## THE SAPRIN



## SAPRIN releases Individual Surveillance Episodes 2024 Datasets June 2025

The <u>South African Population Research Infrastructure Network (SAPRIN)</u> recently released its <u>Individual</u> <u>Surveillance Episodes 2024 Datasets</u>. It contains longitudinal population data from 1 January 1993 to 31 December 2023 for three rural Health and Demographic Surveillance Site (HDSS) nodes, namely Agincourt, DIMAMO and AHRI.

This dataset contains a picture of the continually evolving population dynamics in these nodes. SAPRIN is unique in that it collects longitudinal data that is accessible to scientists and students to further their research requirements. The data is not based on a sample but contains information from the complete demographic surveillance areas.

The release consist of three types of datasets viz; Basic Dataset, Age-Year Dataset and Age-year Delivery Dataset. These available and be accessed are to the public can via this link https://saprindata.samrc.ac.za/index.php/catalog/88/study-description.

Complementing these datasets are three newly added licensed datasets: the Labour Episodes, Individual Household Status Episodes, and Partner Episodes datasets. These are available only to registered and approved users via the SAPRIN Data Portal. The Labour Episodes dataset tracks employment status over time; the Individual Household Status Episodes dataset reflects changes in household membership and status; and the Partner Episodes dataset documents relationship histories.

One of SAPRIN's goals has been to harmonise and share the longitudinal data from the initial three Health and Demographic Surveillance System (HDSS) Nodes. These long-standing nodes are the MRC/Wits University Agincourt HDSS in Bushbuckridge District, Mpumalanga, established in 1993, with a current population of 104,679 people; the University of Limpopo DIMAMO HDSS in the Capricorn District of Limpopo, established in 1996, with a current population of 101,376; and the Africa Health Research Institute (AHRI) HDSS in uMkhanyakude District, KwaZulu-Natal, established in 2000, with a current population of 156,751. This brings the dataset size to 362,806.

All SAPRIN HDSS nodes collect data in 3 annual rounds over a 45-week data collection schedule. There is one field-based round, and two computer assisted telephonic interviews each year. This creates three data points at an interval of approximately 4 months in each calendar year. The data undergoes a rigorous quality assurance process. To produce the final standard dataset, the data is processed using Julia Code on the Centre for High Performance Computing cluster.

The SAPRIN episode data provides continuous, longitudinal insights into population health and demographic trends, enabling researchers and policymakers to track birth rate changes, death rate, and migration over time. The data informs evidence-based policymaking, helps design targeted health interventions, and ensure efficient resource allocation. It also supports health research by evaluating intervention impacts, and uncovering health

Funded by the Department of Science, Technology & Innovation (DSTI) Hosted by the South African Medical Research Council (SAMRC)

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disparities across population subgroups.

Dr André Rose, Director (Acting) of SAPRIN said, "SAPRIN's 2024 dataset is a living record of South Africa's rural communities—capturing resilience, change, and continuity. It empowers researchers to turn data into action and insight into impact."

The mortality and birth rate trends for the 3 nodes, depicted below are some of the types of analysis that can be conducted using the SAPRIN Individual Surveillance Episodes 2024 Datasets.

## **SAPRIN Mortality Rate Trends**



## **SAPRIN Birth Rate Trends**



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