

## Resistance Testing

One of the key concerns with lifelong antiretroviral treatment (ART) is the potential development of drug resistance. One of the commonest ways this happens is when a patient does not take their ARVs every day, as prescribed. This is particularly problematic in children and teenagers for a number of reasons, such as intolerance of medications with a bad taste, difficulty swallowing large tablets or lack of disclosure or understanding about HIV. If resistance develops, then the patient needs to be put on a different ARV regimen. Drug resistance testing enables clinicians to make informed decisions about which type of ARVs are still effective and thus would be most suitable for a particular patient.

During the last years, more and more new-born babies and older children develop resistance to the antiretroviral drugs provided for free by the Government. HOPE Cape Town was able to stand in the gap to provide resistance testing when it was unavailable through the government clinics. HOPE Cape Town supported the government health system from 2011 to 2016 with resistance testing for children.

Since 2016, the process of ordering a resistance test from the state sector has become significantly easier as it is more widely available through the National Health Laboratory System (NHLS). There are however strict criteria for getting a resistance test through the NHLS, so HOPE Cape Town will still fund resistance tests for patients who don't meet the NHLS criteria, but the need for these tests is now much less frequent. Although resistance testing is expensive, it provides invaluable information which allows doctors to make informed decisions about how best to proceed with treatment.

