A Smartphone Application to Improve Adherence to Antiretroviral Therapy

Rationale

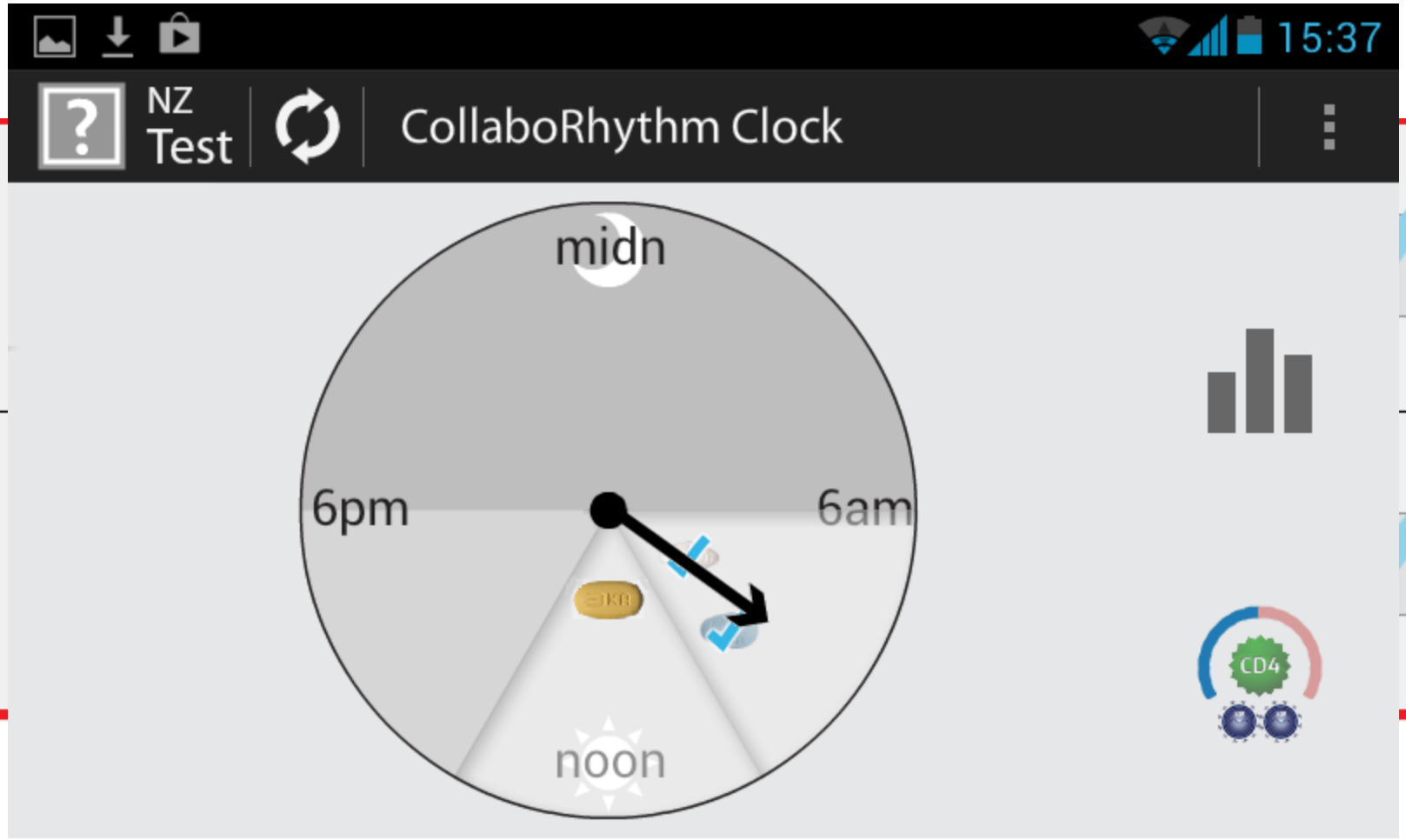
- Adherence to ART a significant issue
  - Severe consequences of non-adherence
  - Suboptimal adherence to ART common (38-71%)

- Existing mobile interventions mainly focus on the 'forgetfulness' aspect of non-adherence

- Visual information can be used to improve understanding of:
  - HIV infection
  - Mode of action of ART

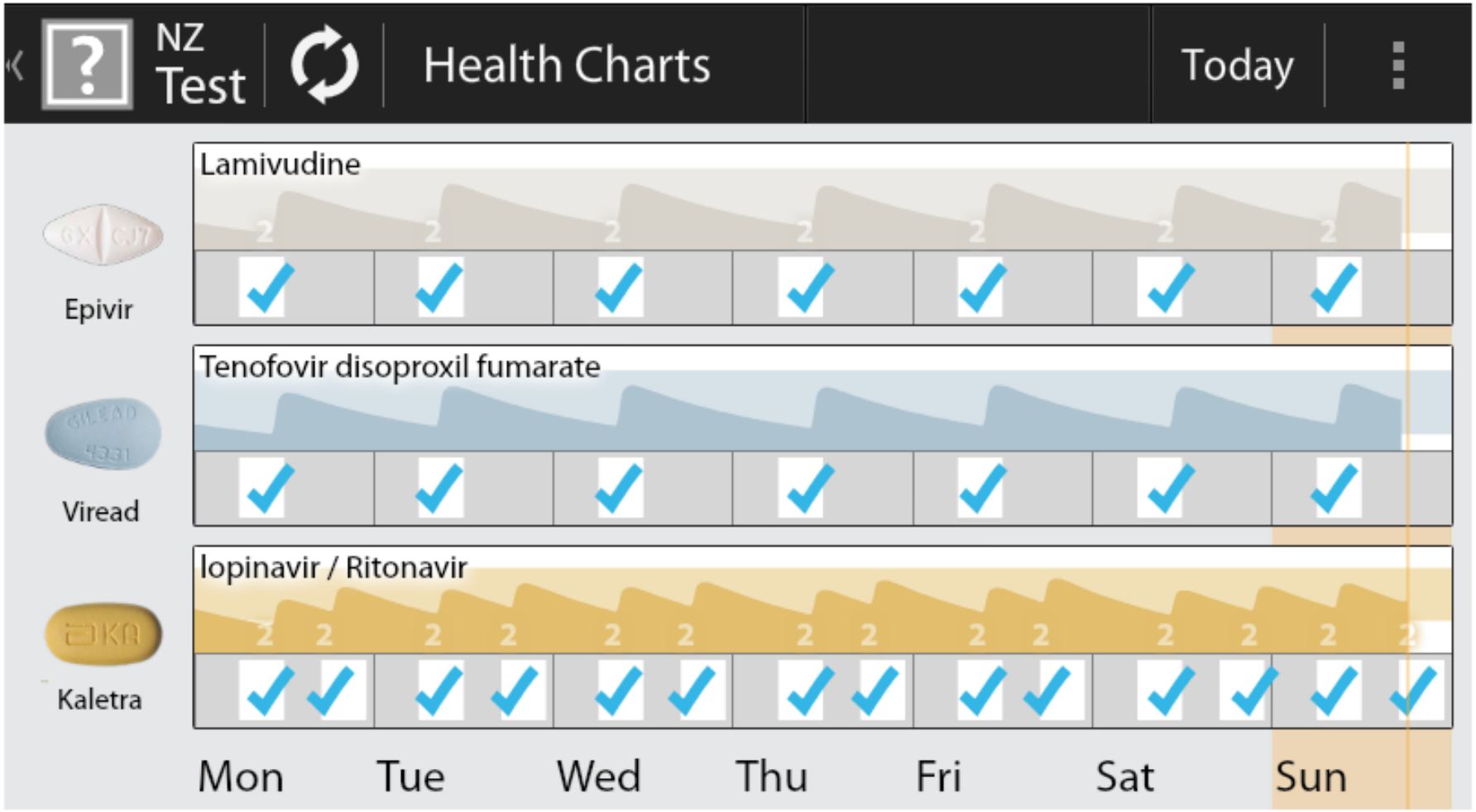
Smartphone Application

Component 1. – Daily medication clock



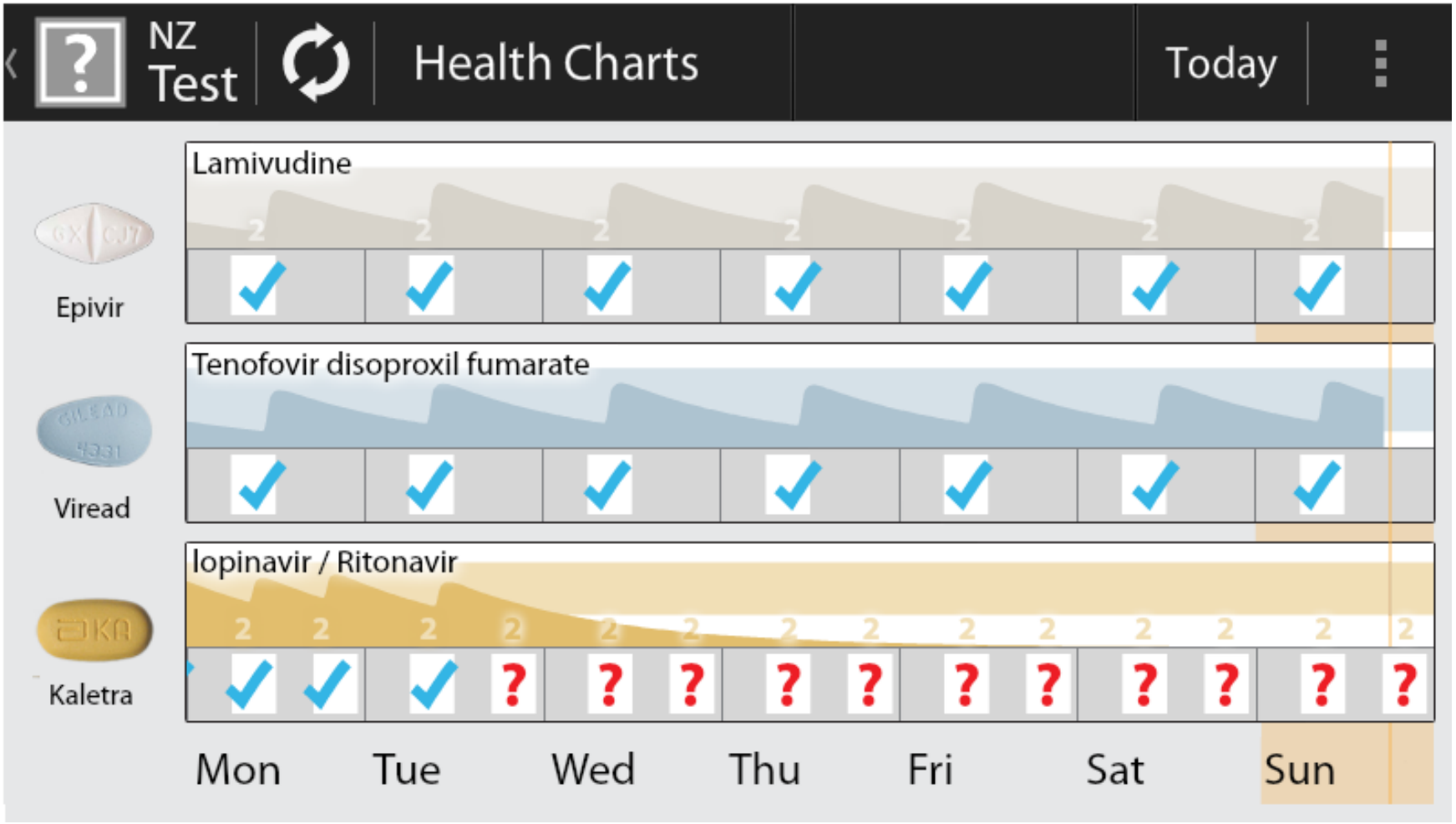
Component 2. – Health Charts

a)

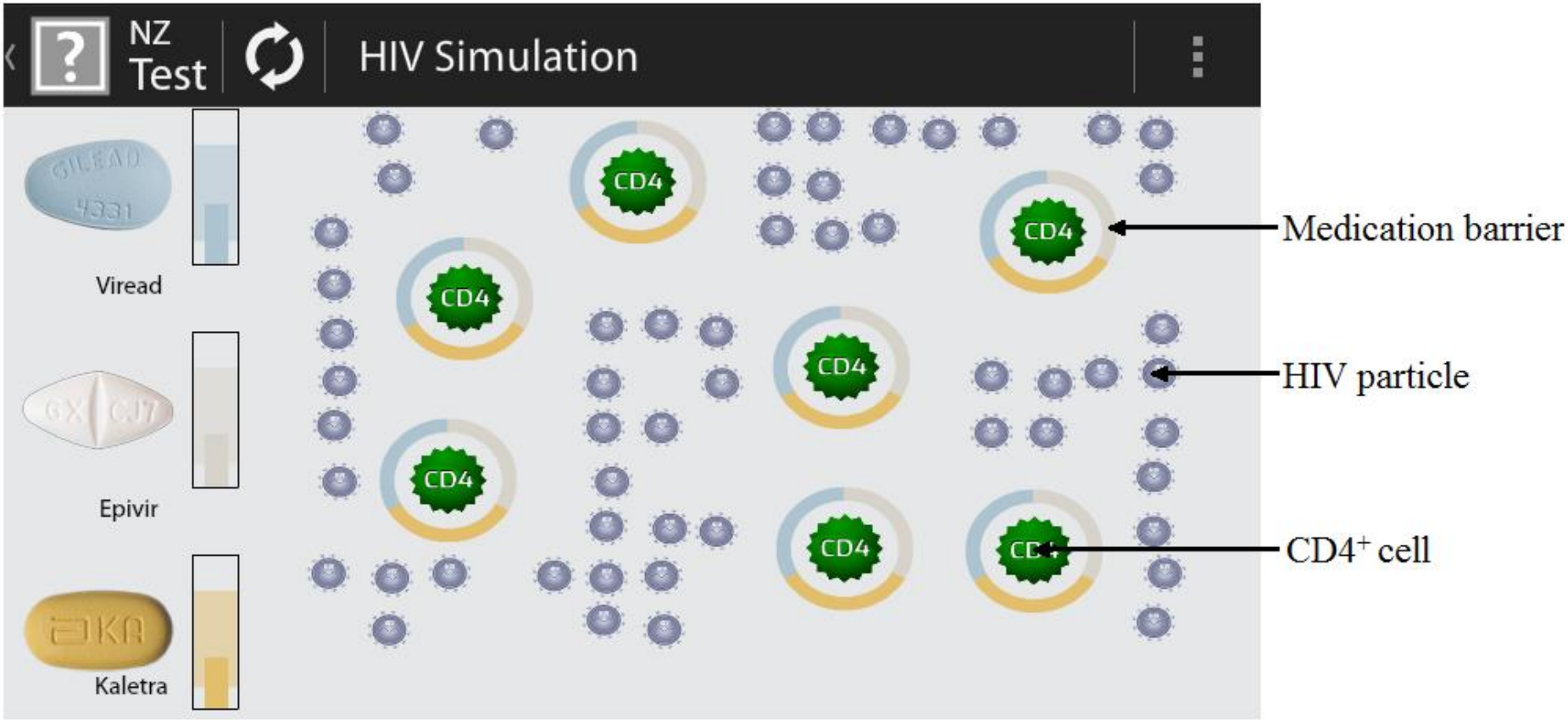


Component 2. – Health Charts

b)



Component 3. – HIV Simulation



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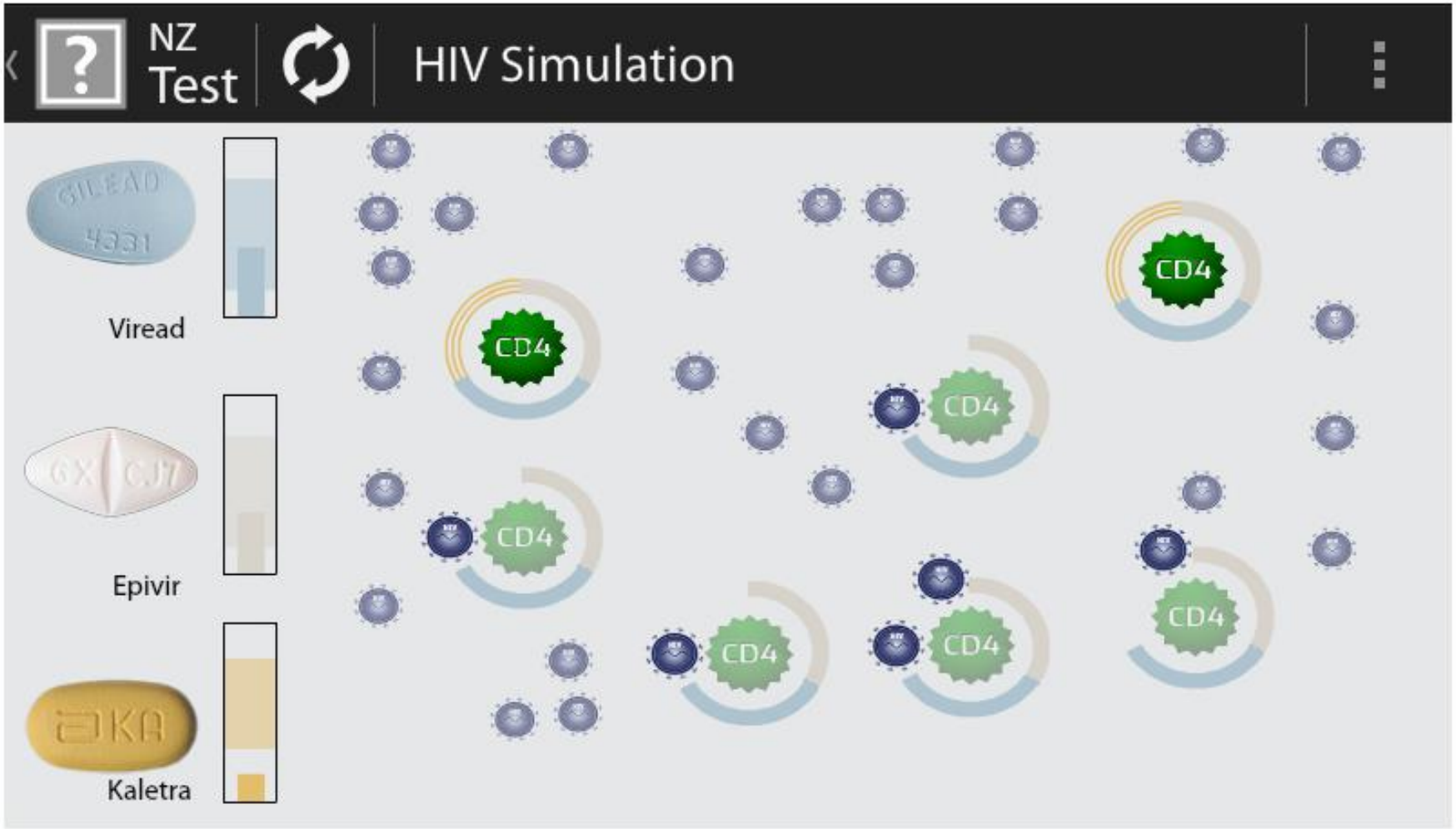
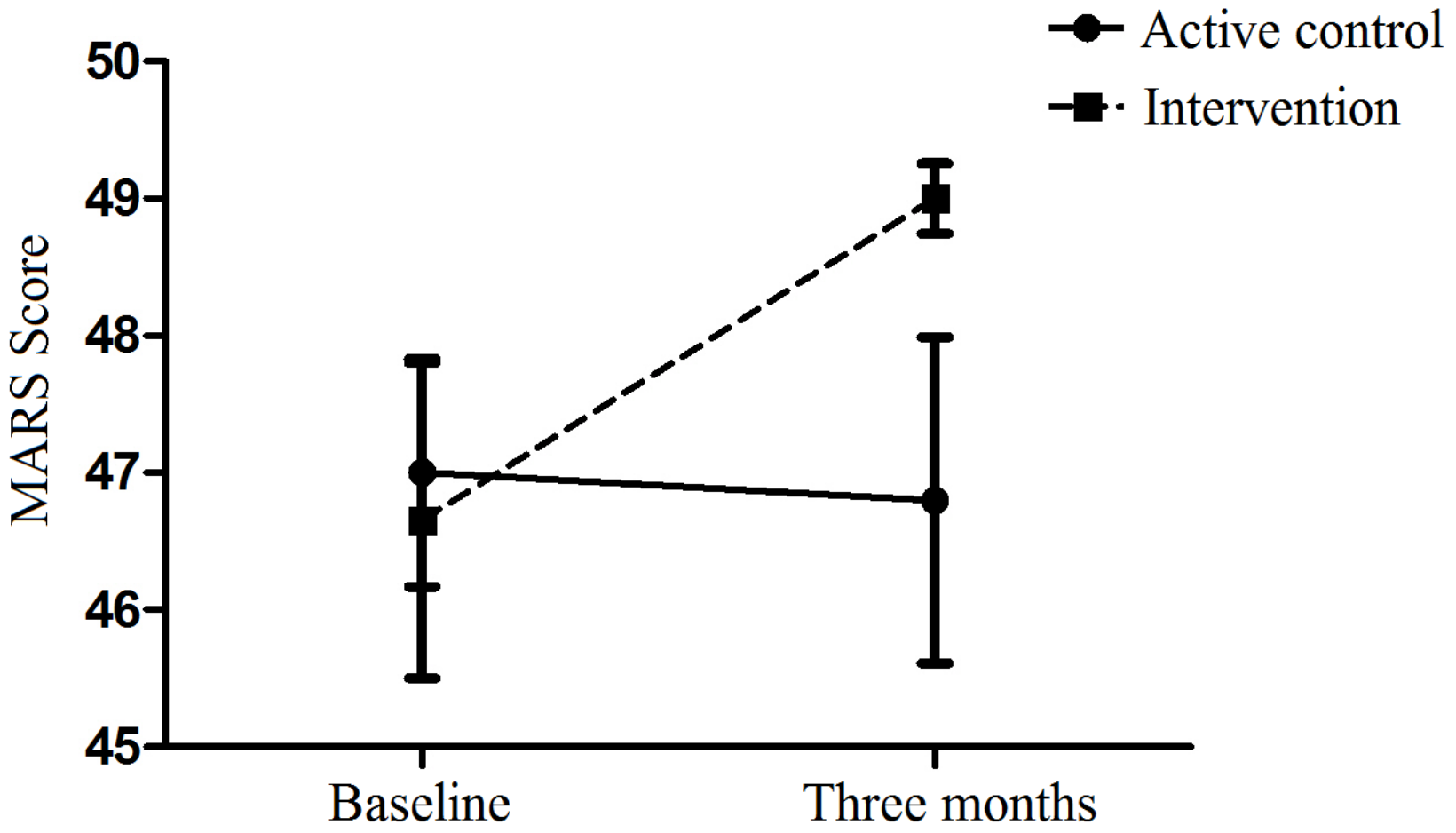


Study at Auckland City Hospital

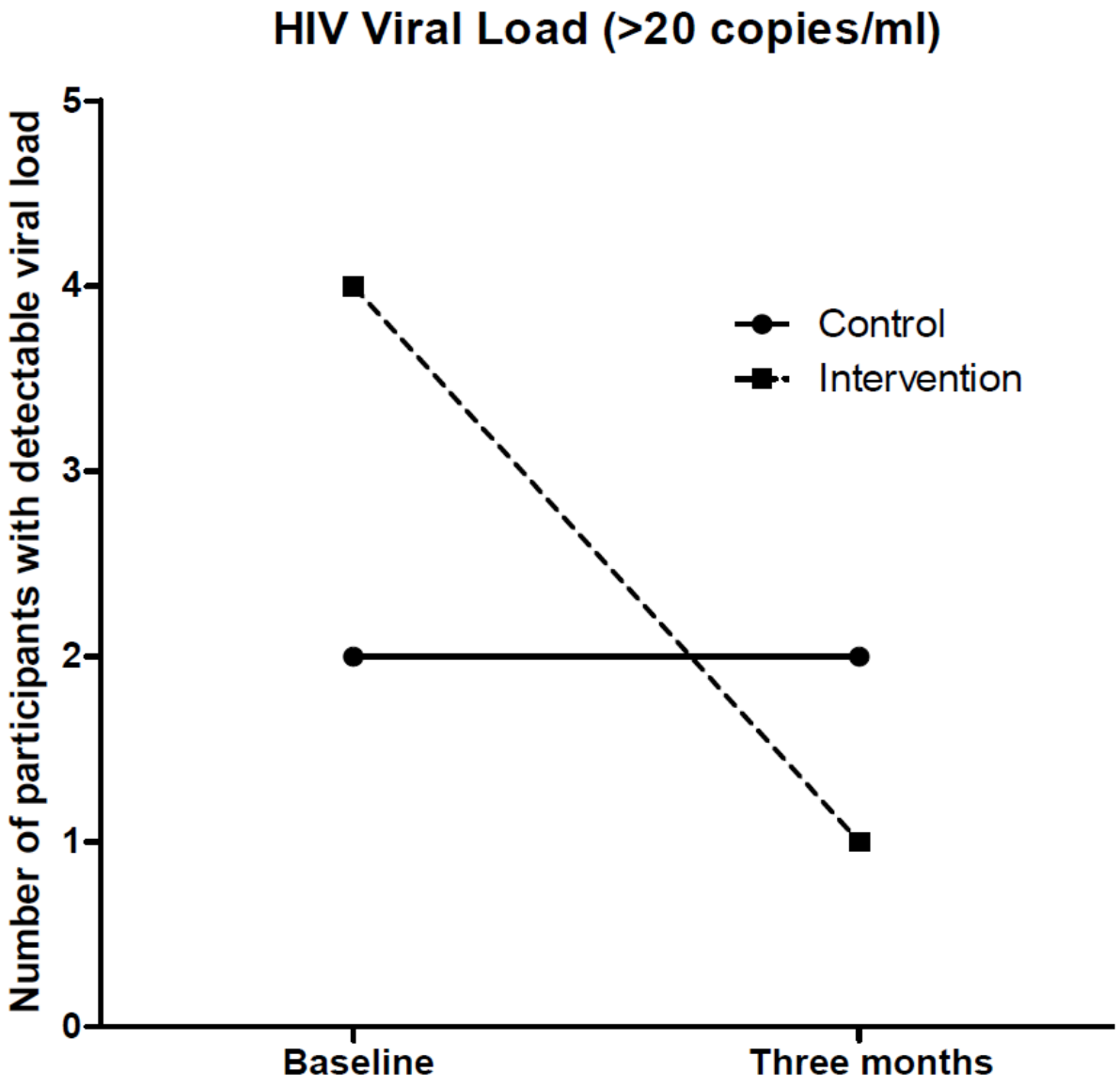
- 28 participants
- Active control group (n = 12)
  - 24 hour medication clock
- Intervention group (n = 16)
  - 24 hour medication clock
  - Health charts
  - HIV simulation
- All participants asked to use their respective application for three months

Outcomes - Adherence

- MARS scores:



Outcomes - Adherence



Outcomes

Perceptual Factors

- Increased understanding of HIV infection
- Stronger beliefs in the need for ART

Feedback

- Visually appealing
- Informative
- Easy to use, discrete
- Alarm function
- Most useful for people who are non-adherent