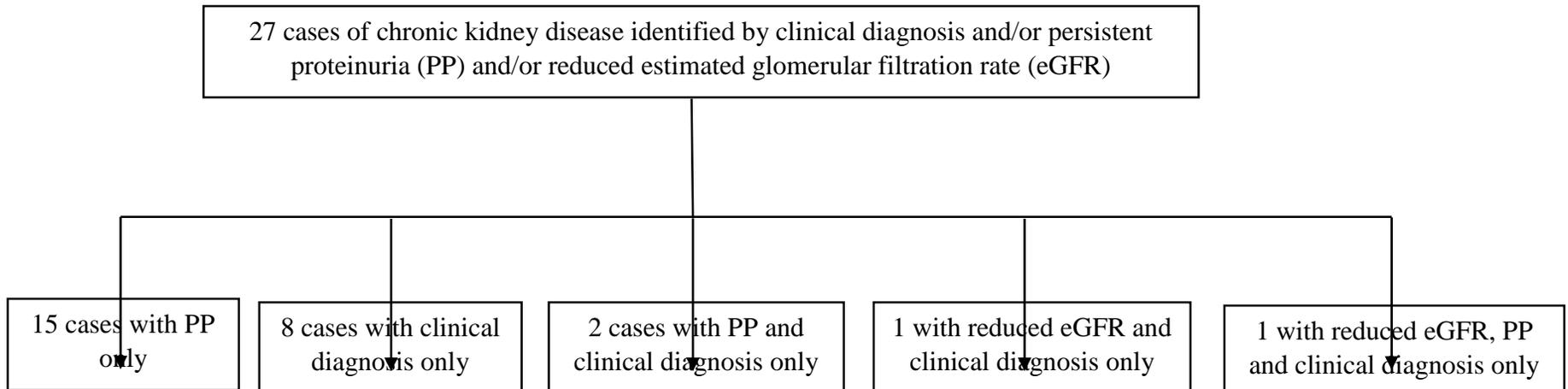


Supplementary Material 1

Comparison of area under the curve HIV viral load between chronic kidney disease cases and comparison control cases

Given the variability in viral load availability by age between cases and controls, area under the curve (AUC) viral load could not be directly compared by case status. Therefore age intervals with “acceptable” viral load data (i.e., intervals with consecutive viral load measurements available within 13 months of one another) were identified for cases with at least five viral load readings available. Similar intervals of “acceptable” viral load data were identified for each control and all controls with overlapping and matching intervals were then selected for each case. AUC viral load within these matching intervals was calculated using the trapezoidal rule and differences in AUC viral load between each case and set of matching controls were then calculated. To account for the correlation due to the reuse of controls for different cases, a weighted generalized estimating equation model with an independent working correlation structure was used to determine the 95% confidence interval around the average difference in AUC viral load between cases and controls.

Figure. Breakdown of the cases of chronic kidney disease identified in the Adolescent Master Protocol



Supplementary Material 2

Table 1. Distribution of African ancestry among children and youth with perinatal HIV infection followed in the AMP cohort, by self-reported race and ethnicity, N = 428.

| Self-reported Race and Ethnicity | N | Proportion of genetically-determined African ancestry | | |
|----------------------------------|-----|---|-------------------|------------|
| | | Mean (SD) | Median (Q1, Q3) | Min, Max |
| White, Non-Hispanic | 26 | 0.04 (0.08) | 0.01 (0.01, 0.03) | 0.01, 0.42 |
| White, Hispanic | 67 | 0.15 (0.18) | 0.06 (0.02, 0.24) | 0.01, 0.85 |
| Black, Non-Hispanic | 292 | 0.73 (0.17) | 0.76 (0.69, 0.84) | 0.02, 0.96 |
| Black, Hispanic | 17 | 0.40 (0.29) | 0.36 (0.21, 0.57) | 0.01, 0.92 |
| Other, Non-Hispanic | 4 | 0.02 (0.01) | 0.02 (0.01, 0.03) | 0.01, 0.04 |
| Other, Hispanic | 1 | | 0.06 | |
| Unknown, Non-Hispanic | 1 | | 0.12 | |
| Unknown, Hispanic | 19 | 0.17 (0.22) | 0.08 (0.02, 0.26) | 0.01, 0.80 |
| Unknown Race and Ethnicity | 1 | | 0.02 | |

Figure. Distribution of ancestry proportion that is African among CKD cases and the comparison group

With increasing African ancestry proportion, there was increase in percent of participants with chronic kidney disease that peaked at 70-80% proportion African ancestry, while control participants were randomly distributed across proportion African ancestry. The figures above each bar represents the number of participants in that category. All 27 CKD cases and 196 control participants had African ancestry data.

