

Web table: Summary of studies included in the analysis

Author	Journal ref	Study type	Setting	Year	Population	Feeding practices		ARV regimen	Transmission by maternal CD4 count			
						#FF	#BF		Overall or not defined	<200	200-350	>350
Peripartum transmission: Incident infections in pregnant women						Probability applied in Spectrum			30%			
Birkhead GS	Obstet Gynecol 2010 June;115 (6):1247-55	Cohort	New York	2002-2006	Infants of 41 women who acquired HIV during pregnancy	3102 infants		None	22% (9/41)			
Roongpisu-thipong A	JAIDS 2001 Apr 1;26 (4):348-51	Prospective	Bangkok, Thailand	1992-1994	Infants of 16 women seroconverted during pregnancy	All		None	13.3% (2/15)			
Tovo P-A	Brit J Obstet Gynecol 1991 Sept;98:940-2	Case report	Italy	1980's	Infants of 10 women who seroconverted during pregnancy	All		None	20% (2/10)			
Rollins N	AIDS 2007, 21:1341-1347	Surveillance	South Africa	2004-2005	All infants attending immunisation clinics were tested and information collected from mothers. 172 mothers reported themselves as HIV uninfected but infants were antibody positive	Some	Some	None	30.5% [24.0-37.6]			
Postnatal transmission: Incident infection in breastfeeding mothers						Probability applied in Spectrum			28%			
Van de Perre P	NEJM 1991;325:593-8	Cohort analysis	Kigali, Rwanda	1988	Seronegative women followed prospectively of whom 16 seroconverted while breastfeeding		All	None	56.3% (9/16)			

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Dunn DT	Lancet 1992;340:585-8	Meta-analysis	Africa and Australia	late 1980s and early 1990s	42 mothers infected postpartum		All	None	28.6% (12/42) [16-42%]			
Palasanthiran P	J Infect Dis 1993;167:441-4	Retrospective case studies	Australia	1980s	11 mothers infected postnatally by blood transfusion, one via needles		All	None	27.3% (3/11) [6-61%]			
Ekpini ER	Lancet 1997. Apr 12;349:1054-9	Prospective	Cote d'Ivoire,	1990-94	12 mothers infected postnatally by HIV-1 (7 seroconverted from HIV-2 positive to dual positive)		All	None	16.7% (2/12)			
Liang K	J Infect Dis 2009; 200:682-6	Retrospective case studies	China	2007	Mothers infected postnatally by blood transfusion		All	None	35.8% (38/106)			
Humphrey J	BMJ 2010;341:c6580	Vitamin A intervention cohort	Zimbabwe	1997-2001	334 mothers seroconverted during the breastfeeding period		All	None	14.3% (95% CI 10.7-19.0)			

Peripartum transmission: No prophylaxis peripartum						Probability applied in Spectrum			22%	37%	27%	15%
Petra Study Team	Lancet 2002; 359:1178-86	Randomised Controlled Trial	Tanzania, South Africa, and Uganda	1996-2000	377 HIV-1 infected women attending large public (and one missionary) hospitals		All	Placebo	15.30%			
Wiktor SZ	Lancet 1999; 353:781-5	Randomised Controlled Trial	Cote d'Ivoire	1996-98	140 women HIV-1 infected women attending public ANC in Abidjan		All	Placebo	21.7% (14.0-28.8%) 25/119			

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Dabis F	Lancet 1999; 353:786-92	Randomised Controlled Trial	Cote d'Ivoire, Burkina Faso	1995-98	217 women attending public clinics in Abidjan and Bobo-Dioulasso		All	Placebo	21.8% (15.9-27.6%) 42/145			
Connor EM	N Engl J Med 1994;331:1173-80	Randomised Controlled Trial	US and France	1991-93	183 women in the placebo group with cd4 >200 cells/ml	All		Placebo	25.50%			
Shaffer N	Lancet 1999; 353:773-80	Randomised Controlled Trial	Thailand	1996-97	199 women from two Bangkok hospitals	All		Placebo	18.9% (13-24%) (37/198)	37.5% (n=24)	18.3% (n=104)	
Mayaux MJ	JAIDS 1995 Feb 1;8:188-94	Cohort study	France	1986-1994	848 women on no antiretroviral drugs, most formula feeding but some breastfeeding	98%	2%	None		43%		
Humphrey J	Personal communication. 2010	Randomised Controlled Trial	Zimbabwe	1998-2002	Women enrolled in a postpartum vitamin A trial		All	None		22.4% (123/549)	13.1% (117/891)	
Leroy V	AIDS 2005, vol 19(16); 1865-75	Meta analysis	South Africa N=500	1995-2000	Women attending public hospitals		49-52%	None		36.2% (22-51%)		<u>350-500</u> 27.3% (19-36)
			East Africa N=153		Women attending public hospitals in Dar es Salaam and Kampala		50-74%	None		36.4% (17-59)		30.3% (16-49)
			West Africa N=303		Women attending ANC in Abidjan and Bobo-Dioulasso		92-94%	None		54.2% (33-74%)		30.3% (16-49)

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Postnatal transmission: No prophylaxis postpartum						Probability applied in Spectrum			1.57% per month		0.51% per month	
Kuhn L et al.	AIDS 2010 Jun 1;24 (9):1374-7		Lusaka, Zambia N=544		HIV-infected women recruited during pregnancy followed for 24 months			None		<u><350</u> 1.31% per month		0.31% per month
J Humphrey	Personal communication Zvitambo study		Zimbabwe	2010	see above			None	1.57% per month combined	2.12% per month [18.6-29.1]	1.02% per month [8.7-14.3]	0.51% per month
Kesho Bora Study Group	Lancet Infect Dis 2011;11(3):171-80	Randomized controlled study	Burkina Faso, Kenya and South Africa	2005-2008	Antiretroviral-naïve pregnant women infected with HIV-1 who visited antenatal clinics		All	None			0.84% per month	
Mofenson L et al.	IAS,Capetown, South Africa, July 2009 Abs. TuPEC053 PEPI study		Malawi	2004-2009			96% at 6 months	None		1.89% per month		0.69% per month
Renaud Becquet	Personal communication Vertical Transmission Study and Ditrane Plus Study		South Africa Cote d'Ivoire	2001-2007 2001-2005				None		2.52% per month		0.96% per month

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Tonwe-Gold B et al.	PLoS.Med. 2007;4(8):e257	Observational cohort	Côte d'Ivoire,	2003-2005	Women attending HIV care center in Abidjan		71%	Maternal: AZT+3TC+sdNVP Infant sdNVP+AZT		<350		0.61% per month
Kesho Bora Study Group.	JAIDS 2010 Aug 15:54 (5):533-41	Observational cohort	Burkina Faso, Kenya and South Africa	2005-2006	Antiretroviral-naïve pregnant women infected with HIV-1 who visited antenatal clinics		78%	AZT (28 wks) + sdNVP				<0.1% per month
Kesho Bora Study Group.	Lancet Infect Dis 2011; 11(3):171-80	Randomized controlled study	Burkina Faso, Kenya and South Africa	2005-2008	Antiretroviral-naïve pregnant women infected with HIV-1 who visited antenatal clinics			None				<u>350-500</u> 0.48% per month
Peripartum transmission: Single dose NVP						Probability applied in Spectrum			12%			
Guay LA et al and Jackson JB et al.	Lancet 1999;354(9181):795-802 Lancet 2003 Sept 13;362:859-68 (HIVNET 012)		Uganda	1997-1999;				Sd NVP	11.9%			
Moodley D et al.	J Infect.Dis. 2003;187(5):725-35	Randomized controlled trial	South Africa	1999-2000	HIV-infected women at maternity health institutions			NVP	12.3%			
SWEN	Lancet 2008 July 26;372:300-13	Randomized controlled trial	Ethiopia, Uganda and India	2001-2007	Pregnant women at ANC or delivery		All	Sd NVP	9.4%			

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Peripartum transmission: WHO 2006 recommendation, dual prophylaxis						Probability applied in Spectrum			4%			
Dabis F, Bequet L, Ekouevi DK, et al.	AIDS 2005;19:309-18 ANRS Ditrane	Observational cohort	Côte d'Ivoire,	2001-2002	420 women in Abidjan ANC clinics			AZT, sdNVP, maternal 3TC	5.30%			
Tonwe-Gold B et al.	PLoS.Med. 2007;4(8):e257	Observational cohort	Côte d'Ivoire,	2003-2005	See above	mostly		Maternal: AZT+3TC sdNVP Infant: sdNVP+AZT				3.10%
Lallemant M et al	NEJM 2004 July 15;351 (3):217-28 (PHPT-2)	Randomized controlled trial	Thailand	2001-2003	Pregnant women receiving zidovudine	All		combined AZT+NVP/PI and AZT +NVP/NVP	2.3% (29/1264)			
Kesho Bora Study Group.	JAIDS 2010 Aug 15;54 (5):533-41	Observational cohort	Burkina Faso, Kenya and South Africa	2005-2006	See above		78%	AZT (28 wks) + sdNVP	4.9% [2.2 - 10.6] 6/115			
Shapiro RL et al.	AIDS 2006;20(9):1281-8 MASHI study	Randomized controlled trial	Botswana	2005-2006	HIV-infected women attending district hospitals			Maternal: sdNVP	4.0% (28/694)			
Peripartum transmission: Option A peripartum						Probability applied in Spectrum			2%			
Tonwe-Gold B et al	PLoS.Med. 2007;4(8):e257	Observational cohort	Côte d'Ivoire	2003-2005	See above	mostly		Maternal: AZT from 28 or 32 weeks + 3TC + sdNVP Infants: sdNVP+AZT at 7 days				3.10%

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Kesho Bora Study Group.	Lancet Infect Dis 2011;11(3):171-80	Randomized controlled trial	Burkina Faso, Kenya and South Africa,	2005-2008	See above							<u>350-500</u> 3.3% (11/335)
Lallemant M et al.	NEJM 2004 July 15;351 (3):217-28 (PHPT-2)	Randomized controlled trial	Thailand	2001-2003	see above	all		AZT (28 wks) + NVP/NVP				<u>>200</u> 1.6% (8/508)
Postnatal transmission: Option A postpartum									Probability applied in Spectrum		0.2% per month	
Chasela CS et al.	NEJM 2010;362:2271-81 BAN Study	Randomized controlled trial	Malawi	2006-2008	Women at ANC in Lilongwe			Infants received nevirapine increasing according to age, ranging from 10 mg daily in first 2 weeks to 30 mg daily for weeks 19 through 28				<u>>250</u> 0.31% per month
Coovadia H, et al	18th CROI 2011 HPTN 046		Southern Eastern Africa, multicentre, multicountry study	2007-2010			Almost all at 6 months	NVP daily while breastfeeding				0.12% per month

Author	Journal ref	Study type	Setting	Year	Population	Feeding practices		ARV regimen	Transmission by maternal CD4 count			
						#FF	#BF		Overall or not defined	<200	200-350	>350
Peripartum transmission: Option B peripartum									Probability applied in Spectrum			2%
Townsend CL et al.	AIDS 2008 May 11;22 (8):973-81	Surveillance	UK/Ireland	2000-2006	Women identified through national surveillance system as being HIV-infected	all						0.9% (22/2400)
Tubiana R et al	CID 2010 Feb 15;50 (4):585-96	Case-control study	France	1997-2006	HIV-infected women delivering throughout France	All						1.5% (115/7425) [1.3-2.4]
Kesho Bora Study Group.	Lancet Infect Dis 2011; 11(3):171-80	Randomized controlled trial	Burkina Faso, Kenya and South Africa	2005-2008	See above.		All	triple ARVs				350-500 2.90%
Shapiro et al.	NEJM 2010; 362:2282-94 MMA Bana study	Randomized controlled trial	Botswana	2006-2008	HIV-infected women referred to study locations			protease inhibitor or NRTI triple regimens				>200 0.9% (5/553)
Peltier CA et al.	AIDS 2009; 23(18):2415-23 Amata study	Non randomized intervention study	Rwanda	2005-2007	Women on ART or triple ARV prophylaxis				1.3% [0.4-4.1]			

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						#FF	#BF		Overall or not defined	<200	200-350	>350
Postnatal transmission: Option B postpartum									Probability applied in Spectrum 0.2% per month			
Chasela CS et al.	NEJM 2010;362:2271-81 BAN Study	Randomized controlled trial	Malawi	2006-2008	see above			Mothers received triple ARV starting after birth			<u>>250</u> 0.53% per month	
Kesho Bora Study Group.	Lancet Infect Dis 2011; 11(3):171-80	Randomized controlled trial	Burkina Faso, Kenya and South Africa	2005-2008	See above		most stopped BF at 6-7 months	triple ARVs			<u>350-500</u> 0.24% per month	
Shapiro et al.	NEJM 2010; 362:2282-94 MMA Bana study	Randomized controlled trial	Botswana	2006-2008	See above						<u>>200</u> 0.1% per month	
Peltier CA et al.	AIDS 2009; 23(18):2415-23 Amata study	Non randomized intervention study	Rwanda	2005-2007	Women on ART or triple ARV prophylaxis			<350 lifelong ART >350 AZT, 3TC + Efavirenz	0.063% per month			
Thomas T.	PLoS Med 2011 8(3): e1001015 KIBS study	Single-arm open label trial	Kenya	2003-2009	HIV-positive women who intended to breastfeed attending ANC at hospitals			HIV-infected pregnant women took zidovudine, lamivudine, and either nevirapine or nelfinavir from 34-36 weeks' gestation to 6 months post partum	0.16% per month			

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Peripartum transmission: ART started during pregnancy peripartum								Probability applied in Spectrum 2%				
Kesho Bora Study Group.	JAIDS 2010 Aug 15;54 (5):533-41	Observational cohort	Burkina Faso, Kenya and South Africa	2005-2006	See above		61%	ART		3.7% (4/104) [1.4-9.5]		
Kesho Bora Study Group.	Lancet Infect Dis 2011;11(3):171-80	Randomized controlled study	Burkina Faso, Kenya and South Africa	2005-2008	See above		All	triple ARVs			200-500 3.3%	
Townsend CL et al.	AIDS 2008 May 11;22 (8):973-81	Surveillance	UK/Ireland	2000-2006	See above	All		started triple ART during pregnancy	1.3% (39/2967)			
Tubiana R et al.	CID 2010 Feb 15;50 (4):585-96	Case-control study	France	1997-2006	See above	All		ART	0.5% (22/4281) [0.3-0.8]			
Tonwe-Gold B et al	PLoS.Med. 2007;4(8):e257	Observational cohort	Côte d'Ivoire	2003-2005	See above	All				<350 1.0% [0.0-3.1]		
Shapiro et al.	NEJM 2010; 362:2282-94 MMA Bana study	Randomized controlled trial	Botswana	2006-2008	See above			cd4 < 200 on ART; cd4>200 randomised to PI or NTRI regimens		0.6% (1/156)	>200 0.9% (5/553)	

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						#FF	#BF		Overall or not defined	<200	200-350	>350
Postnatal transmission: ART started during pregnancy postpartum									Probability applied in Spectrum 0.2% per month			
Kesho Bora Study Group.	JAIDS 2010 Aug 15:54 (5):533-41	Observational cohort	Burkina Faso, Kenya and South Africa	2005-2006	See above		0.61	ART		0.38% per month		
Tonwe-Gold B et al	PLoS.Med. 2007;4(8):e257	Observational cohort	Côte d'Ivoire	2003-2005	See above	mostly		maternal ART and infants receiving sdNVP and AZT,		<350 0.42% per month		
Shapiro et al.	NEJM 2010; 362:2282-94 MMA Bana study	Randomized controlled trial	Botswana	2006-2008	See above			ART		0% per month		
Thomas T.	PLoS Med 2011 8(3): e1001015 KIBS study	Single-arm open label trial	Kenya	2003-2009	See above			HIV-infected pregnant women took zidovudine, lamivudine, and either nevirapine or nelfinavir from 34–36 weeks' gestation to 6 months post partum	0.16% per month			
Peltier CA et al.	AIDS 2009; 23(18):2415-23 Amata study	Non randomized intervention study	Rwanda	2005-2007	Women on ART or triple ARV prophylaxis			<350 lifelong ART >350 AZT, 3TC + Efavirenz	0.063% per month			

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Peripartum transmission: ART started before pregnancy								Probability applied in Spectrum 0.50%				
Townsend CL et al.	AIDS 2008 May 11;22 (8):973-81	Surveillance	UK/Ireland	2000-2006	most had caesarean section	All		on triple ART at conception	0.1% (1/928)			
Botswana Ministry of Health	Botswana Ministry of Health Report January 2011	Programme data on early infant diagnosis	Botswana	2010		All			0.3% (N=900)			
Hoffman RM.	JAIDS 2010 May;54:35-41	Observational study	South Africa	2004-2008	observational study of women on ART	97%			0.7% (1/143)			
Kesho Bora Study Group.	Lancet Infect Dis 2011;11(3):171-80	Randomized controlled study	Burkina Faso, Kenya and South Africa	2005-2008	See above		All	ART	1.3% at 6 wks 0% at birth			
Shapiro et al.	NEJM 2010; 362:2282-94 MMA Bana study	Randomized controlled study	Botswana	2006-2008				cd4 < 200 on ART; cd4>200 randomised to PI or NTRI regimens		0.6% (1/156)		
Postnatal transmission: ART started before pregnancy (studies included did not all start ART pre-pregnancy – see commentary)								Probability applied in Spectrum 0.16% per month				
Kesho Bora Study Group.	JAIDS 2010 Aug 15:54 (5):533-41	Observational cohort	Burkina Faso, Kenya and South Africa	2005-2006	see above		61%	ART		0.18% per month		
Shapiro et al.	NEJM 2010; 362:2282-94 MMA Bana study	Randomized controlled trial	Botswana	2006-2008	see above			ART		0% per month		

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Thomas T.	PLoS Med 2011 8(3): e1001015 KIBS study	Single-arm open label trial	Kenya	2003-2009	see above			HIV-infected pregnant women took zidovudine, lamivudine, and either nevirapine or nelfinavir from 34–36 weeks' gestation to 6 months post partum	0.16% per month			
Peltier CA et al.	AIDS 2009; 23(18):2415-23 Amata study	Non randomized intervention study	Rwanda	2005-2007	Women on ART or triple ARV prophylaxis			<350 lifelong ART >350 AZT, 3TC + Efavirenz	0.063% per month			
Chasela CS et al.	NEJM 2010;362:2271-81 BAN Study	Randomized controlled trial	Malawi	2006-2008	see above			see above				>250