electroencephalogram and computer tomography suggestive of encephalitis, over one year. In these patients, VE was if CSF cell count was <1000 cells/mm³ (lymphocyte predominance) and absence of non-viral pathogens in the CSF or blood. BM was CSF cell count >1000 cells/mm³ (polymorph predominance) and CSF protein >0.45 g/L and CSF/plasma glucose $<40\%$, and/or positive Gram stain and/or bacterial culture. JE was VE with ≥ 40 units of anti JE-IgM in the CSF and/or serum. All CNS infections were defined as, suspected cases by treating clinician with or without fever with LP showing CSF cells $>4/\text{mm}^3$.

Results Out of 38, bacterial meningitis was found in 47%, JE 21% and other causes in 32%. Although WHO definition of AES was not significantly associated with all CNS infections (p-value = 0.069), it was significantly associated with VE (p-value ≤ 0.001 , sensitivity 74%, specificity 93%, PPV 94%, NPV 70%) and BM (p-value ≤ 0.001 , sensitivity 30%, specificity 7%, PPV 33%, NPV 6%). Likewise, CSF criteria (cytology and biochemistry) for diagnosing JE was significantly associated with confirmed diagnosis of JE (p-value = 0.001).

Conclusion We validate WHO AES definition of BM and VE and CSF cytology and biochemistry analysis for the diagnosis of JE, as a significantly useful screening tool for children with these diseases specially in resource poor settings, endemic areas and confirmatory tests were not easily available.

G441(P) ABSTRACT WITHDRAWN

G443(P) TO EXPLORE THE POTENTIAL OF GEOGRAPHIC INFORMATION SYSTEM SOFTWARE (GIS) IN IDENTIFYING CHILDREN AT RISK OF MALNUTRITION AND EARLY NON-COMMUNICABLE DISEASES IN A DEPRIVED AREA OF MALAYSIA

¹ZAMH Zabidi-Hussin, ²SU Merni, ³CY Faris Irfan, ⁴MH Mohd Nazri, ⁵J Hazirah. ¹School of Medicine, International Medical University, Kuala Lumpur, Malaysia; ²Malaysia Space Agency, Kuala Lumpur, Malaysia; ³School of Medical Sciences, Universiti Sains Malaysia, George Town, Malaysia; ⁴School of Health Sciences, Universiti Sains Malaysia, George Town, Malaysia; ⁵International Islamic University, Selayang, Malaysia

10.1136/archdischild-2020-rcpch.382

Methods The Geographic Information System software (GIS) is a software that is capable of analysing various geographic data and link them to environmental, socio economic, malnutrition and other health factors which could predict future non-communicable diseases (NCD) in adulthood. To reduce the future burden of NCD, we need to identify these children at risk in the hope that early prevention and intervention strategies would decrease its prevalence.

In 2013, a pilot study involving an interagency research group was formed, to map the location of malnourished children in one of the most deprived districts in Malaysia. A Growth Monitor software was created to capture anthropometric data for children below the age of 5 years, seen in all the health clinics in the districts. The data was used to map the location of the children and entered into the Geoinformation Software (GIS) where factors such as soil fertility, land use changes; soil moisture and flood prone areas were

combined with remote sensing data to produce a malnutrition risk map for the region.

Results A risk-map pictorial image ironically indicated that most of the malnourished and children at-risk resided in the most fertile areas of the districts, but the land was minimally used for agriculture. The research also discovered that even though these children had access to protein-rich fish, these were exported to nearby country in exchange for cash which were used for entertainment purposes.

The use of GIS has been shown to provide a very clear overall view of risks of malnutrition in children and has the capability to track these children at risk with time, enabling earlier intervention to prevent future risks of NCDs.

G444(P) ABSTRACT WITHDRAWN

G445(P) EXPERIENCES OF ACCESSING HEALTH CARE FOR LOW BIRTH WEIGHT INFANTS AMONG CARE GIVERS AND HEALTH CARE PROVIDERS IN HOMA BAY COUNTY OF WESTERN KENYA

^{1,2}SE Unsworth, ³F Were, ^{1,3}HC Barsosio, ³D Juma, ^{1,3}HM Nabwera. ¹International Public Health, Liverpool School of Tropical Medicine, Liverpool, UK; ²Medical School, University of Liverpool, Liverpool, UK; ³Centre for Global Health Research, Kenya Medical Research Institute, Kisumu, Kenya

10.1136/archdischild-2020-rcpch.383

Aims To explore the experiences of accessing care for low birth weight (LBW) infants in rural Kenya, in order to identify the barriers and facilitators to support the development of interventions to improve outcomes of these infants in rural Kenya and other similar settings.

Methods Qualitative research using in-depth interviews. Purposive sampling was used to identify participants with experience of caring for a LBW infant in Homa Bay County, Kenya. These included primary caregivers of LBW infants who had recently been discharged from the New-born Unit at Homa Bay County referral hospital and health care providers in both primary and secondary level health facilities within the County. The interviews were held at the Homa Bay County hospital, conducted in either English, Dholuo or Swahili by an experience research assistant and were audio recorded. They were transcribed verbatim and the non-English transcripts were translated to English. A thematic approach was used to analyse the data.

Results Overall, carers and health care provider experiences focussed more on the barriers to accessing care for LBW infants in this setting. The key barriers were household deprivation, inadequate support networks for mothers of LBW infants, maternal psychological stress associated with having a LBW infant in the community, lack of knowledge about danger signs in LBW infants amongst caregivers, community and health care workers beliefs and attitudes about the poor outcomes of LBW infants and inadequate resources to provide care for LBW infants in the health system. The main facilitators were the information shared by health care providers in some of the antenatal clinics that empowered mothers to access care for their infants earlier and the support of