1) Drug regimens associated with K65R selection

- K65R mutation present in 144 patients (5.2%, CI: 4.5 - 6.2)
- 110 patients (76%) received TDF at time of detection, other NRTIs were 3TC (34%), FTC (32%), ddI (31%), ABC (14%), d4T (12%) and AZT (8%)
- Dual NRTI combinations (90%) were more accompanied by a NNRTI (84%) compared to a PI (15%) (p-value < 0.01)
- TDF/ddI and TDF/FTC accounted for most K65R cases

2a) Impact on K65R selection at the population level

- The population rate of K65R reflects the interplay between the prevalence of regimens among patients failing cART (Failing Rate, FR)
- The proportion of K65R cases selected by each regimen (Selection Rate, SR) (Table 1)
- Experience with TDF among 2736 patients was high (41%) - continuous increase over time of patients failing cART including TDF, up to 60% and higher in 2010 (Figure 2a)

2b) Impact on K65R selection at the population level

- No clear increase in K65R incidence over time (Figure 2b)
- Persistent reduction in selection rate over time (Figure 2a)
- Explained by changes in the co-administration of TDF
- Increasing failing rate of widely used TDF/FTC (Figure 3)

3) Changing characteristics of patients showing K65R

- Co-occurrence of M184V increased up to 77% in 2010
- Major NNRTI mutations (K103N, Y181C) occurred in 67% of K65R cases with no clear trends over time
- Inverse correlation between K65R incidence trend and trend in AZT accompanying TDF (p-value = 0.039, r = -0.27)
- Time on therapy before K65R detection increased with 49 days with every additional calendar year (p-value = 0.003)
- No difference in K65R prevalence between subtype B (2.9%) and G (4.1%) (p-value = 0.24)