**Figure 2: Hypothesised effect of HIV infection on respiratory function (adapted from reference 20) (A), bone mass (adapted from reference 46) (B) and muscle strength (C) across the life-course**

**A**

**Respiratory symptoms**

**FEV1 (% normal level at age 20 years)**

HIV-ve

HIV+ve
(reduced lunggrowth)

HIV+ve
(prematuredecline)

**0**

**10**

**20**

**30**

**40**

**50**

**60**

**70**

**80**

**Age (years)**

**I. Early Life**

**II. Adult Life**

**III. Older Life**

**B**

**Bone mass (g)**

HIV-ve Male

**I. Early Life**

**II. Adult Life**

**III. Older Life**

HIV+veMale

HIV-ve Female

HIV+ve Female

**Fracture
risk window**

*Peak Bone Mass (PBM)*

**0**

**10**

**20**

**30**

**40**

**50**

**60**

**70**

**80**

**Age (years)**

**C**

**Grip Strength (kg)**

HIV-ve Male

**0**

**10**

**20**

**30**

**40**

**50**

**60**

**70**

**80**

**Age (years)**

**II. Adult Life**

**I. Early Life**

**III. Older Life**

**Reduced**

**physical performance**

HIV+ve Male

HIV-ve Female

HIV+ve Female

*Peak Muscle Mass*