the *Consolidated guidelines on HIV prevention, testing, treatment, service delivery and monitoring: recommendations for a public health approach, 2021 update (21)*.

3.3.2 Summary of evidence and rationale

ARV drugs play a key role in HIV prevention. People living with HIV who have an undetectable viral load and continue taking medication as prescribed have zero risk of transmitting HIV to their sexual partner(s). Furthermore, people living with HIV who have a suppressed but detectable (detected but ≤ 1000 copies/mL) viral load and are taking medication as prescribed have almost zero or negligible risk of transmitting HIV to their sexual partner(s) *(127)*.

TB among pregnant women living with HIV is associated with a 2.5-fold increased risk of vertical transmission of HIV *(128)*. ART during pregnancy and breastfeeding can effectively prevent mother-to-child transmission of HIV. ARV drugs taken by people without HIV as pre-exposure prophylaxis (PrEP) and post-exposure prophylaxis (PEP) are also highly effective in preventing HIV acquisition. Other key biomedical measures to prevent HIV transmission include provision of male and female condoms; voluntary medical male circumcision; and harm reduction services, such as needle and syringe programmes and opioid agonist maintenance therapy, for people who inject drugs *(21, 97)*. Behavioural interventions to prevent HIV include approaches to delivering targeted information and education about HIV prevention. Structural interventions aim to remove structural barriers to accessing services by addressing the social, legal and political environment that contribute to HIV transmission, for example by reducing stigma and discrimination, promoting gender equality and supporting economic and social empowerment.

It is essential to prevent transmission of HIV in healthcare settings through primary prevention measures such as standard precautions, injection safety, blood safety and safe waste disposal including of infectious and sharps waste, as well as through secondary prevention measures such as occupational PEP following needle stick injuries *(10)*. Facility management in each healthcare facility should ensure that there is a suitable segregation, transport and storage system for waste management in place and that all staff adhere to these procedures, in accordance with standardized national systems for healthcare waste management *(129)*. Details on safe management of healthcare waste are outlined in *Safe management of wastes from health-care activities: a summary (129)*.

WHO has defined five key populations who are at higher risk of acquiring HIV: men who have sex with men, sex workers, people in prisons and other closed settings, people who inject drugs and trans and gender diverse people *(30)*. Members of these populations are often at elevated risk of also acquiring TB, depending on the context, regardless of HIV status. Guidance specific to these key populations can be found in the WHO *Consolidated guidelines on HIV, viral hepatitis and STI prevention, diagnosis, treatment and care for key populations (30)*, as well as the consolidated guidelines on *Integrating collaborative TB and HIV services within a comprehensive package of care for people who inject drugs (97)*.