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INVENTION AND INNOVATION EXHIBITION (I-JaMCSIIIX) 2023

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Forecasting the Number of Schistosomiasis Cases (Snail Fever) in Napu, Central Sulawesi, Using the Auto Regressive Integrated Moving Average (ARIMA) Method

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Abstract—Schistosomiasis is the second deadliest parasitic disease after malaria. In Indonesia, schistosomiasis is caused by the trematode worm *Schistosoma japonicum* which is endemic in three regions in Central Sulawesi, namely the Lindu Plateau, Napu Plateau and Bada Plateau. A global public health perspective states that schistosomiasis is a water-based disease and is considered a neglected tropical disease, until now schistosomiasis interventions continue to increase. The aim of this study was to forecast the number of schistosomiasis patients in the Napu region of Poso District and provide a scientific contribution to planning for the prevention and control of this disease. The results showed that the forecasting that has been done shows a very worrying trend regarding the number of schistosomiasis cases in the Napu Region. In 2023, the number of cases reached 392. However, a more significant increase occurred in 2024, where the number of cases jumped to 472. Even more concerning, forecasts for 2025 indicate that the number of cases could reach 588. This is a very serious sign and should be a major concern in efforts to prevent and control this disease in the region. The efforts that can be made to eliminate schistosomiasis are as follows: Providing mass treatment, controlling snail population as the vector of schistosomiasis transmission, providing education about the dangers of schistosomiasis, and improving access to clean water.

Keywords—Forecasting, Schistosomiasis, Tropical Disease, *Schistosoma Japonicum*



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