| **Author, Year** | **Type of study/location/setting/ high or low prevalence population (based on 0.1% prevalence rate)** | **Study dates/ duration of followup** | **Comparison groups** | **Baseline population characteristics for mother/baby** | **Eligibility criteria** |
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| Garcia-Tejedor, 200958 | Cohort Maternity hospital Spain Prevalence not reported | 1984-2006 Details not reported | ART during pregnancy: A: no treatment n=214 B: mono/dual therapy n=116 C: ART n=159 | Age, race, CD4 count, HIV stage not reported Before 1997, 27% of women received ART (mono/dual therapy)  After 1997, 91% of women received ART (77% with ART, 23% with mono/dual therapy) After 2002, ART was only therapy administered; 96% of women receiving treatment during pregnancy also received ART during delivery | HIV-infected pregnant women with attendance for prenatal care at least once at study obstetric clinic and/or delivery in maternity department between Jan 1984-Dec 2006 |
| Harris, 200757 | Cohort  United States surveillance data from areas that reported >60 HIV-positive women giving birth per year but prevalence not reported (sites represented 89% of all perinatal AIDS cases reported in 2003) | Births from 1999-2001  Infants followed up by health department every 6 months until HIV status determined  Analysis of surveillance data over study period | Prenatal ART regimes:  A: no treatment n=292  B: neonatal ART only n=359  C: intrapartum ART and neonatal ART n=322  D: prenatal ART and neonatal ART n=316  E: prenatal ART and intrapartum ART and neonatal ART n=6029 | Age at delivery (years): 13-19: n=509  20-29; n=3641  30-39: n=2652  >40; n=195  Race: White n=826  Black n=4887  Hispanic n=1224  Other n=60  CD4 count and HIV stage not reported | HIV-infected mothers and HIV-exposed infants born in 1999, 2000, 2001. Women known to be HIV-infected in pregnancy (tested before or at delivery), women not known to be HIV-infected in pregnancy but whose child tested positive for HIVAll infants born in or receiving care in project site |
| Tariq, 201159  See also Townsend, 200856; European Collaborative Study, 200593 | Cohort  Population surveillance data from the European Collaborative Study and the National Study of HIV in Pregnancy and Childhood  United Kingdom, Ireland, Belgium, Denmark, Germany, Italy, the Netherlands, Poland, Spain, Sweden  Prevalence not reported (rates of mother to child transmission in Europe and the UK declined from 20% in 1990s to <2% in "recent" years) | 2000-2009  Followup testing schedule not reported  Analyses of data over study period | Only antepartum treatment considered:  A: ZDV-containing ART n=6374  B: ZDV-sparing ART n=1199  About 30% of women were on ART at conception | Maternal age at delivery, years (n=7547); A vs. B, p<0.001:  <25; n=1072 (16.9%) vs. n=110 (9.2%)  25-29; n=1979 (31.2%) vs. n=257 (21.6%) 30-34; n=2006 (31.6%) vs. n=738 (61.7%)  >35; n=1293 (20.4%) vs. n=92 (7.7%)  Ethnicity (n=7550); A vs. B, p<0.001:  Black n=4974 (78.3%) vs. n=882 (73.8%)  White n=1086 (17.1%) vs. n=269 (22.5%)  Asian/other n=294 (4.6%) vs. n=45 (3.8%)  Baseline CD4 count, cells/mm3 (n=6993); A vs. B, p=0.14:  >500; n=1520 (25.9%) vs. n=316 (28.4%)  200-499; n=3427 (58.3%) vs. n=636 (57.2%)  <200; n=934 (15.9%) vs. n=160 (14.4%)  HIV stage: Not reported | All reported live singleton births to women who received ART for at least 14 days before delivery between 2000-2009 |
| Townsend, 200856 | Cohort  Population surveillance data from the NSHPC  UK, Ireland  Prevalence not reported (mother to child transmission rates in UK, Ireland fell from 20% to 2% between 1993 and 1998) | Births from 2000-2006 to women diagnosed before delivery and reported by June 2007  Followup testing schedule not reported  Analyses of data over study period | Only antepartum treatment considered:  Number at baseline/number in analysis  A: ART therapy n=4726/4120  B: Dual therapy n=136/126 C: Monotherapy n=712/638 D: None n=186/14324  1% (1075/4469) started ART before pregnancy | Age at delivery, median (years): 29.8 (IQR 26.2-33.6)  Race:  White n=775 (13.2%)  Black African n=4630 (78.8%)  Other n=470 (8.0%)  CD4 count:At least 0.500 x 109 cells/L n=1595 (35.1%)  350-499 cells/mL n=1158 (25.5%)  0.200-0.349 x 109 cells/L n=1241 (27.3%)  <0.200 x 109 cells/L n=545 (12.0%)  Clinical status: Asymptomatic n=4606 (89.7%)  AIDS or HIV-related symptoms n=528 (10.3%) | Singleton births between 2000 and 2006 to women diagnosed with HIV infection before delivery and reported to the NSHPC by June 2007 |

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| **Author, Year** | **Exclusion criteria** | **Number screened/ eligible/enrolled/ withdrawals/% analyzed** | **Breastfeeding rate/duration** | **Cesarean rate** | **Adjusted variables for statistical analysis** |
| Garcia-Tejedor, 200958 | Children with unknown serological status | 500 HIV-infected women (495 singleton births, five twins); 505 children delivered; 489 mother-child pairs analyzed (1 miscarriage, 11 stillborns, 2 perinatal deaths, 2 lost to followup) | Breastfeeding suppressed in all cases | Elective; n = 139/489  Emergency; n = 109/489 | Clinical outcomes of interest not adjusted |
| Harris, 200757 | None reported a priori for population Inadequate ART data excluded from analysis, missing data for other variables of interest excluded cases as appropriate for logistic regression models of interest | 8530 eligible; 7344 births with ART data (further excluded as per logistic regression models and outcomes of interest resulting in n=6997 and n=6974 for analyses) | Not reported | n=3678/6997 (elective or emergency not reported) | AOR=maternal age, race, prenatal care, timing of maternal HIV test, delivery type, site  AOR2=year of birth, maternal age, race, delivery type, site |
| Tariq, 201159  See also Townsend, 200856; European Collaborative Study, 200593 | Mother-child pairs lacking information on all 3 outcomes of interest  ECS excluded data from centers in the Ukraine (limited antenatal ART) and UK (to avoid duplication of cases reported to the NSHPC) | 7573 mother-child pairs analyzed (n=1263 from ECS, n=6310 from NSHPC) | Not reported | n=7488 with data  Elective; A vs B: n=3564 (56.5%) vs n=634 (54.0%)  Emergency; A vs B: n=1151 (18.2%) vs n=243 (20.7%) | AOR=OR adjusted for duration of ART, study, mode of delivery |
| Townsend, 200856 | Multiple births excluded  Children with unreported infection status excluded from analysis. Analysis performed using likely infection status to check for potential bias from excluding this group  Only antepartum treatment considered in analysis | 5930 singleton births; 5151 mother-child pairs with infection status reported; 5027 with ART data for analysis | Breastfeeding reported in 0.6% (29/4399) of infants (although not recommended in UK or Ireland). 3 infants infected, all born to untreated women | Elective; n=3368/5901 (57.1%)  Emergency; n=1223/5901 (20.7%) | AOR=OR adjusted for ART, mode of delivery, sex (gestational age was not a significant risk factor for transmission in women on ART and was excluded from analyses)  AOR2=OR adjusted for mode of delivery, gestational age, sex, viral load |

AIDS = acquired immune deficiency syndrome; AOR = adjusted odds ratio; ART = antiretroviral therapy; CD4 = cluster of differentiation 4; CDC = Centers for Disease Control and Prevention; CI = confidence interval; ECS = European Collaborative Study; IQR = interquartile range; MTCT = mother-to-child transmission; NNRTI = nonnucleoside reverse transcriptase inhibitor; NSHPC = National Study of HIV in Pregnancy and Childhood; OR = odds ratio; PI = protease inhibitor; ZDV = Zidovudine.