POCT and rapid testing are becoming more and more utilized in screening for HIV. They have advantages in that they provide an answer with a rapid turnaround time; they indirectly provide the patient with their HIV serostatus and have applications external to the laboratory. These tests are good as screening tests for HIV and have a high degree of sensitivity but not very specific resulting in associated false positives. POCT lends itself particularly to areas and regions with minimal or reduced access to cold chain or central labs, thus the HIV POCT circumvents the need for centralized testing in areas of the developing world. Feasibility studies on the use of POCT in emergency and out-of-hour care facilities in the US reported an increase of 0.6-6.4% of HIV detection rates. Currently up to 4% of American hospital Emergency departments utilize HIV POCT routinely. The most beneficial application of POCT is to the developing world where its use is the most economically viable and logistical. Pilcher C D et al (2013) Stekler J D et al (2009)

**Figure 3:** this is an example of HIV POCT. This particular model is a combination assay detecting HIV p24 antigen and anti-HIV IgG Ab.

**Lab measures/ Biomarkers of Cardiovascular disease:**

In the prediction of the chance of developing Cardiovascular disease specific substances found in blood are measured. The substances measured provide the Clinician with many indications of the risk of developing Heart disease or whether heart failure has occurred in the individual being tested. ([www.Mayoclinic.org](http://www.Mayoclinic.org) 2014). What is known as lipid profile (Cholesterol test) is performed typically for cardiovascular disease testing. The lipid profile is composed of a measurement of a few lipids including; Total cholesterol, Low Density Lipoprotein Cholesterol (LDL-Cholesterol), high density Lipoprotein Cholesterol (HDL Cholesterol) and Triglycerides. Total cholesterol should
suitable vaccine type is developed for HIV the model of ‘Herd Immunity’ cannot be applied to the HIV epidemic.

Thus combination intervention strategies provide the most viable option in curtailing the spread of the virus. Combination intervention programs consider factors specific to each setting, e.g. levels of infrastructure, local culture and traditions as well as populations most affected by HIV. Combination prevention programs can be implemented at the individual, community and population levels and its use is recommended by UNAIDS. Targeting at risk populations with education, challenging practices and behavior types that increase HIV transmission and providing appropriate biomedical intervention schemes for these patients is the best method to date in halting the epidemic. UNAIDS (2013)

Figure 4: demonstrates the various interventions that would help prevent the spread of HIV

HIV is linked to human behavior and its spread is associated with risky practices and behaviors, by far the most common is sexual practices that increase transmission. Sexual practices whether they are for gratification or monetary (prostitution) reason and IV drug abuse constitute the highest risk factors and so often these practices are intermingled. UNAIDS (2013) WHO (2014b) As these are reward practices (psych) and provide gratification to the individuals, changing these particular habits is difficult but could be modified to safer alternatives if they so wished to continue in those practices. Interestingly there is a changing attitude towards HIV in the west, individual report the disease as being a chronic ailment as opposed to the deadly disease that it once was and can be easily treated