**Background**

There are few data on GFR in African populations. The incidence of Type II diabetes and obesity and possibly hypertension, is rising in many parts of Africa so it is important to have robust data, especially serial data.

**Methods**

2002: as part of a Wellcome Trust funded study on blood pressure and salt intake in 1,013 adults aged 40-75 years, measurements were made of creatinine and GFR. GFR was calculated by CKD-EPI with and without adjustment for Black ethnicity as we have previously shown in this population that by omitting the adjustment [i.e. 'White' ethnicity] the eGFR is closer to measured creatinine clearance.

2014: a survey showed that 265 of the original participants had died. Of the 748 still living, 259 agreed to participate in the follow-up study, a recruitment rate of 35%. The residents of one village declined to participate [57 potential participants], and many other potential participants had migrated to other parts of Ghana and elsewhere**.**

**Results**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sex | Visit | Age | Weight | BMI | Creat | CKD-EPI eGFR | SBP | DBP |
| 'Black' | 'White' |
| Female | 2002 | 50 | 50.0 | 20.7 | 70 | 101.9 | 84.3 | 112.8 | 70.0 |
| 2014 | 62 | 53.5 | 21.8 | 71 | 88.3 | 72.8 | 135.3 | 75.8 |
|  | p= |  |  | <0.001 | 0.44 | <0.001 | <0.001 | <0.001 | <0.001 |
| Male | 2002 | 50 | 58.0 | 20.3 | 89 | 102.9 | 85.1 | 118.5 | 73.0 |
| 2014 | 62 | 58.5 | 20.2 | 91 | 88.1 | 72.7 | 137.5 | 77.0 |
|  | p= |  |  | 0.55 | 0.15 | <0.001 | <0.001 | <0.001 | <0.001 |

In this survivor cohort , while serum creatinine was unchanged, eGFR fell by around 10mL/min/decade, similar to that described for other apparently healthy adult populations. The rise in systolic blood pressure of around 20 mm Hg over this period of 12 years is striking, particularly as the majority had been normotensive 12 years earlier. The increased prevalence of hypertension may be a factor in or a consequence of the decline in GFR.