**S1 Appendix**

**Formula for Calculating Sample size**

At least 96 adults with classifiable HIVDR outcome by 12 months of follow-up were required to give an estimate of the proportion of adults with viral suppression at 12 months and a 95% confidence interval of +/-10% irrespective of the incidence of viral suppression at each monitoring site. Estimating a prevalence of the outcome of 50% provided the biggest sample size determination for a given precision. This was obtained based on the formula for sample size assuming a Normal distribution and ignoring the finite population correction i.e.:

*z2 \* (p \* (1 - p))   
n = -------------------   
           e2*

To estimate an unknown proportion within 0.1 (i.e. 10%) of the true population proportion with a probability of 95% (i.e. *α* = 0.05):

1.962 \* (0.5 \* (1 - 0.5))   
n = --------------------------   
              0.12

3.8416 \* 0.25   
n = -------------   
        0.01

n = 96

The formula without the finite population correction, provided a sufficient survey sample size regardless of clinic size. Additional clients were enrolled to take into account the numbers that were likely to transfer out, die or get lost to follow-up during 12 months of follow-up, which was approximately 30% of clients. Therefore, 138 adults, (rounded off) to 140 clients were enrolled at each monitoring site.