Supplementary Table: Differences between eliminating maternal and neonatal tetanus (MNTE) and eliminating vertical transmission of HIV.

	Maternal and neonatal tetanus (MNTE)	Vertical transmission of HIV
Cause	Non-communicable, toxin mediated disease caused by *Clostridium tetanii* bacteria found in soil and animal excreta. In developing countries women and their newborn infants are particularly vulnerable to contracting tetanus during or soon after birth.[a]	Communicable disease caused by HIV, a ribonucleic acid retrovirus that integrates with host cells, particularly CD4+ T lymphocytes
Transmission	Contamination of unhygienically cut umbilical cords	From mother to child during pregnancy, delivery, or through breastmilk[c].
Clinical features	Production of a potent neurotoxin causes neuromuscular spasms, 'lockjaw' and tetanus.	Children experience a significant rise in HIV viral load early, and progressive depletion of CD4+helper lymphocytes. This leads to acquired immunosuppression, which commonly manifests as respiratory disease in HIV infected or HIV exposed uninfected children
Course of the disease	Once the disease is contracted, the overall fatality rate can be as high as 100% without hospital care and between 10% to 60% with hospital care, and often occurs within 10 days.[b]	Mortality among untreated HIV infected infants is high, especially in the first year of life
Management:	Treatment is supportive in an intensive care setting and includes wound debridement, Tetanus immunoglobulin may reduce the duration of disease	Treatment of HIV infected children is with three antiretroviral drugs (ART), and a prophylactic antibiotic to prevent respiratory infections
Prevention	Safe delivery and cord care practices	Preventing HIV infections in young women; preventing unplanned or unwanted pregnancies in HIV positive women; early ART initiation in pregnant women to achieve viral suppression and care; treatment and support of HIV infected families
Elimination strategies[a, e]	One or more of the following: • Delivery by skilled birth attendance to ensure clean delivery practices • Immunisation of women during pregnancy with tetanus toxoid or tetanus diphtheria vaccine • Immunisation of women of reproductive age with tetanus toxoid or tetanus diphtheria vaccine in high risk areas • Surveillance for neonatal tetanus	Elimination is based on a broad four pronged approach: • Prevention of HIV among women of reproductive age within services related to reproductive health such as antenatal care, postpartum and postnatal care and other health and HIV service delivery points including working with community structures • Provide appropriate counselling and support, and contraceptives, to women living with HIV to meet their unmet needs for family planning and spacing of births, and to optimise health outcomes for these women and their children • For pregnant women with HIV, ensure HIV testing and counselling and access to ART to prevent HIV infection from being passed on to their babies during pregnancy, delivery, and breastfeeding • HIV care, treatment, and support for women with HIV and their children and families
Timing of adoption of criteria	1989	Criteria introduced in 2011-12 but guide released in 2014 and updated in 2017

Validation criteria for elimination[a, d]	**Impact indicator criteria:** Less than one case of neonatal tetanus per 1000 live births each year in all districts or similar administrative units of a country	**Impact indicator criteria:** • A new infection case rate* of ≤50 per 100 000 live births. • A vertical transmission rate of <5% in breastfeeding populations, and <2% in non-breastfeeding populations Both impact criteria should be achieved for one year in at least one of the lowest sub-national levels **Process indicator criteria:** • ≥95% antenatal care coverage (among all pregnant women); • ≥95% HIV testing coverage (among all pregnant women); and • ≥95% of antiretroviral treatment coverage among HIV-positive pregnant women. Each of these criteria should be achieved for two years in at least one of the lowest sub-national levels
Similarities between MNTE and elimination of vertical transmission of HIV	1. Both diseases cannot be eradicated (permanent reduction to zero with no subsequent interventions needed), so the aim is to eliminate disease to a low level such that it no longer poses a public health problem, with continued preventative interventions thereafter to maintain elimination 2. Mothers and newborn infants are most vulnerable and contribute to high burden of disease	
Differences between MNTE and elimination of vertical transmission of HIV	1. Strategies began almost 25 years ago 2. Depends on environmental hygiene, safe delivery practices, and maternal vaccination 3. Maternal immunity conferred by three tetanus toxoid vaccinations during pregnancy confers protection to the infant 4. Elimination strategies are built around environmental hygiene, immunisation and surveillance	1. Elimination of vertical transmission of HIV is a relatively new concept, piloted and adopted in 2011/12, with validation criteria released in 2014 2. Vertical transmission depends on: a. HIV prevalence in pregnant women and mothers and b. Strategies to reduce mother to child transmission of HIV during pregnancy, labour and delivery and breastfeeding including safe delivery practices 3. No vaccine exists to prevent mother to child transmission of HIV 4. Elimination of vertical transmission of HIV strategies are more complex than MNTE strategies, and are built around reducing HIV incidence, preventing unwanted pregnancy, administering appropriate antiretroviral drugs to mother and infant early and treatment and care of the entire family including retention in care

a: UNICEF, UNFPA, World Health Organisation. Achieving and sustaining maternal and neonatal tetanus elimination: strategic plan 2012-2015. Geneva: UNICEF; 2011.
b: Eliminating maternal and neonatal tetanus [Internet]. 2017 [cited 19 April 2017]. Available from: https://www.unicef.org/health/index_43509.html.
c: Kattan M, Zar H, editors. Respiratory disorders in Paediatric HIV infection. 8th ed. Philadelphia: Elsevier; 2012.
d: World Health Organisation. Global Guidance on Criteria and Processes for Validation: Elimination of mother-to-child transmission of HIV and syphilis. 2014.
e: UNAIDS. Global plan towards the elimination of new HIV infections among children by 2015 and keeping their mothers alive. Geneva; 2011.
* Case rate=100 000×maternal prevalence×vertical transmission rate