## THE GAMBIA HEPATITIS INTERVENTION STUDY (GHIS)

**Group head**Dr Ramatoulie Njie

**Acting head of cancer registry** Mr Lamin Bojang

**Trainee hepatologist** Dr Sheikh Omar Bittaye

Tumour registration officers
Mr Yusupha Bah
Mr Ebrima Bojang
Mr Modou Musa Sisawo
Mr Lamin Sanneh

**Data entry clerk** Ms Mariatou Rahman

**PA/administrator** Ms Mama Cham The Gambia Hepatitis Intervention Study (GHIS), now in its third decade, is a collaborative project undertaken by IARC, the government of the Republic of The Gambia, and the Medical Research Council (MRC), United Kingdom. GHIS was initiated in 1986 to evaluate the effectiveness of hepatitis B virus vaccination in childhood for the prevention of infection, chronic liver disease, and hepatocellular carcinoma in adulthood in a high-risk population. Led by the Director's Office, GHIS is a high-profile project of the Agency. At the beginning of GHIS, a population-based National Cancer Registry (NCR) was established. Cancer cases are identified through public health facilities and private clinics.

Dr Ramatoulie Njie, the hepatologist managing the project, together with a team of tumour registration officers, carries out enhanced surveillance of chronic liver disease and cancer in hospitals and health centres around the country. She is assisted by a junior

doctor from the local Edward Francis Small Teaching Hospital (EFSTH), who has been seconded to the MRC liver clinic and is trained in ultrasonography and liver biopsy techniques. Suspected cases of liver cancer are assessed by ultrasonography, by quantitative α-fetoprotein assays, and, in many cases, by histological confirmation from liver biopsy samples. Histopathology reporting is carried out by two independent pathologists: in The Gambia by Professor O. Khalil at EFSTH and in Lyon by Dr Behnoush Abedi-Ardekani at IARC. All confirmed cases of liver cancer are recorded in the NCR, and cases of chronic liver disease are recorded in a linked database.

Dr Freddie Bray, head of the Section of Cancer Surveillance (CSU) at IARC, together with Mr Morten Ervik, IT development manager in CSU, made a comprehensive site visit to The Gambia on 10–13 March 2015. All major health facilities and sources of data capture were visited. An on-site training

programme was held for the tumour registration officers, and a number of recommendations were made about measures to improve the quality of the NCR to the highest possible standard. These measures are currently being implemented and are expected to improve the identification of liver cancer cases and enable record linkage to the vaccine trial database.

The statistical analysis plan for GHIS was discussed at a special one-day meeting held at IARC in Lyon on 13 April 2015. The meeting was attended by Professor Hazel Inskip of the MRC Statistical Epidemiology Unit at the University of Southampton (United Kingdom) and Sir Andrew Hall, formerly of the London School of Hygiene & Tropical Medicine (United Kingdom), both of whom were instrumental in setting up the project three decades ago. A series of action points were detailed, and these are also being implemented.