

Pregnancy Exposure Registry and Birth Defects Surveillance (PER) Project

Accurate tracking of birth defects and analysis of related data enables a deeper understanding of the potential causes of birth defects that can inform recommendations for prevention policies and services.

At the request of the KwaZulu-Natal Provincial Department of Health (KZN-DoH), HST has been contracted by the University of the Witwatersrand Reproductive Health and HIV Institute (Wits RHI) to support the Pregnancy Exposure Registry and Birth Defects Surveillance (PER) Project from April 2021 to October 2025.

This national project is funded by the Bill & Melinda Gates Foundation and the US Centers for Disease Control and Prevention (CDC), with the aim of strengthening the collection of health information from the maternal case records of pregnant women and their infants in order to support assessment of the impact of medicines and vaccines on birth outcomes and pregnant women.

The work requires co-operation across provinces and shared implementation strategies, and provides opportunities for national health systems strengthening in support of maternal and child health.

Conducted in partnership with the KZN-DoH, the University of KwaZulu-Natal (UKZN), and Columbus Consulting, HST's support focuses on the development and management of the KwaZulu-Natal Pregnancy Exposure Registry database, ensuring that it is aligned with the Pregnancy Exposure Registry (PER) requirements and is interoperable with provincial health information systems.

Otherwise known as 'Ubomi Buhle', this project is aimed at improving our understanding of exposures during pregnancy – such as to

medicines, substances and diseases – that can result in poor birth outcomes like birth defects, low birth weight, stillbirth, premature birth, and neonatal death.

'UBOMI BUHLE' is an acronym for the project and its intention of 'Understanding Birth Outcomes for Mothers and Infants, Building Healthcare by Linking Exposures'.

Together with UKZN and the DoH, HST is implementing Ubomi Buhle at three selected sentinel surveillance sites in KwaZulu-Natal, linked to two referral hospitals, namely Inkosi Albert Luthuli Central Hospital and Prince Mshiyeni Memorial Hospital.

The project employs a series of health system strengthening approaches to monitor the impact of targeted obstetric, therapeutic and clinical interventions, as well as infectious and/or environmental exposures in pregnancy on adverse maternal and birth outcomes.

HST's support entails secondment of critical staff for the KZN project, and providing health systems strengthening through co-ordinated training, benchmarking and sharing of good practices for the national project to scale up identified learning and improvement.

HST's involvement in the surveillance of birth defects is aimed at improving pharmacovigilance during pregnancy and breastfeeding to enhance knowledge on the outcomes for babies born to mothers on HIV treatment in a structured medico-pharmacological study. HST's participation in this study will enable improved analysis of data associated with dolutegravir (DTG) safety monitoring.