

SAPRIN Expands National Surveillance Data with Inclusion of First Urban HDSS Node

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The [South African Population Research Infrastructure Network \(SAPRIN\)](#) released its [Individual Surveillance Episodes 2025 Datasets](#) earlier this year. A significant milestone is the inclusion of data from SAPRIN's first urban Health and Demographic Surveillance System (HDSS) node, GRT-INSPIRED. The addition enhances SAPRIN's ability to track population, health and demographic transitions across both rural and urban South African settings.

The dataset contains longitudinal population data from 1 January 1993 to 31 December 2024 for four SAPRIN HDSS nodes. The three founding nodes are: MRC/Wits University Agincourt HDSS in Bushbuckridge District, Mpumalanga, established in 1993, with a current population of 119,050 people; the University of Limpopo DIMAMO HDSS in the Capricorn District of Limpopo, established in 1996, with a current population of 103,868; the Africa Health Research Institute (AHRI) HDSS in uMkhanyakude District, KwaZulu-Natal, established in 2000, with a current population of 159,204; and the GRT-INSPIRED HDSS, Gauteng, established in 2020, with a current population of 68,417. This brings the dataset size to 450,539.

The release consists of three types of datasets viz; Basic Dataset, Age-Year Dataset and Age-year Delivery Dataset. These are available to the public and can be accessed via this link [South Africa - SAPRIN Individual Surveillance Episodes 2025 Datasets](#). Users are required to register on the SAPRIN data repository in order to access the data.

The 2025 dataset contains longitudinal demographic information on 775,317 unique individuals and 130,213 households. It represents approximately 7 million person-years of observation and represents a population under observation of 450,539. SAPRIN operates with a standard shared surveillance protocol with communities of practice thus promoting high quality research operations.

This dataset represents a snapshot of the continually evolving data in the underlying longitudinal databases maintained by four of SAPRIN's seven HDSS nodes. All SAPRIN nodes conducted a baseline household census at their beginning and all individuals enrolled at this point start their surveillance episode with enumeration.

These datasets are accessible to scientists, students and the research fraternity at large. The data is not based on a sample but contains information from the complete demographic surveillance areas. Unlike sample surveys, SAPRIN collects information from all households residing within its surveillance areas.





This population-based approach allows researchers to study demographic and health transitions with exceptional precision, providing evidence that is difficult to obtain from conventional survey designs.

The longitudinal nature of SAPRIN's data enables researchers and policymakers to understand how populations change over time, including patterns of birth, mortality, migration and household composition. These insights support evidence-based planning, health system strengthening and the calibration of national statistical datasets

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.

"The inclusion of our first urban surveillance node marks an important evolution for SAPRIN. South Africa is experiencing rapid urbanization and understanding the health and demographic dynamics of both urban and rural populations is essential for responsive policy and planning. This dataset provides researchers with a unique national resource for studying population change over time," said Dr André Rose, Director of SAPRIN.

The dataset supports longitudinal analyses of key demographic indicators, including mortality, fertility, migration and population dynamics. Examples of mortality and crude birth rate trends from the four participating HDSS nodes are illustrated below.



