemenkes Malang. Supervisor: Astutik Pudjirahaju, M.Si and Maryam Razak, S.TP., M.Si.

The prevalence of non-communicable diseases in Indonesia reached 41 million people or equivalent to 74% of all deaths globally in 2022. The increase in the prevalence of non-communicable diseases is related to an unhealthy diet and does not meet balanced nutrition. Dietary arrangements by consuming diverse foods every day nutritional needs can be met. The purpose of the study was to analyze the nutritional quality (water content, ash content, protein content, fat content, carbohydrate content, energy, fiber content, and antioxidant activity), and the best treatment in the preliminary treatment of red beans as a substitute for seligan food for people with non-communicable diseases. The research method used experimental with the research type of Completely Randomized Design (CRD) using 4 levels of treatment namely P<sub>1</sub> (Soaking for 12 hours), P<sub>2</sub> (Soaking for 24 hours), P<sub>3</sub> (Water vapor blanching), P<sub>4</sub> (Water blanching). The results showed a significant effect ( $p > 0.05$ ) on nutrient content, fiber, and antioxidant activity. Treatment level P<sub>4</sub> is the best treatment level with the highest nutrient content, fiber, and antioxidant activity.

**Keywords:** antioxidant activity, kidney bean, non-communicable diseases, f