Methods This study involved a randomly selected cross sectional survey of 2,058 households. Data were collected during home visits to all resident women of reproductive age (15–49 years). A geographic information system (GIS) was used to map all households and the only health centre in the district. The analysis was restricted to 2,206 rural children who were under the age of five years during the five years before the survey. Data were analysed using random effects Poisson regression.
Results 90.4% (1,996/2,206) of children lived more than 1.5 hours walk from the health centre. Children who lived ≥1.5hrs from the health centre had a two–three fold greater risk of death than children who lived<1.5 hours from the health centre (children with travel time 1.5–<2.5hrs adjusted relative risk [adjRR] 2.3[0.95–5.6], travel time 2.5–<3.5hrs adjRR 3.1[1.3–7.4] and travel time 3.5–<6.5hrs adjRR 2.5[1.1–6.2]).
Conclusion Distance to a health centre had a marked influence on under five mortality in a poor, rural, remote area of Ethiopia. This study provides important information for policy makers on the likely impact of new health centres and their most effective location in remote areas.

PS54 BIOMARKERS ASSOCIATED WITH MORTALITY IN A COMMUNITY BASED POPULATION WITH CARDIOVASCULAR RISK FACTORS: DATA FROM THE SCREENING TO PREVENT HEART FAILURE (STOP HF) STUDY

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Background The STOP HF cohort is an ongoing longitudinal study of 1,040 individuals with cardiovascular risk factors and no known ventricular dysfunction at baseline. The study is located in South Dublin and the Southeast of Ireland. This is an analysis of the deaths reported at the interim analysis conducted in January 2012 (mean follow-up, 4 years, range 3.5–7.0 years).
Methods Univariable analyses compared the profiles of survivors to those deceased. Logistic regression identified the foremost associates of death. Cox's proportional hazard models estimated the risk of death over time, considering the presence of certain factors.
Results Between January 2005 and April 2008 1,040 individuals were recruited into the STOP HF study (Mean age 65, 49% male, hyperlipidemia 53%, hypertension 47%, CAD 16%, MI 8%, arrhythmia 8%, diabetes 12%, smoker 14%). At the interim analyses 64 deaths were reported, (6.1% of the cohort). Univariable analyses indicated those deceased were older (65 vs. 71 years, p<0.0001) with lower diastolic blood-pressure (p<0.005) and a 17% greater prevalence of diabetes (p<0.0001). Those deceased had biomarker levels more frequently ≥75th percentile for gender in BNP (p<0.005), hsCRP (p<0.0001), Urea (p<0.005), Creatinine (p<0.0001) and ALP (p<0.05) and were more likely to be taking ACE inhibitor (p<0.02) and anti-diabetic therapy (p<0.0001). The final multivariable model identified age (ExpB=1.07, OR 1.03–1.11, p<0.0001), diabetes (ExpB=3.44, OR 1.96–7.00, P=0.001), BNP (ExpB=1.00, OR 1.000–1.007, p=0.075) and hsCRP (ExpB=1.07, OR 1.04–1.11, p<0.000) as associates of mortality (model $\chi 2(4, N=1041)=50.240$, p<0.001). Controlling for age, cox's proportional hazard models indicated that those with diabetes had a 3 times higher risk of death (ExpB=3.117, OR 1.801–5.304, p<0.0001); those with a hsCRP level ≥75th percentile for gender were almost 3.5 times more likely to die (ExpB=3.439, OR 1.995–5.498, p<0.0001) and those with ALP ≥75th percentile for gender were also more likely to die durin the follow-up period (ExpB=1.919, OR 1.096–3.359).
Conclusion Diabetes is associated with in excess of a 3 times increase in the likelihood of death over 4 years follow-up in this population, while other morbid conditions such as coronary disease and atrial fibrillation show no significant association. Despite aggressive cardiovascular risk management through primary and secondary prevention strategies, those with diabetes continue to have a poor prognostic outlook. Observation of biomarkers such as hsCRP and ALP may be of added value in monitoring cohorts with existing cardiovascular risk factors and identifying those that may be subclinically manifesting heightened risk of mortality in this setting.

PS55 THE USE OF A WEALTH INDEX WITHIN AN IMPOVERISHED COMMUNITY: A COHORT STUDY IN KWAZULU-NATAL, SOUTH AFRICA

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Background An index of wealth is widely used in national surveys to create economic profiles. We constructed such an index within a population-based cohort study of 1,788 preschool children and their primary caregivers living in five isiZulu tribal areas of KwaZulu-Natal, South Africa, an extremely poor area which remains at the epi-center of the South African HIV/AIDS epidemic.
Methods Study Design: Information on household assets, employment, household structure was obtained by door-to-door survey alongside a screen for child disability in developing countries. All children were invited to a structured medical and psychological assessment for disability and HIV status of child and primary caregiver. Wealth Index: A household asset index developed within our study population used many items identical to those in WHO DHS surveys, employing a principal components approach. Asset indicators were grouped into 3 categories: land ownership, ownership of consumer goods, and characteristics of household dwelling (building material, water sources, toilet facility, energy source, etc.). Factor analysis was performed: variables with zero variances and all variables with prevalence less than 2% were removed. The first component explained 16% of the variance and a KMO of 0.532. We ranked the factor scores on the first component in ascending order, standardized to a range of 0 to 4, and grouped into tertiles (1=lowest third, 2=middle third, 3=top third).
Results The wealth index gave information about study participation: Of 1788 children screened, children from households in the poorest third were significantly more likely to be brought to the assessment: 91% compared to 83 and 89 % in the middle and top third respectively. Significant differences in the wealth index were found between the five areas in the sample. With regard to caregiver responses about child disability, those in the poorest third were most likely to report that their child had a disability (43% compared to 46 and 49% - significant on test for trend). Though doctors found a lower rate of disability than reported by parents, there was no difference in disability or false positives rate by wealth index tertile. HIV seropositivity of caregiver varied by tertile (30.3%, 28.5% and 21.8 % in poorest, middle and least poor) but not that of children.
Conclusion Even within extremely deprived areas in a low or middle income country, a wealth index can assess comparative risk among groups suffering more or less material disadvantage and also provide important information in assessing possibility of selection bias in the findings.

PS56 RISK OF INTENTIONAL SELF-HARM IN YOUNG PEOPLE WITH SELECTED MENTAL AND CHRONIC PHYSICAL CONDITIONS IN ENGLAND

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