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## **An Increase in Blood Pressure After the Pandemic Observed Among the Elderly in Indonesia**

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### **Objectives:**

The COVID-19 pandemic has disrupted daily life and medical care, leading to the emergence of chronic diseases such as hypertension. The elderly are one of the groups most affected. However, research on changes in blood pressure in the elderly remains limited. This study aims to determine changes in blood pressure among the elderly before, during, and after the pandemic.

### **Methods:**

We compared the blood pressure of the elderly in the pre-pandemic, pandemic, and post-pandemic eras using a retrospective cohort study. Participants in this study were elderly (60–74 years old) who received a monthly health examination at the Elderly Integrated Health Service Sambirejo from January 2019 to December 2022. Participants with missing data were excluded. We examine the monthly mean systolic and diastolic blood pressure of each participant and categorize it according to the pandemic timeline in Indonesia: pre-pandemic (January 2019–February 2020), pandemic (March 2020–May 2022), and post-pandemic (June 2022–December 2022).

### **Results:**

Thirty-three participants, including thirteen men and twenty women, were recruited. The mean age is 63.17 years old. The education level of participants included 51.5% primary, 21.3% secondary, 9% tertiary, and 18.2% non-formal. The mean systolic blood pressure of women increased by 0.332 mmHg during the pandemic compared to before the pandemic and by 14.230 mmHg during and after the pandemic. Mean women's diastolic blood pressure decreased by 0.289 mmHg before the pandemic and increased by 10.091 mmHg from the pandemic to the post-pandemic, while mean men's systolic blood pressure increased by 5.361 mmHg during the pandemic and by 7.435 mmHg during the post-pandemic. During the pandemic, the mean diastolic blood pressure of males decreased by 0.976 mmHg and increased by 3.757 mmHg after the pandemic.

### **Conclusions:**

At the beginning of the pandemic, blood pressure increased. It leveled off during the pandemic and then increased gradually afterward.

Table 1. Characteristic of participants.