

## **APPENDIX F: HIV RESISTANCE**

### **INTRODUCTION**

HIV resistance can be broadly defined as any change in the virus that improves its ability to replicate in the presence of an antiretroviral drug. This resistance is always relative to the wild-type virus and is rarely absolute. In specific terms, HIV resistance is an altered phenotype resulting from a change in a viral genotype and can be measured both *in vitro* and *in vivo*.

*In vivo*, resistance is defined as failure of a drug to maintain viral suppression in a treated individual. This is identified by a rising viral load when available, otherwise by a falling CD4+ T count, and may be associated with phenotypic and/or genotypic evidence of drug resistance.

A more detailed review of HIV resistance, as well as an online algorithm for interpretation of genotypic resistance assays, can be found at <http://hivdb.stanford.edu>.