

# Transaction prices for Antiretroviral Medicines and HIV Diagnostics from 2008 to October 2010



A summary report from the Global  
Price Reporting Mechanism  
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## Background and Methods

The Global Price Reporting Mechanism (GPRM) contains information on transaction prices and quantities of antiretrovirals (ARVs), tuberculosis drugs, malaria drugs and HIV, TB and Malaria diagnostics purchased by HIV/AIDS, TB and Malaria programmes in low-income countries\*, lower middle-income countries† and upper middle-income countries‡.

The country classification is done using the World Bank Atlas calculation and classification method<sup>1,2</sup>, and the focus group is low-income, lower middle-income and upper-middle-income countries.

The GPRM complements reports of price quotes from pharmaceutical companies<sup>3,4,5,6,7,8,9</sup> as well as smaller sets of transaction prices published by other sources<sup>10,11,12,§</sup>.

Based on assessments done using the full data set in the GPRM for year 2008 and 2009\*\*, GPRM currently represents at least 75% of all public procurement of ARVs, 50% of all public procurement of TB medicines and 30% of anti malaria (ACTs) public procurement.

This summary report features the transaction data of ARVs in 2008, 2009 and the three first quarters of 2010, and is based on information received by 10 November 2010 from the partners§.

All transaction data used in this analysis have been compiled and stored in the searchable database developed and maintained by the AIDS Medicines & Diagnostics Service (AMDS) of WHO HIV/AIDS Department and is available at <http://apps.who.int/hiv/amds/price/hdd/>.

The information provided in this report reflects transactions of

- thirty-six formulations used for adult HIV ARV treatment<sup>13,14</sup> and recommended by WHO for the first and/or second-line regimens
- thirty-one formulations for paediatric ARV treatment recommended by WHO for the first and/or second-line regimens<sup>15,14</sup>

The GPRM also contains data for less frequently used but WHO recommended ARV formulations, medicine for opportunistic infections, medicines for malaria and tuberculosis treatment, and other health commodities related to the treatment of HIV, TB and malaria. However, the present summary report is for ARVs only.

The transaction prices were analysed using the statistics below:

- The median price for each formulation (represents the price separating the 50% transactions with higher prices from the 50% with lower prices).

\* countries with a gross national income (GNI) per capita of US\$ 995 or less

† countries with a GNI per capita between US\$ 996 and US\$ 3,945

‡ countries with a GNI per capita between US\$ 3,946 and US\$ 12,195

§ The transaction data in the GPRM are provided by the following organizations: the Clinton Foundation; HIV/AIDS Initiative/UNITAID; the Global Fund to Fight AIDS, Tuberculosis, and Malaria; the International Dispensary Association; USAID/deliver (former John Snow Inc./deliver); Management Sciences for Health; Missionpharma; Supply Chain Management System; the United Nations Children's Fund; and the World Health Organization's Contracting and Procurement Service.

\*\* For single dose formulation, we divided the number of patients that could be treated per year using the total number of tablets or capsules from that formulation by three, and by two for the fixed dose combination made of two drugs and by 1 for the fixed dose made of three drugs. From the sum of the number of patient, we derived the percentage from the estimated number of patients reported on treatment those years

- The range between the 25<sup>th</sup> and 75<sup>th</sup> percentiles called the inter-quartile range (IQR, also called the midspread, a measure of statistical dispersion being equal to the difference between the third and first quartiles).

The combination of the median value and the IQR, instead of the mean  $\pm$  standard deviation, was selected for this analysis in view of the asymmetrically distributed nature of the data.

For the interpretation and use of the data in this report, it is important to note that:

1. All prices are shown in US Dollars (US\$) per patient per year of a defined daily dose of each medicine for adults or children.
2. The statistics are not calculated for formulations with less than five worldwide transaction lines.
3. Countries are classified using the World Bank Atlas calculation method.
4. The prices in this report are international transaction prices, and not the prices paid by end-users at country level. End-user prices are often higher than international transaction prices due to tariffs, taxes, transportation costs, and mark-ups. However, in certain instances, end-user prices could be lower than international transaction prices due to subsidies. More information on end-user prices can be found on the Health Action International website at <http://www.haiweb.org/medicineprices/><sup>16</sup>.

Taxes, tariffs, and/or International Commercial Terms (INCOTERMS: cost or condition of transport, insurance, etc.) are not consistently reported and therefore are not considered<sup>††</sup>.



5. All transactions listed in the GPRM with a price of US\$ 0, or appearing as duplications, can be either ARV donations or erroneous information. Such transactions are removed from the analysis, along with their corresponding purchased volumes.
6. When no price is mentioned in the tables, this should be interpreted as no or less than five transactions of the formulation were recorded for that specific category during the period considered for the analysis.

7. Median prices published in this report for a specific year may be different from the ones published in previous reports for the same year. This is due to availability of more complete data (e.g. PEPFAR procurement data for the year before received in April of the New Year).

8. The median price for specific regimen recommended by the new WHO guidelines and highlighted in this analysis is the sum of median of specific formulation that makes

up the regimen or the median price of its fixed dose combination

This summary report is intended to provide the pricing data of key ARVs and HIV diagnostics to governments, non-governmental organizations, donors, international organizations, academia, and individuals or institutions directly involved or interested in the procurement of ARVs in resource-poor settings.

Comments and suggestions would be greatly appreciated. Please send comments to Mr Boniface Dongmo Nguimfack at [dongmonguimfackb@who.int](mailto:dongmonguimfackb@who.int).

<sup>††</sup> Previous investigations by the U.S. Government Accounting Office and Management Sciences for Health suggested that any variation in INCOTERMS constituted a 3% -15% increases over the factory or ex works (EXW) price<sup>12</sup>.

## Table of Abbreviations

International Non-proprietary Name (INN)	Abbreviation
abacavir	ABC
atazanavir	ATV
darunavir	DRV
didanosine	ddI
efavirenz	EFV
emtricitabine	FTC
etravirine	ETV
fos-amprenavir	FPV
indinavir	IDV
lamivudine	3TC
lopinavir	LPV
nelfinavir	NFV
nevirapine	NVP
raltegravir	RAL
ritonavir	RTV
saquinavir	SQV
stavudine	d4T
tenofovir	TDF
zidovudine	ZDV

In this summary report, the emphasis has been put on illustrating the price trend for the main used ARV regimens recommended by WHO. The ranking of regimens is based on the results of the WHO survey (SIR/HIV<sup>17</sup>) on the country use of ARVs. Tables in annexes provide information on medians for all formulations and drugs matching the criteria of at least five transactions.

Stavudine (d4T) and d4T-based regimens are still the most, used formulation in LIC and LMIC<sup>18</sup>. They have not been highlighted in our analysis as priority regimen as it is not anymore recommended by WHO. We therefore put emphasis on winners of the eviction of d4T, which are tenofovir (TDF) and zidovudine (AZT,ZDV). Thymidine in the main active pharmaceutical (API) needed for the production of TDF and ZDV and the 2010 forecasting exercise<sup>17</sup> show that the demand of this API will increase exponentially. There is a need to monitor the production capacity of thymidine to avoid a global shortage of TDF and ZDV. WHO prequalification and the USFDA have fast track the TDF (ZDV is an old formulation and out of patent and well registered worldwide) in their approval mechanism and as result the number of formulation prequalified has gone up by six fold. The price of TDF based regimens has also gone down significantly in LIC, LMIC and UMIC.

The data used for 2008 and 2009 is based on the full year, while the 2010 data is only based on data reported for the period going from January to the end of October 2010.

1. Price trend for adult ARV treatment per country income level

Fig. 1a: The price trend for the most commonly used *first-line regimens in low-income countries (LIC)* for adult patients.

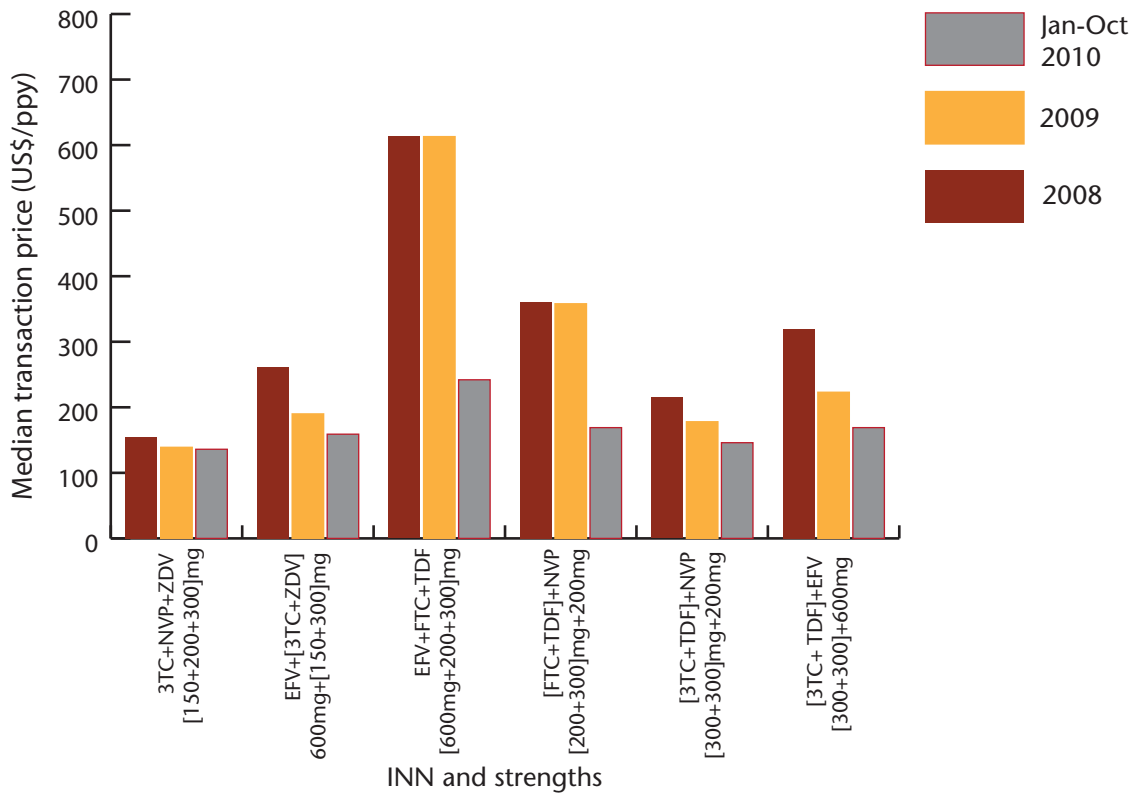


Fig. 1b: The price trend for the most commonly used *first-line regimens in lower middle-income countries (LMIC)* for adult patients.

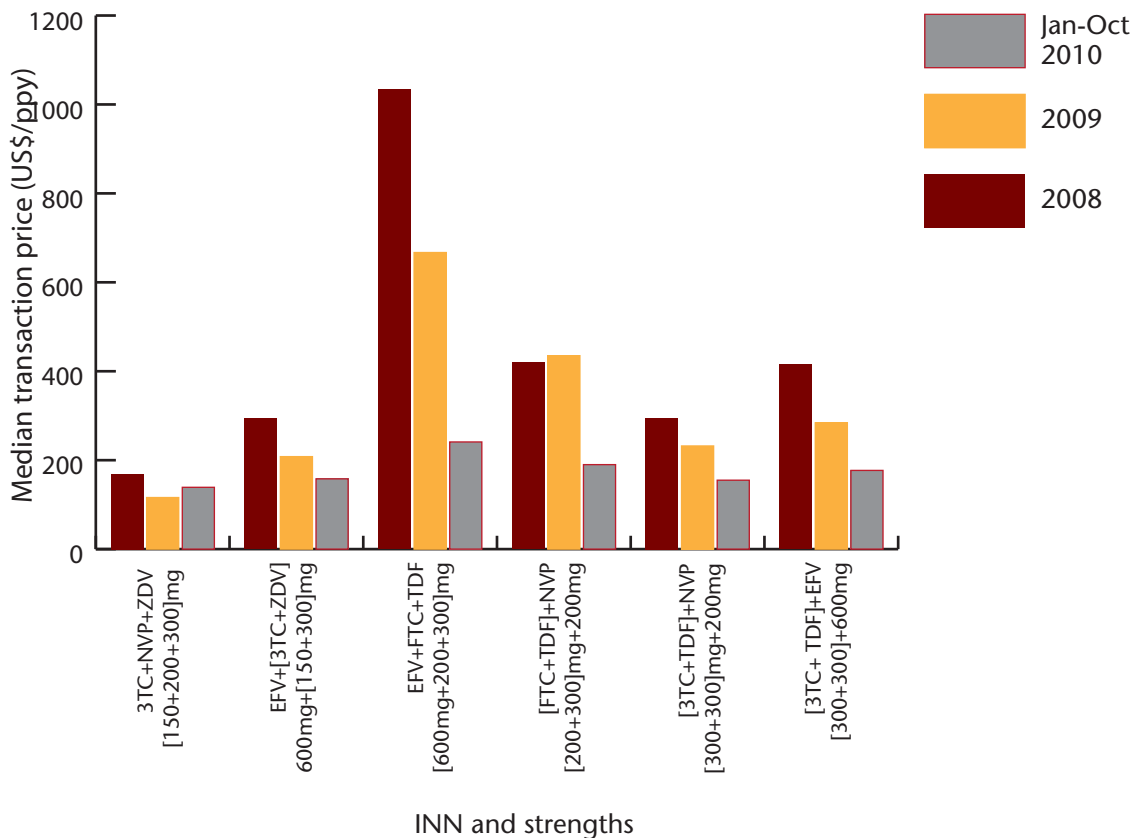
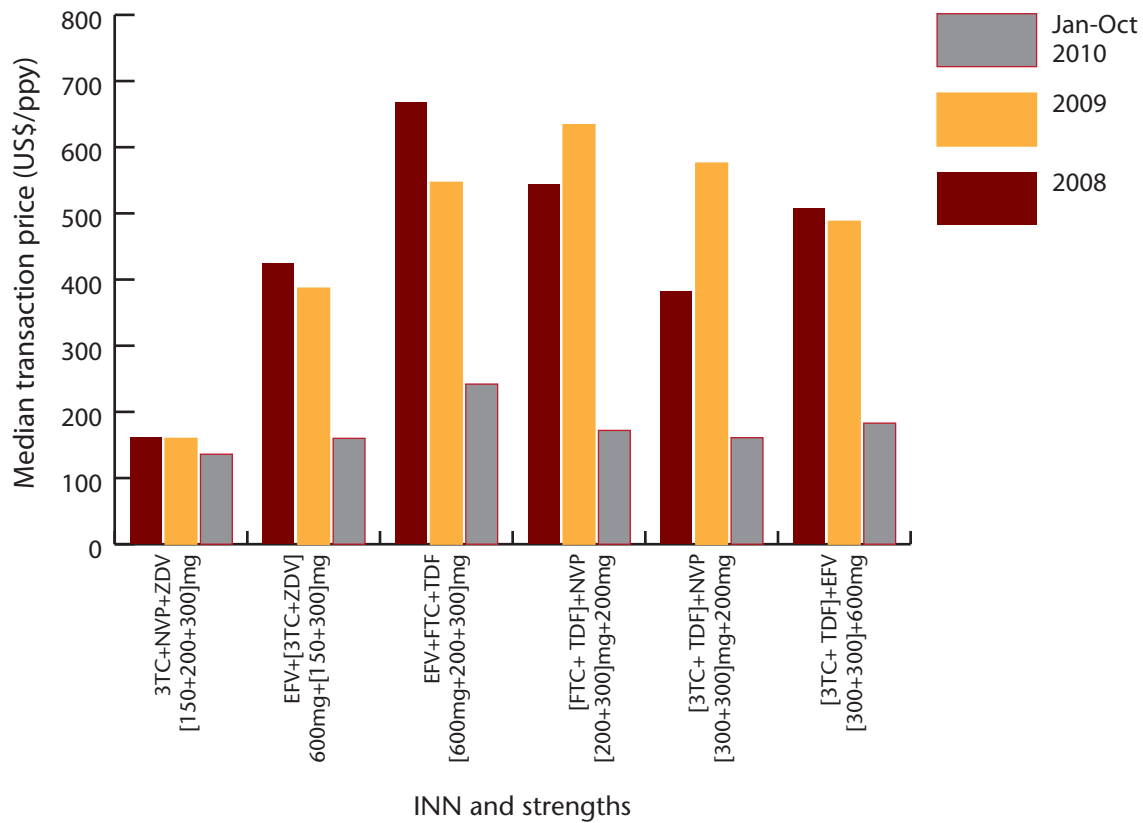


Fig. 1c: The price trend for the most commonly used *first-line regimens in upper middle-income countries (UMIC)* for adult patients.



*Table 1: Summary table of price evolution between 2008 and 2010 in percentage in low-, lower-middle and upper middle countries for the most commonly used first-line regimens for adult patients.*

INN	LIC	LMIC	UMIC
3TC+NVP+ZDV [150+200+300]mg	-12%	-18%	-16%
EFV+[3TC+ZDV] 600mg+[150+300]mg	-39%	-46%	-62%
EFV+FTC+TDF [600mg+200+300]mg	-61%	-77%	-64%
[FTC+ TDF]+NVP [200+300]mg+200mg	-53%	-55%	-68%
[3TC+ TDF]+NVP [300+300]mg+200mg	-32%	-47%	-58%
[3TC+ TDF]+EFV [300+300]+600mg	-47%	-35%	-64%

The median price of medicines for adult major first-line regimens continued to decrease in LIC, LMIC and UMIC between 2008 and October 2010. This decline is not due to the change in the pricing policy of pharmaceutical companies but in the arising of more prequalified and stringent regulatory approved generic version of tenofovir and the fixed dose of tenofovir + emtricitabine thus more competition and the decision of LIC, LMIC and UMIC to procure the generic version of those medicines. The translation of these strategic choices partly explains the decrease in prices observed in table1 above as the effect of volumes; payment terms and pool procurement were not taken into consideration in this analysis.

The clear observation in the decline of tenofovir based regimens can be explained by the fact that we have gone from one pre-qualified or stringent regulatory approved source in 2008 to eight in 2010 for tenofovir and to five for TDF+3TC/FTC and three for EFV +3TC/FTC+TDF

Fig. 1d: The price trend for the most commonly used *second-line regimens in low-income countries (LIC)* for adult patients.

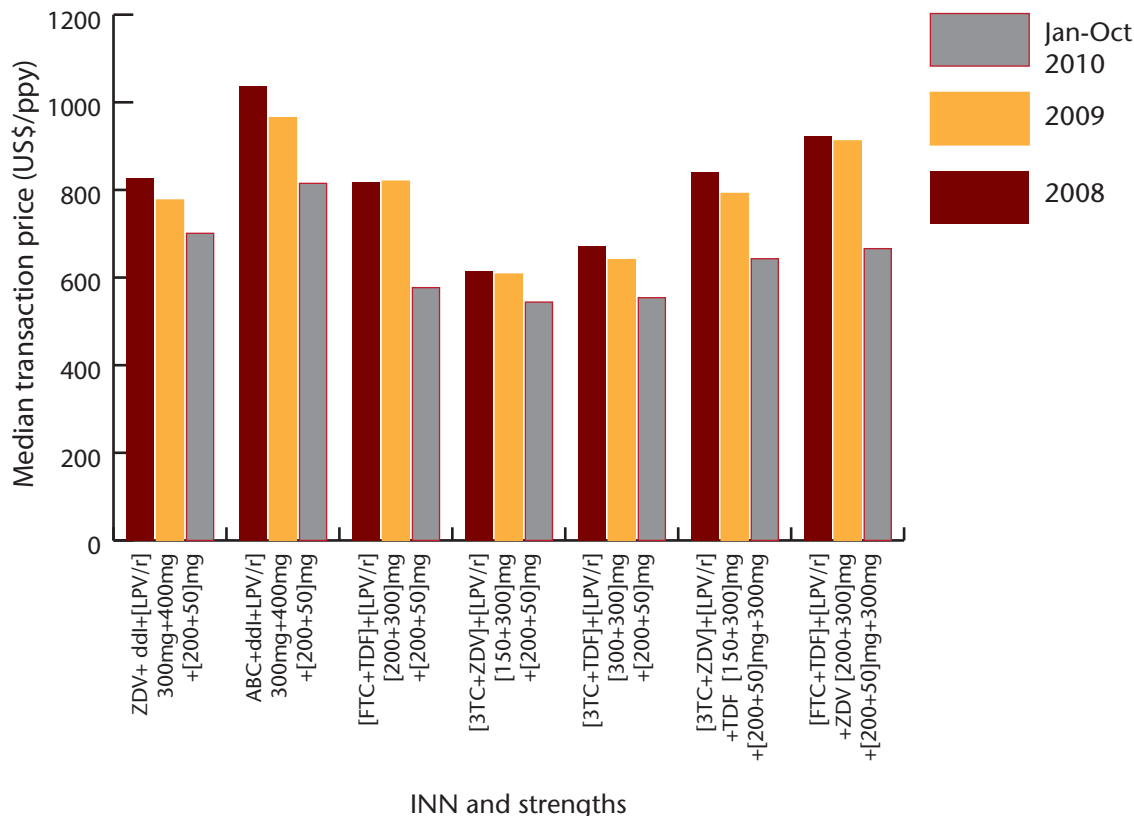


Fig. 1e: The price trend for the most commonly used *second-line regimens in lower middle-income countries (LMIC)* for adult patients

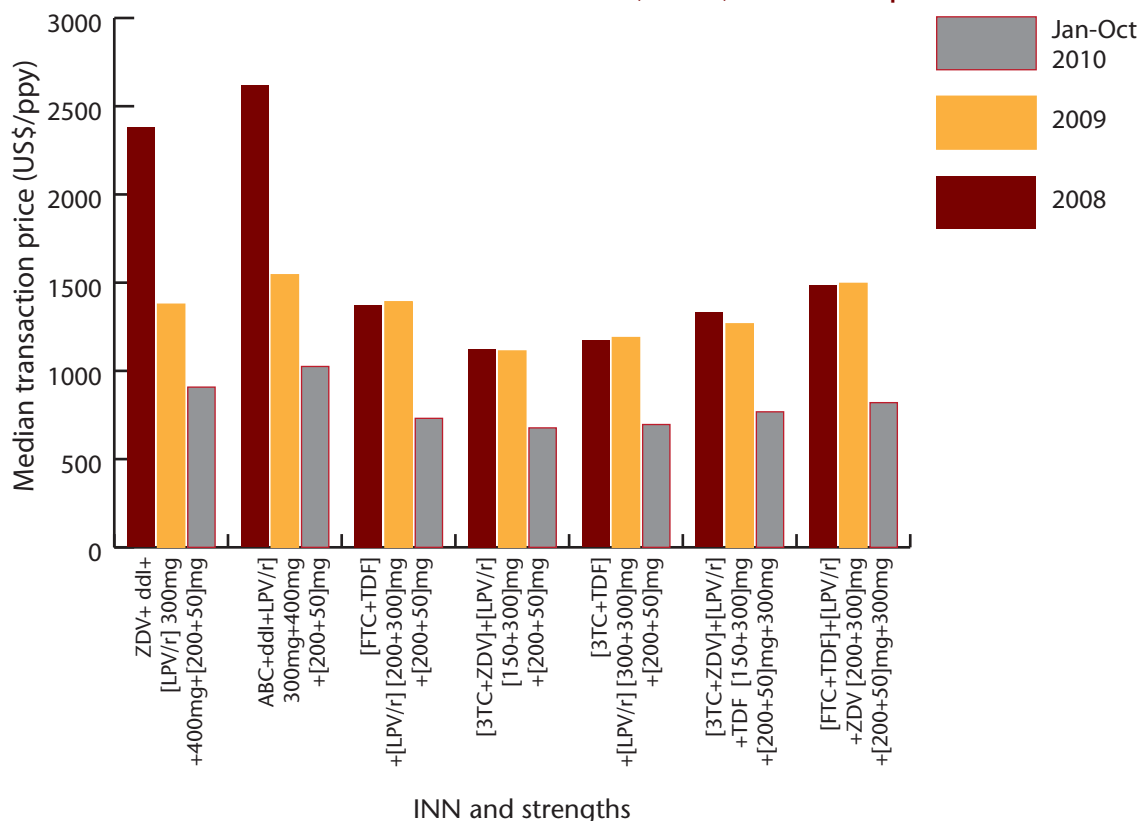
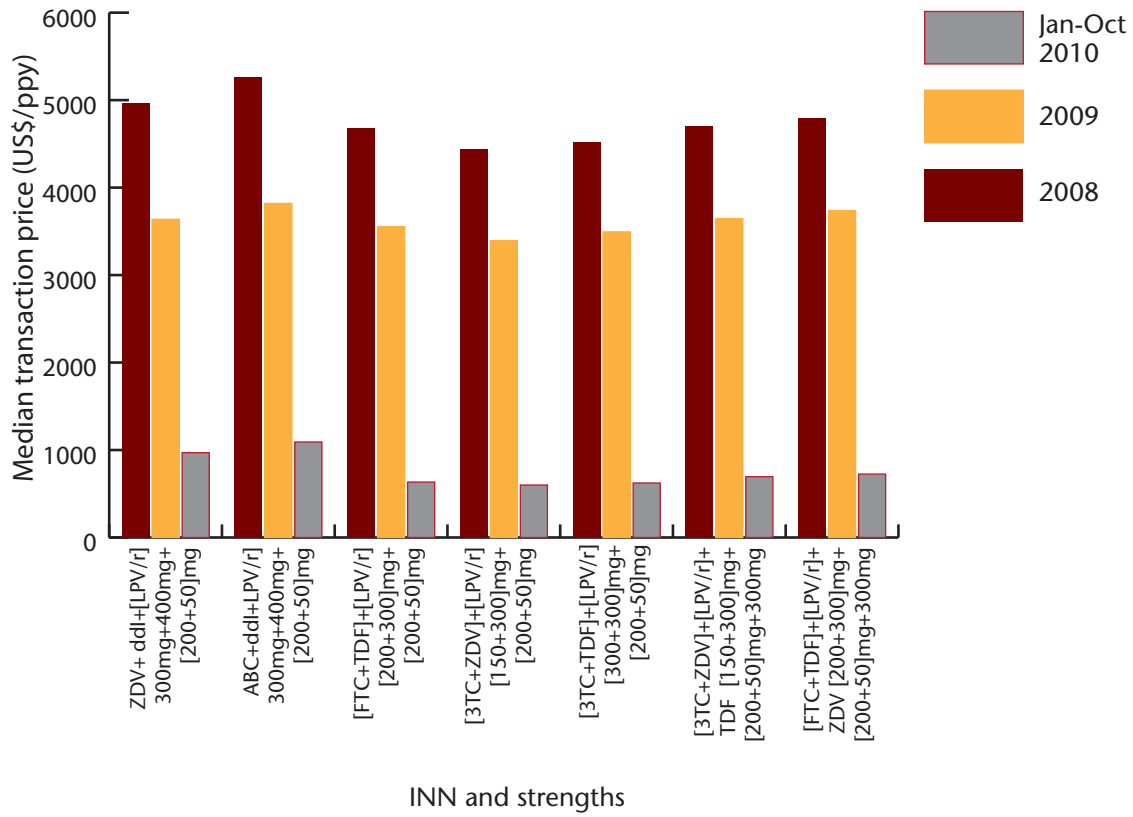


Fig. 1f: The price trend for the most commonly used *second-line regimens in upper middle-income countries (UMIC)* for adult patients.



*Table 2: Summary table of price evolution between 2008 and 2010 in percentage in low-, lower-middle and upper middle countries for the most commonly used second-line regimens for adult patients.*

INN	LIC	LMIC	UMIC
ZDV+ ddi+[LPV/r] 300mg+400mg+[200+50]mg	-15%	-62%	-80%
ABC+ddi+LPV/r] 300mg+400mg+[200+50]mg	-21%	-61%	-79%
[FTC+TDF]+[LPV/r] [200+300]mg+[200+50]mg	-30%	-47%	-86%
[3TC+ZDV]+[LPV/r] [150+300]mg+[200+50]mg	-12%	-40%	-86%
[3TC+TDF]+[LPV/r] [300+300]mg+[200+50]mg	-18%	-41%	-86%
[3TC+ZDV]+[LPV/r]+TDF [150+300]mg+[200+50]mg+300mg	-23%	-42%	-85%
[FTC+TDF]+[LPV/r]+ZDV [200+300]mg+[200+50]mg+300mg	-28%	-45%	-85%

The median price of medicines for adult major second-line regimens between 2008 and October 2010 followed the same downward trend as observed in first line regimens though not with the same magnitude in the three groups. Within that period, the median price of the most commonly prescribed regimen for adults use. ZDV+ ddi+[LPV+RTV] 300mg +400mg+ [200+50]mg, dropped by 15% in LIC, 62% in LMIC and 80% in UMIC. The same trend was observed with the other seven most prescribed second line regimens (see table2 above).

The price decline can partly be explained by the increase of prequalified and stringent regulatory approved generic version of LPV+RTV, ABC and TDF, thus more competition and the decision of LIC, LMIC and UMIC to procure them. The number of prequalified LPV+RTV has gone up from one source to five sources and the number of ABC producers has also increased as well as those of TDF.

2. Price trend for paediatric (*infant of 5 kg*) ARV Treatment per country income level

Fig. 2a: The price trend for the most commonly used *first-line regimens* for paediatric patients *in LIC (infant of 5 kg)*

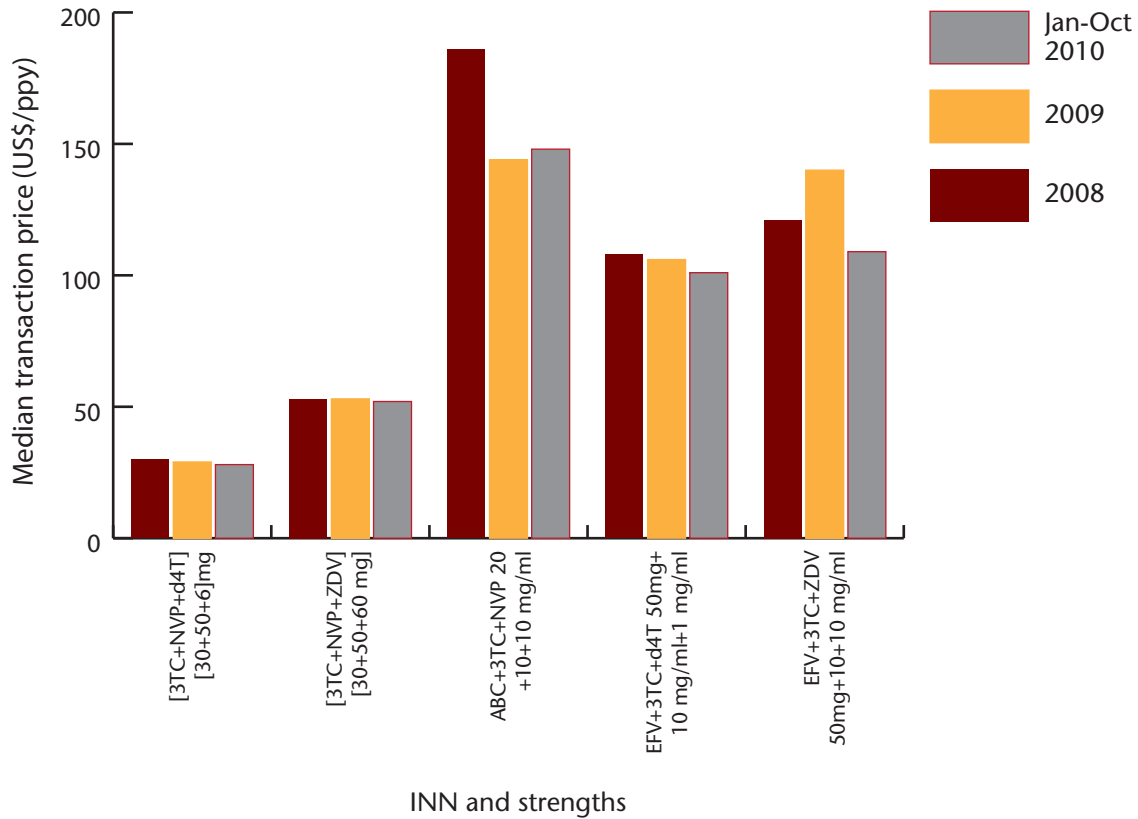
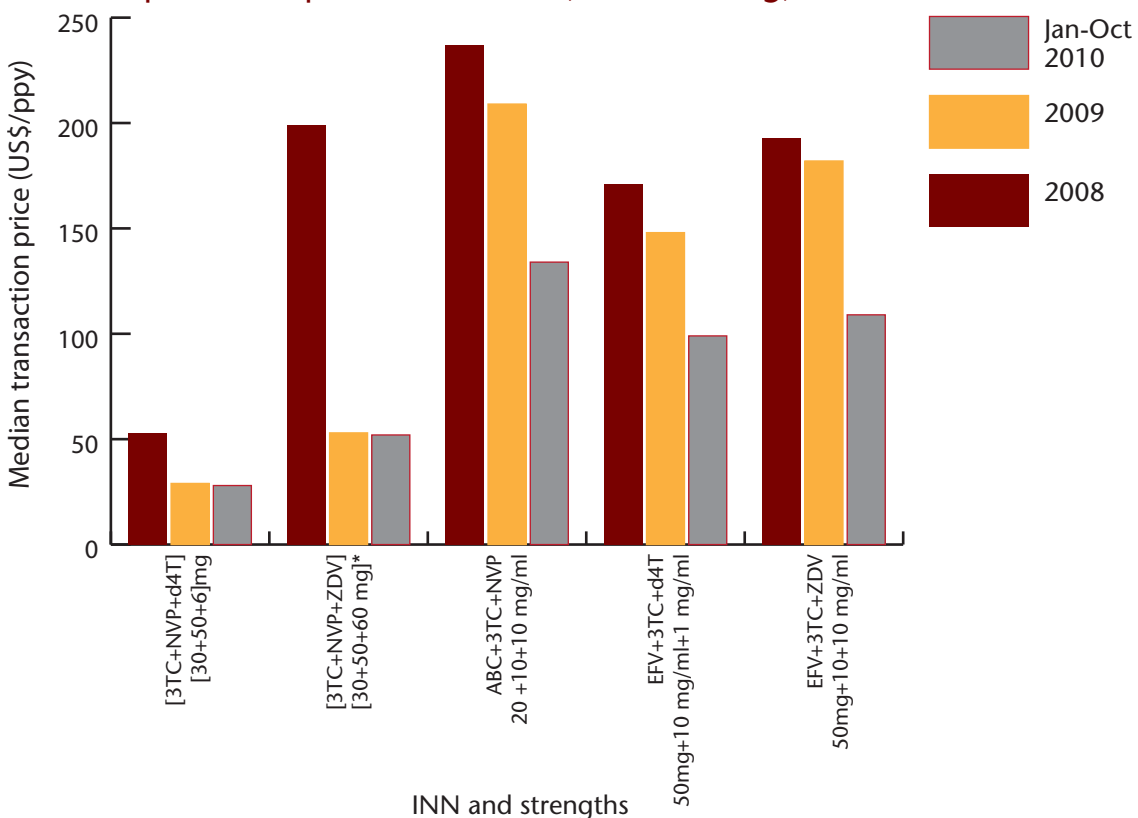
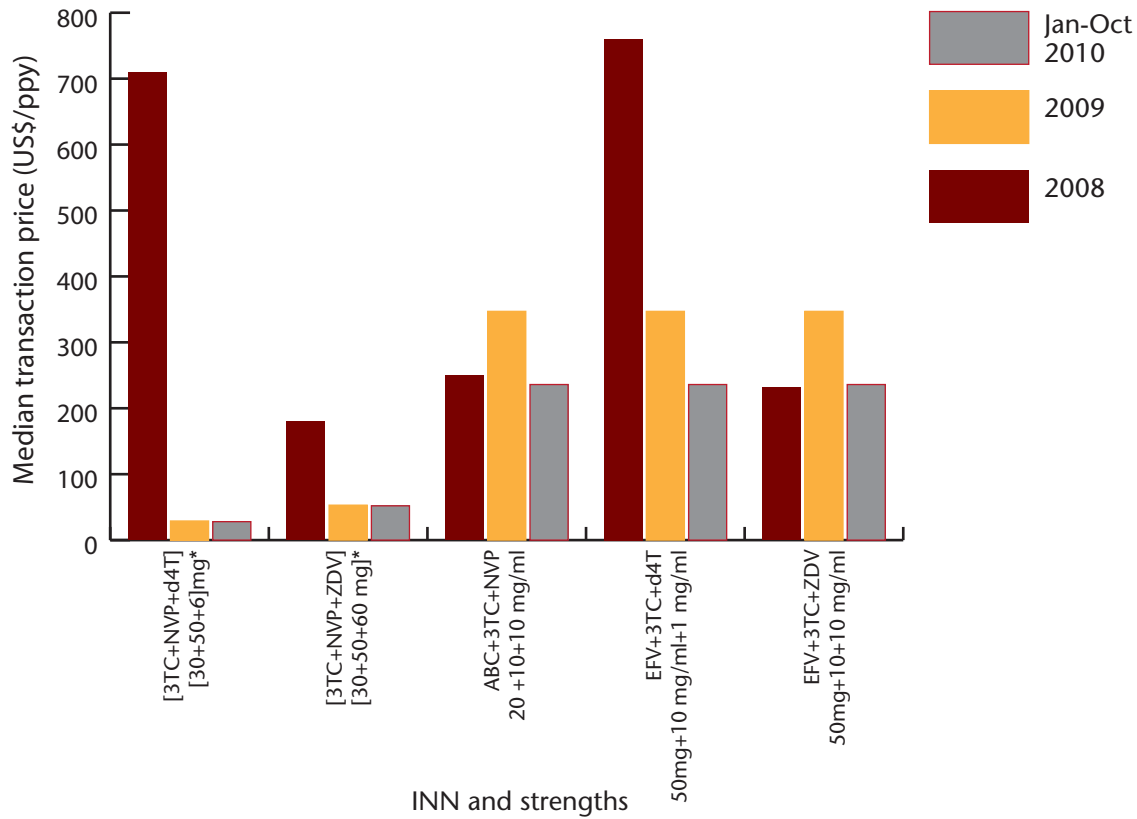


Fig. 2b: The price trend for the most commonly used *first-line regimens* for paediatric patients *in LMIC (infant of 5 kg)*



\* used of 3TC+NVP+ZDV 10 +10+10 mg/ml instead of a FDC of [3TC+NVP+ZDV] [30+50+60 mg] in 2008

Fig. 2c: The price trend for the most commonly used *first-line regimens* for paediatric patients in UMIC (infant of 5 kg)



\* used of 3TC+NVP+d4T 10+10+1 mg/ml and 3TC+NVP+ZDV 10+10+10 mg/ml instead of a FDC of [3TC+NVP+d4T] [30+50+6]mg [3TC+NVP+ZDV] [30+50+60]mg in 2008

*Table 3: Summary table of price evolution between 2008 and 2010 in percentage in low-, lower-middle and upper middle countries for the most commonly used first-line regimens for paediatric patients (infant of 5 kg)*

INN	LIC	LMIC	UMIC
[3TC+NVP+d4T] [30+50+6]mg	-6%	-47%	-96%
[3TC+NVP+ZDV] [30+50+60 mg]*	-2%	-74%	-71%
ABC+3TC+NVP 20 +10+10 mg/ml	-20%	-44%	-6%
EFV+3TC+d4T 50mg+10 mg/ml+1 mg/ml	-7%	-42%	-69%
EFV+3TC+ZDV 50mg+10mg/ml+10 mg/ml	-10%	-43%	+2%

The median price of medicines for paediatric patients (*infant of 5 kg*) major first-line regimens between 2008 and October 2010 followed the same downward trend as observed in first line regimens though not with the same magnitude in the three groups. Within that period, the median price of the most commonly prescribed regimen for adults use<sup>17</sup>. 3TC+NVP+d4T, dropped by 6% in LIC, 47% in LMIC and 96% in UMIC (see table3 above).

The price decline for paediatric patients can partly be explained by the introduction of suitable fixed dose formulation, their increase prequalification and stringent regulatory approval and the decision of LIC, LMIC and UMIC to procure them. This is true for 3TC+NVP+d4T and 3TC+NVP+ZDV which have respectively how many sources compared to 2008.

The decline observed in EFV-containing oral formulations is explained by the considerable price reduction of EFV 50mg generic version and the decision of LMIC to procure them.

Fig. 2d: The price trend for the most commonly used *second-line regimens* for paediatric patients *in LIC (infant of 5 kg)*

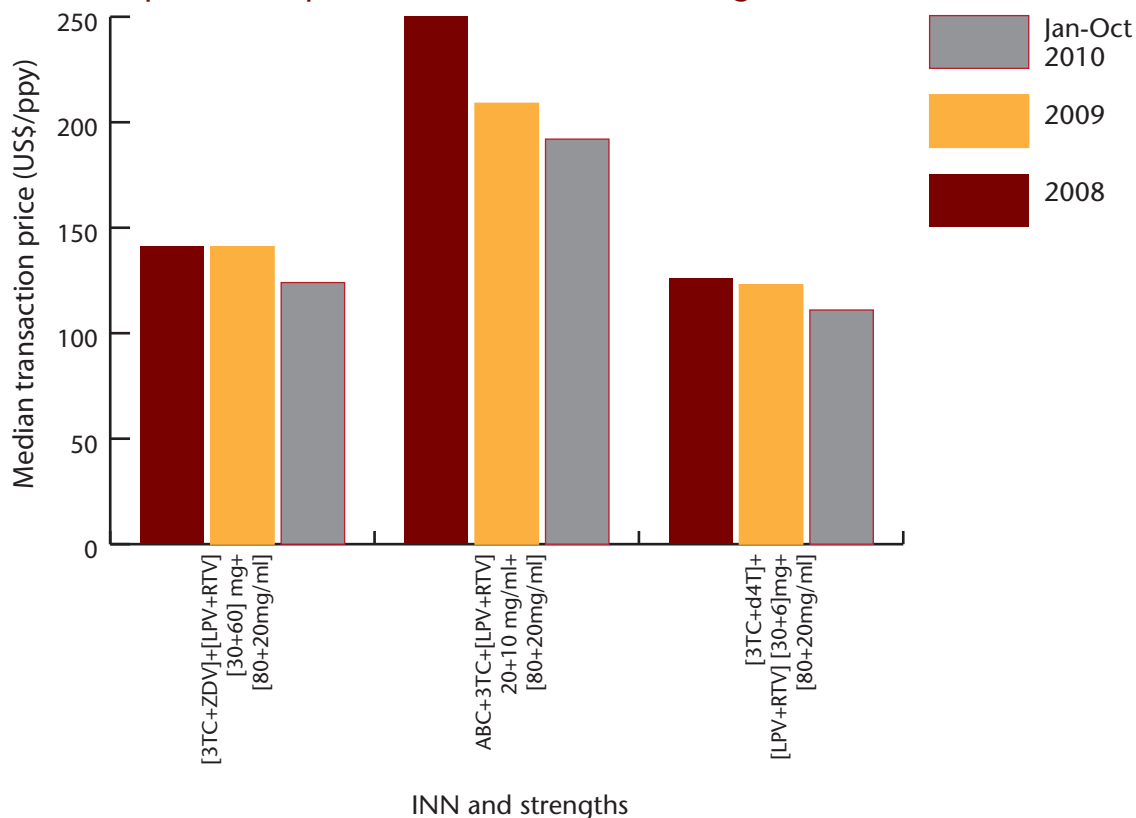


Fig. 2e: The price trend for the most commonly used *second-line regimens* for paediatric patients *in LMIC (infant of 5 kg)*

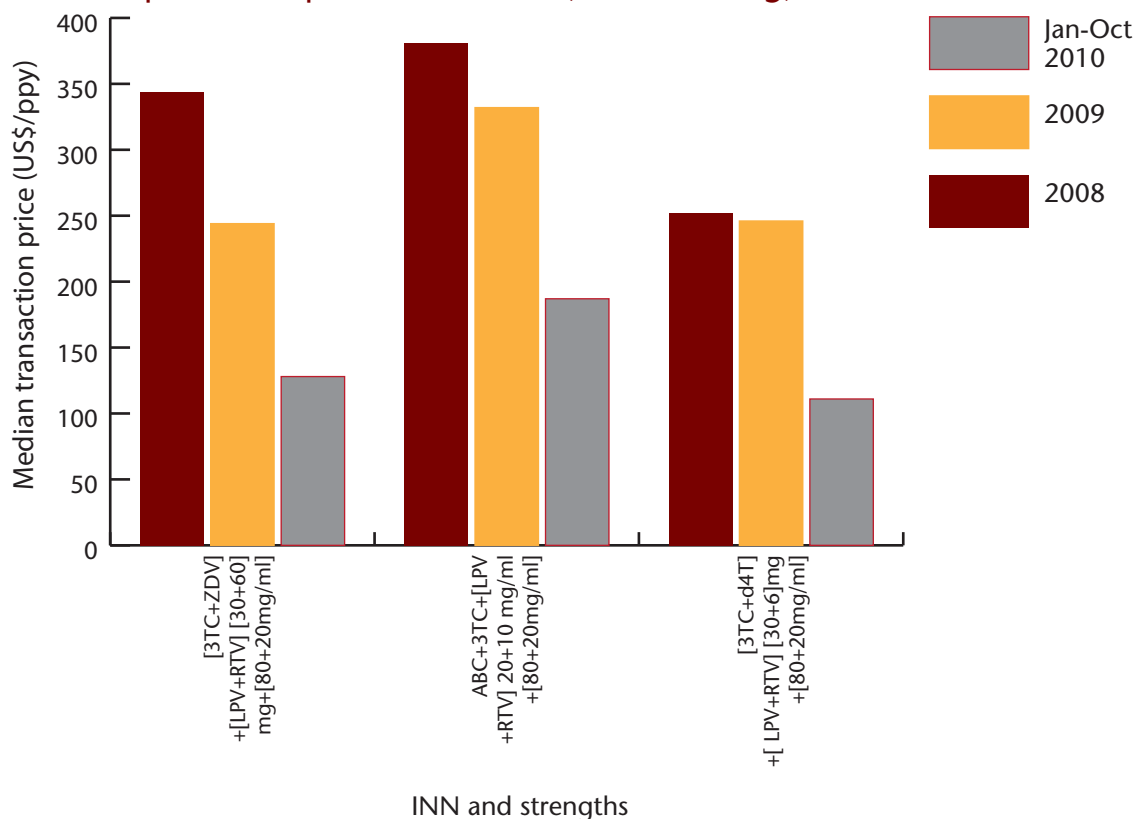
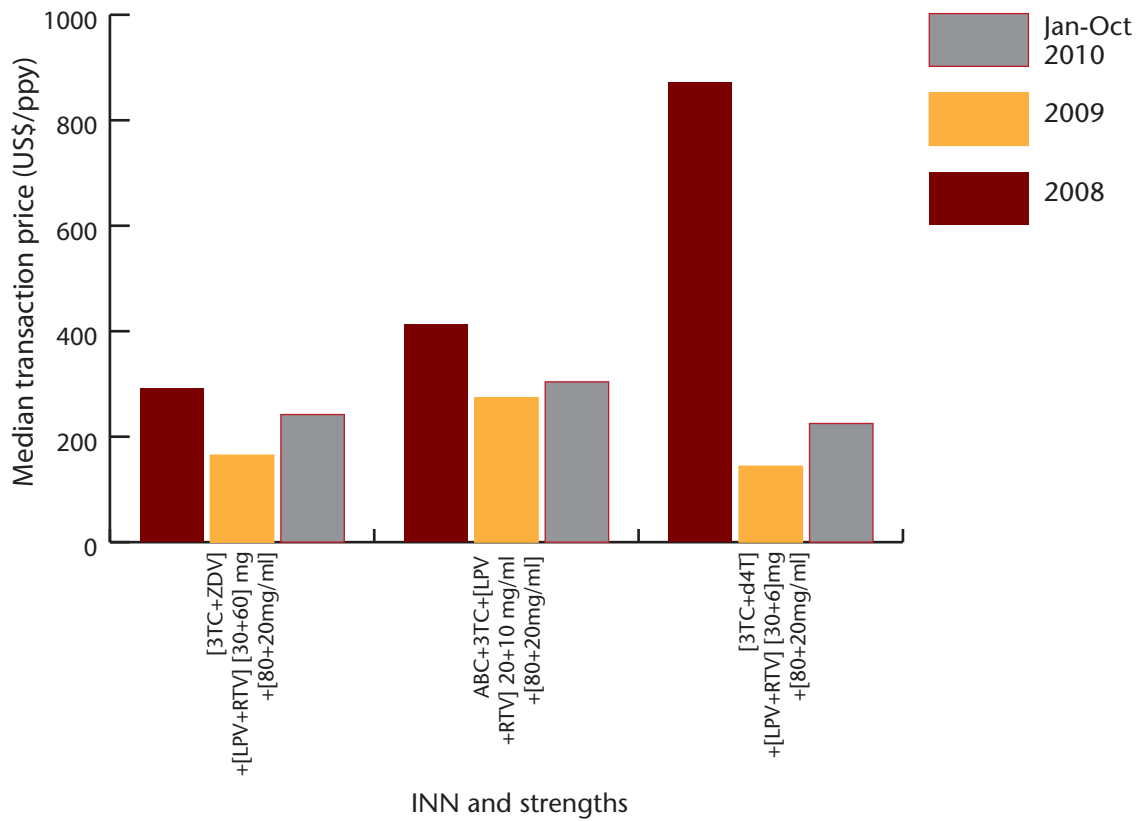


Fig. 2f: The price trend for the most commonly used *second-line regimens* for paediatric patients *in UMIC (infant of 5 kg)*



*Table 4: Summary table of price evolution between 2008 and 2010 in percentage in low-, lower-middle and upper middle countries for the most commonly used second-line regimens for paediatric patients (infant of 5 kg)*

INN	LIC	LMIC	UMIC
[3TC+ZDV]+[LPV+RTV] [30+60] mg+[80+20mg/ml]	-12%	-63%	-17%
ABC+3TC+[LPV+RTV] 20+10 mg/ml+[80+20mg/ml]	-23%	-51%	-26%
[3TC+d4T]+[ LPV+RTV] [30+6]mg+[80+20mg/ml]	-12%	-56%	-74%

The median price of medicines for paediatric patients major second-line regimens between 2008 and October 2010 followed the same downward trend as observed in first line regimens though not with the same magnitude in the three groups. Within that period, the median price of the most commonly prescribed regimen for paediatric patients use<sup>17</sup>. [ZDV+ 3TC]+[LPV+RTV] [30+60] mg+[80+20mg/ml], dropped by 12% in LIC, 63% in LMIC and 17% in UMIC. The same trend was observed with the other two most prescribed second line regimens (see table 4 above).

The price decline can partly be explained by the move of some countries from LIC to LMIC and UMIC.

3. Price trend for paediatric ARV Treatment per country income level (10 kg)

Fig. 3a: The price trend for the most commonly used *first-line regimens* for paediatric patients *in LIC (infant of 10 kg)*

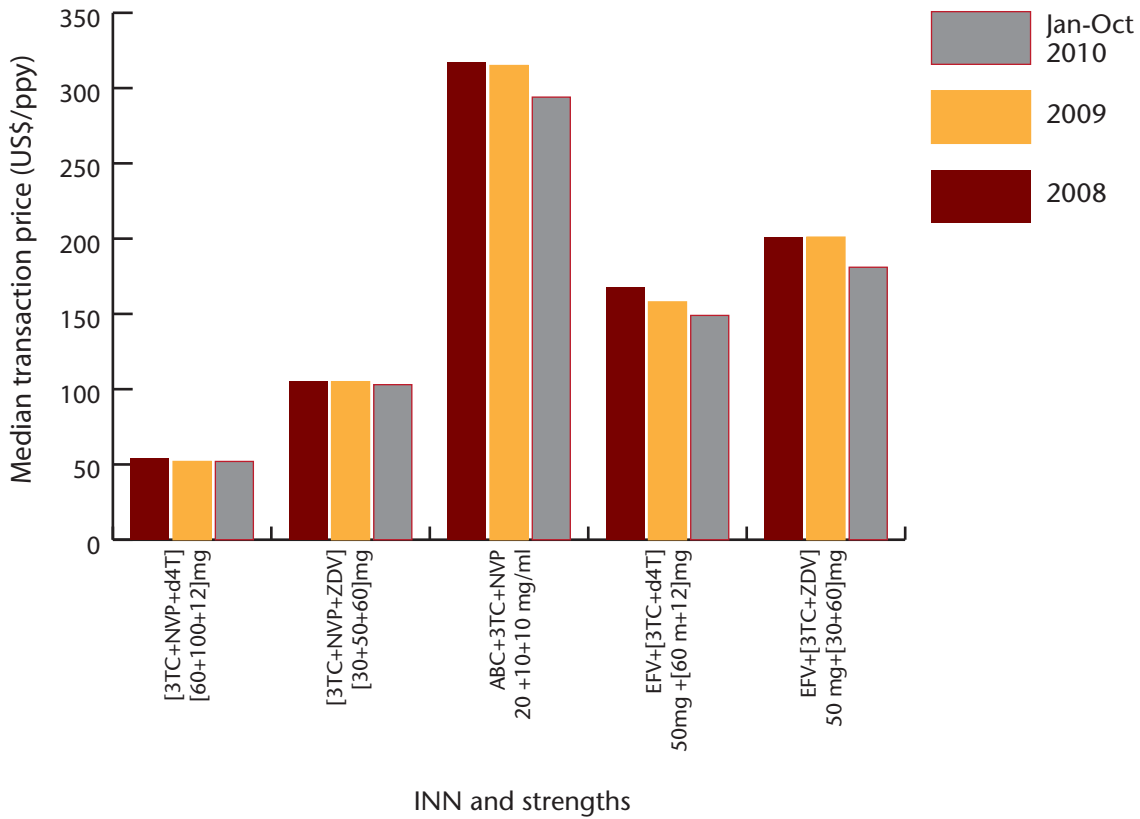


Fig. 3b: The price trend for the most commonly used *first-line regimens* for paediatric patients *in LMIC (infant of 10 kg)*

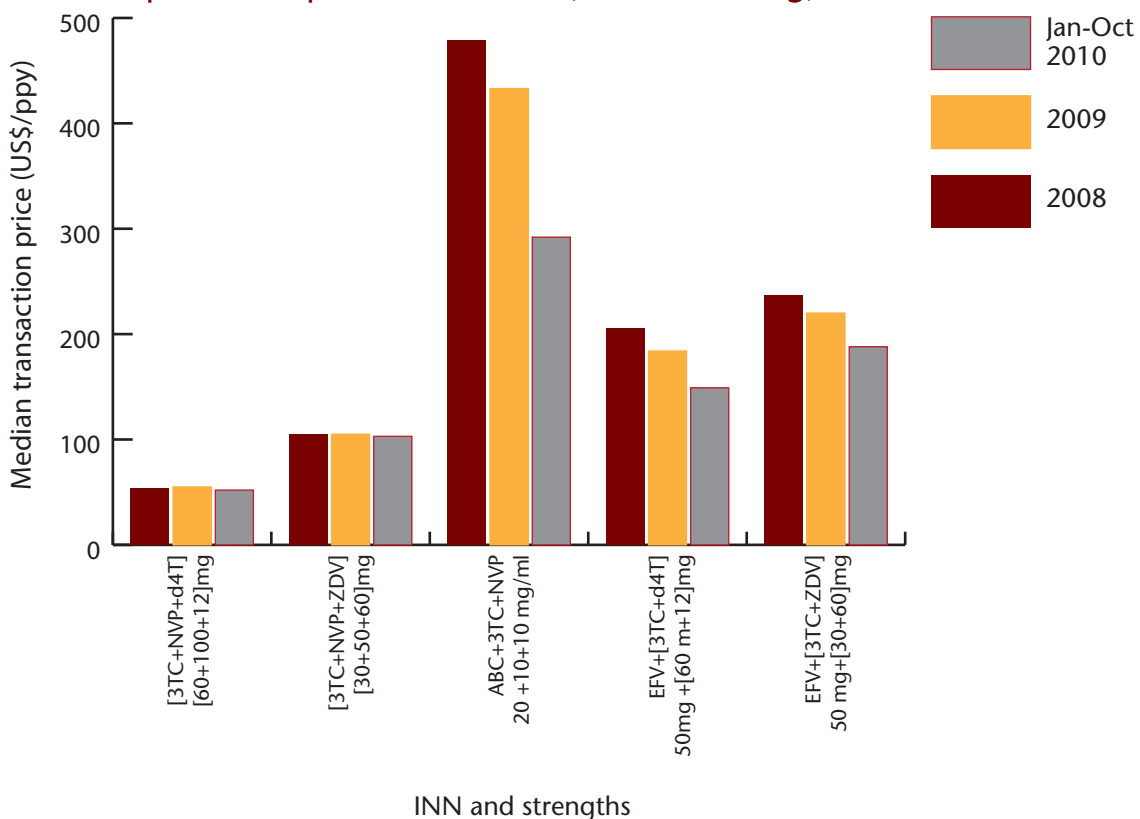
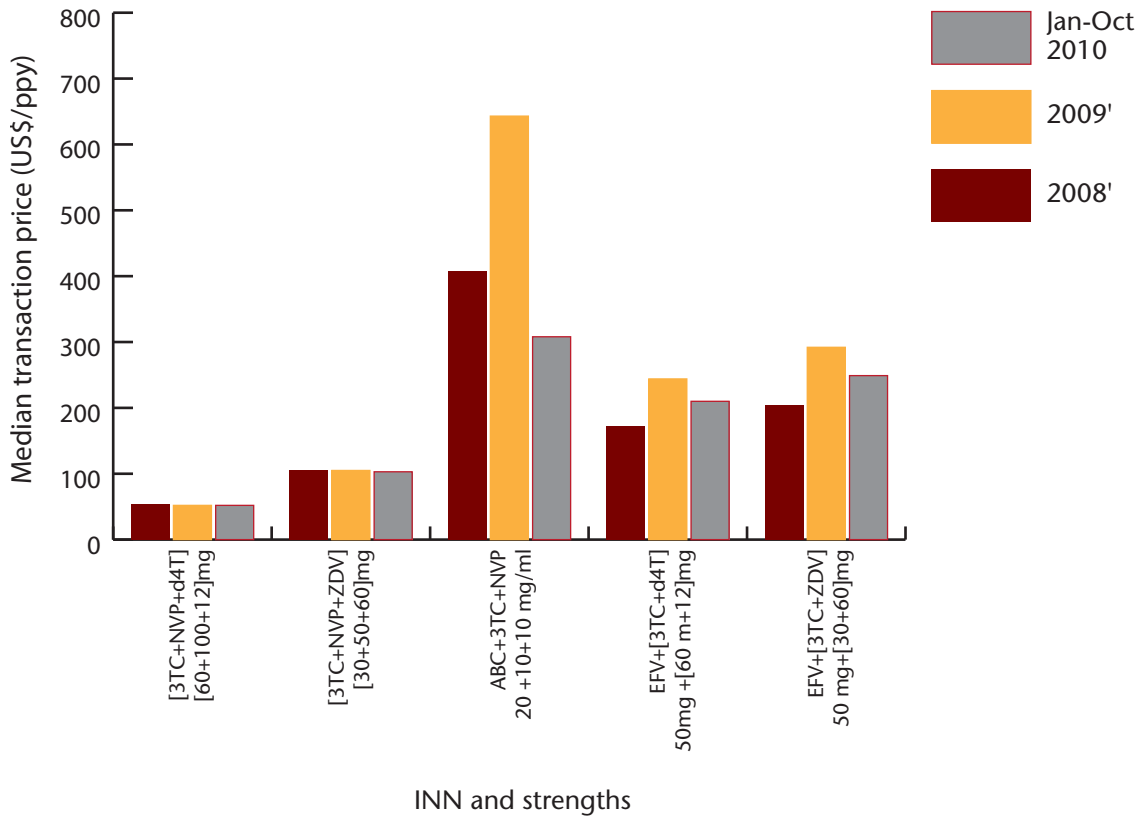


Fig. 3c: The price trend for the most commonly used *first-line regimens* for paediatric patients in UMIC (infant of 10 kg)



*Table 5: Summary table of price evolution between 2008 and 2010 in percentage in low-, lower-middle and upper middle countries for the most commonly used first-line regimens for for paediatric patients (infant of 10 kg)*

INN	LIC	LMIC	UMIC
[3TC+NVP+d4T] [60+100+12]mg	-3%	-3%	-3%
[3TC+NVP+ZDV] [30+50+60]mg	-2%	-2%	-2%
ABC+3TC+NVP 20 +10+10 mg/ml	-7%	-39%	-25%
EFV+[3TC+d4T] 50mg +[60 m+12]mg	-12%	-27%	+22%
EFV+[3TC+ZDV] 50 mg+[30+60]mg	-10%	-21%	+22%

The introduction of low-dose FDCs in solid form has had the same effect in very young children (body weight of less or equal to 10 kg) who, in the past, were only able to use liquid formulations or not adequate solid formulations. This has enabled a rapid decrease in the cost. The new low-dose FDC recommended by WHO for paediatric treatment<sup>10</sup>, 3TC+NVP+d4T (60+100+12mg) and [3TC+NVP+ZDV] [30+50+60 mg] have become available on the market. The cost of this first-line regimen (FDC consisting of 3TC+NVP+d4T) stabilized in October 2010 at around US\$ 52 in LIC, LMIC and UMIC. The same observation is valid for [3TC+NVP+ZDV] [30+50+60 mg] where the cost per patient treatment year in October of 2010 was US\$ 103 for the three country groups.

The price of the third most used formulation ABC+3TC+NVP 20 +10+10 mg/ml dropped by 7% in LIC, 39% in LMIC and 25% in UMIC. During the same period, EFV+[3TC+d4T] 50mg +[60 m+12]mg and EFV+[3TC+ZDV] 50 mg+[30+60]mg dropped in LIC and LMIC but jumped by 22% in UMIC which is the direct translation of the increase in the price of the EFV from USD 122 to USD170 (see table 5).

Fig. 3d: The price trend for the most commonly used *second-line regimens* for paediatric patients in LIC (infant of 10 kg)

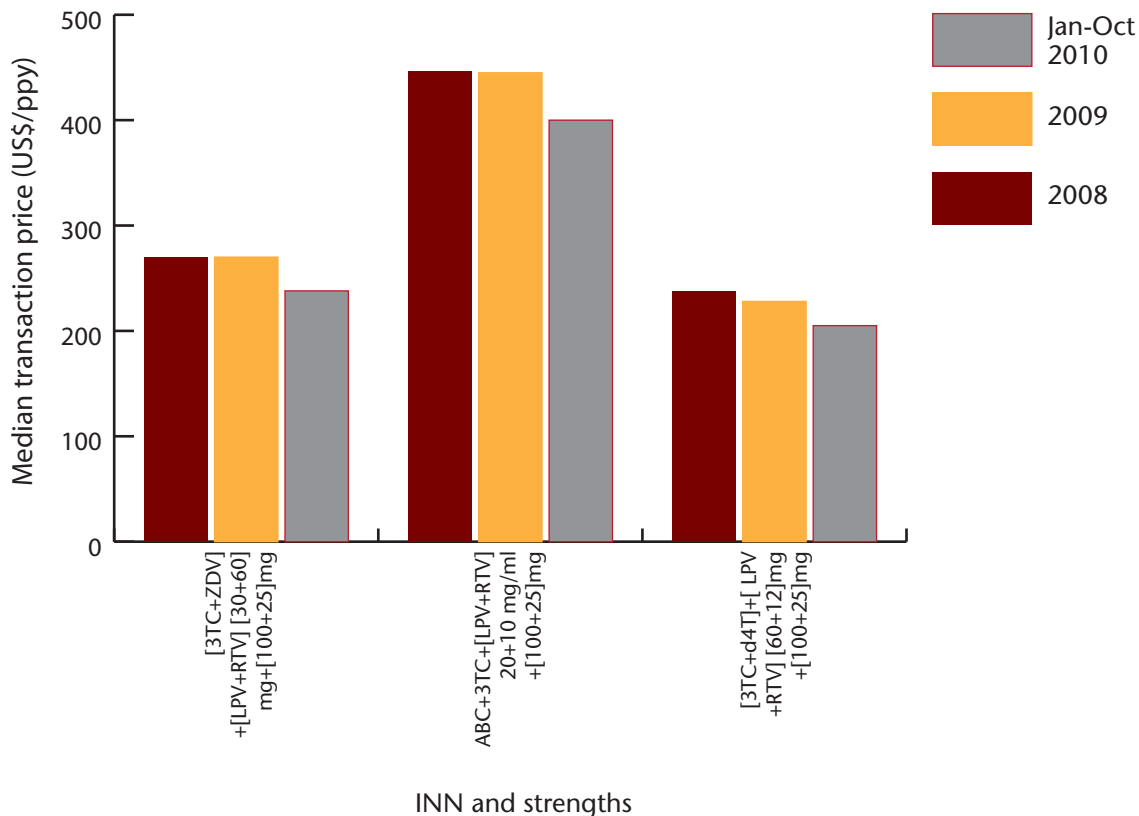


Fig. 3e: The price trend for the most commonly used *second-line regimens* for paediatric patients in LMIC (infant of 10 kg)

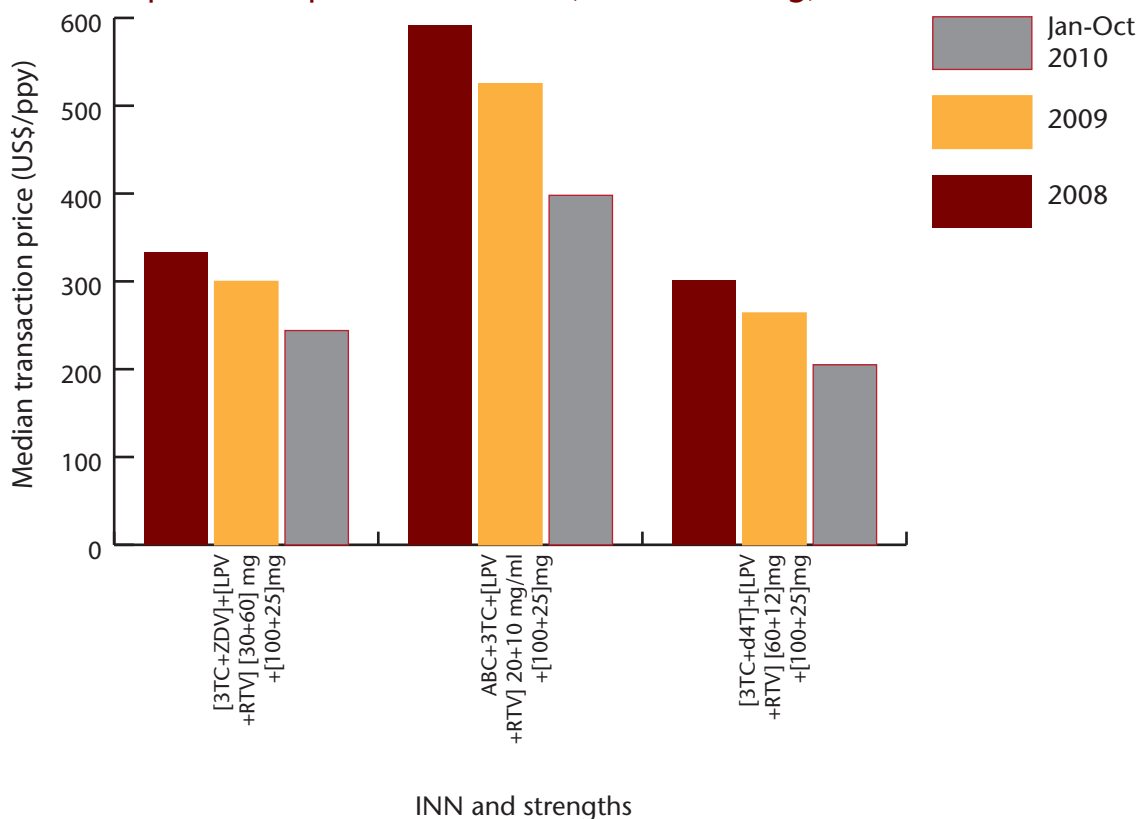


Fig. 3f: The price trend for the most commonly used *second-line regimens* for paediatric patients *in UMIC (infant of 10 kg)*

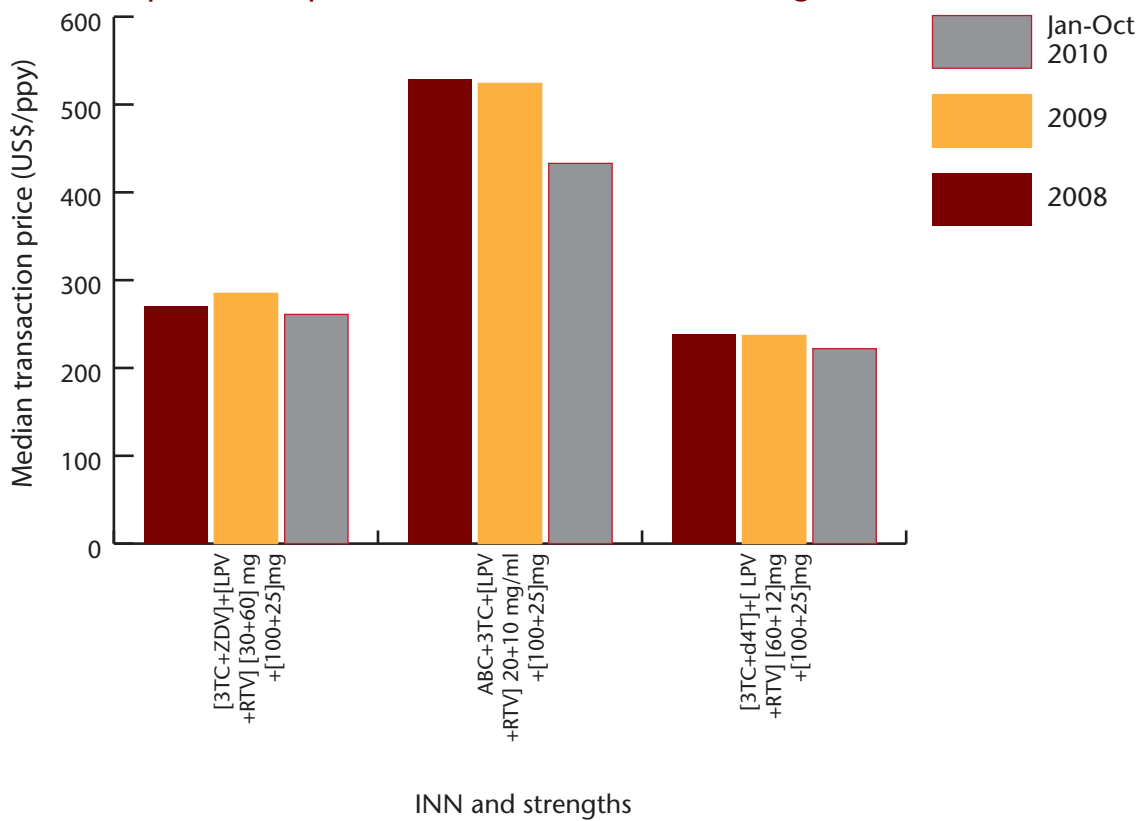


Table 6: Summary table of price decline between 2008 and 2010 in percentage in low-, lower-middle and upper middle countries for the most commonly used second-line regimens for paediatric patients (infant of 10 kg)

INN	LIC	LMIC	UMIC
[3TC+ZDV]+[LPV+RTV] [30+60] mg+[100+25]mg	-12%	-27%	-3%
ABC+3TC+[LPV+RTV] 20+10 mg/ml+[100+25]mg	-10%	-33%	-18%
[3TC+d4T]+[ LPV+RTV] [60+12]mg+[100+25]mg	-14%	-32%	-6%

The median price of medicines for paediatric patients (infant of 10 kg) major second-line regimens between 2008 and October 2010 followed a more considerable and constant downward trend (unlike in the 1st line, no sudden increase) than that observed in first line regimens though not with the same magnitude in the three groups. Within that period, the median price of the most commonly prescribed regimen for paediatric patient use<sup>17</sup>. [ZDV+ 3TC]+[LPV+RTV] [30+60] mg+[100+25]mg, dropped by 12% in LIC, 27% in LMIC and 3% in UMIC. The same trend was observed with the other two most prescribed second line regimens (see table 5 above).

The price decline can partly be explained by the prequalified and stringent regulatory approved of one generic version of LPV+RTV, thus more competition and the decision of LIC, LMIC and UMIC to procure them.

## *Conclusions*

The downward trend in the price of ARV medicines between 2004 and 2008 continued after 2008 for both adult and paediatric HIV treatments, although an unexplained jump was observed for some 1st line paediatric regimens. The price difference between the low and middle-income countries is now the lowest ever for both adult and paediatric treatments. Second-line regimens also became less expensive, but their cost remained 6 to 30 times higher than that of the least expensive first-line regimen. This general decrease observed in LIC, LMIC could be due to the increase competition within each segment of market (increase in number of manufacturers that provide prequalified formulation by WHO and those that are stringent regulatory authority approved e.g. USFDA. For paediatric treatments, the investment made by UNITAID to create a viable market and the development of better-fixed dose formulations have probably contributed to price decreases.

## *Acknowledgement*

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## Annex

Table 1: Median transaction price of *first-line ARV* medicines for adult treatment per patient per year (US\$/ppy) at a WHO recommended defined daily dose (DDD)

## 1a) Low-income countries

INN and strengths	Median transaction price (25th -75th Quartile range) (US\$/ppy)			
	DDD (tablets or capsules)	2008	2009	January - October 2010
d4T 30 mg	2	19 (19–29)	19 (18–19)	18 (18–25)
3TC 150 mg	2	37 (35–48)	31 (30–35)	29 (29–31)
3TC 300 mg	2	59 (59–59)	-	-
NVP 200 mg	2	41 (40–48)	39 (36–42)	32 (32–34)
3TC+d4T 150+30mg	2	53 (49–61)	44 (44–47)	40 (39–44)
3TC+NVP+d4T 150+200+30 mg	2	88 (83–93)	81 (75–87)	64 (61–71)
ZDV 300 mg	2	104 (99–114)	92 (89–99)	89 (86–100)
3TC+ZDV 150+300 mg	2	115 (114–129)	107 (106–109)	104 (102–107)
3TC+NVP+ZDV 150+200+300 mg	2	155 (144–164)	139 (138–147)	136 (133–137)
EFV 200 mg	3	186 (176–219)	186 (155–331)	117 (114–118)
EFV 600 mg	1	146 (134–173)	83 (70–109)	55 (54–64)
TDF 300 mg	1	166 (151–207)	151 (112–169)	89 (85–104)
TDF+FTC 300+200 mg	1	319 (208–319)	319 (208–319)	137 (125–143)
TDF+3TC 300+300 mg	1	173 (173–173)	140 (122–173)	114 (111–117)
TDF+FTC+EFV 300+200+600 mg	1	613 (613–613)	613 (246–613)	242 (242–242)
TDF+3TC+EFV 300+300+600 mg	1	-	-	213 (213–213)
ZDV+3TC+ABC 300+150+300 mg	2	3257 (3257–3257)	554 (471–636)	365 (365–365)

## 1b) Lower middle-income countries

INN and strengths	Median transaction price (25th -75th Quartile range) (US\$/ppy)			
	DDD (tablets or capsules)	2008	2009	January - October 2010
d4T 30 mg	2	26 (23-30)	19 (19-34)	19 (18-19)
3TC 150 mg	2	40 (37-45)	35 (34-38)	30 (29-32)
3TC 300 mg	2	-	-	-
NVP 200 mg	2	48 (43-51)	43 (41-46)	34 (32-34)
3TC+d4T 150+30mg	2	60 (48-60)	33 (33-34)	40 (39-40)
3TC+NVP+d4T 150+200+30 mg	2	100 (91-114)	76 (61-83)	70 (63-73)
ZDV 300 mg	2	113 (109-118)	104 (100-104)	89 (88-92)
3TC+ZDV 150+300 mg	2	124 (119-134)	113 (112-120)	102 (55-106)
3TC+NVP+ZDV 150+200+300 mg	2	169 (152-209)	116 (114-117)	139 (137-139)
EFV 200 mg	3	230 (195-447)	319 (169-343)	119 (114-122)
EFV 600 mg	1	169 (148-188)	95 (90-114)	56 (55-64)
TDF 300 mg	1	207 (177-256)	154 (150-272)	91 (87-97)
TDF+FTC 300+200 mg	1	372 (355-541)	392 (367-668)	156 (122-169)
TDF+3TC 300+300 mg	1	173 (173-173)	-	-
TDF+FTC+EFV 300+200+600 mg	1	1034 (1034-1034)	667 (666-668)	241 (241-241)
TDF+3TC+EFV 300+300+600 mg	1	-	-	-
ZDV+3TC+ABC 300+150+300 mg	2	-	-	365 (365-365)

## 1c) Upper middle-income countries

INN and strengths	Median transaction price (25th -75th Quartile range) (US\$/ppy)			
	DDD (tablets or capsules)	2008	2009	January - October 2010
d4T 30 mg	2	33 (30-34)	73 (36-193)	81 (57-82)
3TC 150 mg	2	48 (45-383)	73 (73-330)	31 (30-73)
3TC 300 mg	2	-	-	-
NVP 200 mg	2	69 (48-247)	250 (204-354)	35 (32-250)
3TC+d4T 150+30mg	2	53 (53-53)	47 (47-51)	39 (39-39)
3TC+NVP+d4T 150+200+30 mg	2	110 (96-166)	88 (86-91)	66 (65-69)
ZDV 300 mg	2	113 (101-128)	184 (101-473)	91 (90-184)
3TC+ZDV 150+300 mg	2	131 (126-252)	225 (225-1079)	103 (101-225)
3TC+NVP+ZDV 150+200+300 mg	2	161 (161-178)	160 (159-162)	136 (136-136)
EFV 200 mg	3	231 (193-375)	377 (198-650)	402 (121-594)
EFV 600 mg	1	193 (158-221)	162 (133-198)	57 (55-64)
TDF 300 mg	1	266 (238-299)	254 (187-344)	95 (84-350)
TDF+FTC 300+200 mg	1	475 (465-480)	385 (364-517)	137 (125-582)
TDF+3TC 300+300 mg	1	-	-	104 (104-111)
TDF+FTC+EFV 300+200+600 mg	1	-	-	242 (242-242)
TDF+3TC+EFV 300+300+600 mg	1	-	-	-
ZDV+3TC+ABC 300+150+300 mg	2	-	-	596 (596-596)

Table 2: Median transaction price of *second-line* ARV medicines (US\$/ppy) for adult treatment at a WHO recommended adult defined daily dose (DDD)

## 2a) Low-income countries

INN and strengths	Median transaction price (25th -75th Quartile range) (US\$/ppy)			
	DDD (tablets or capsules)	2008	2009	January - October 2010
ABC 300 mg	2	313 (280–358)	280 (237–282)	203 (194–224)
ABC+3TC 600+300 mg	1	-	280 (280–280)	274 (274–274)
ATV 150mg*	2	467 (467–587)	317 (317–317)	317 (317–317)
ATV 200mg*	2	587 (514–587)	515 (515–515)	-
DRV 300 mg*	2	-	1095 (1095–1095)	1095 (1095–1095)
ddl 100 mg	4	189 (187–310)	188 (187–236)	188 (187–188)
ddl 200 mg	2	311 (218–350)	201 (189–235)	160 (134–281)
ddl 250 mg	1	223 (215–223)	184 (158–223)	172 (123–200)
ddl 400 mg	1	288 (279–288)	261 (158–270)	246 (244–278)
ETV 100 mg	4	-	-	1022 (1022–1022)
FPV 700 mg*	2	-	-	-
IDV 200 mg*	8	-	-	-
IDV 400 mg*	4	406 (350–445)	406 (363–457)	406 (372–406)
LPV+RTV 200+50 mg	4	500 (500–574)	501 (501–575)	440 (414–488)
NFV 250 mg	10	1421 (1284–2501)	2118 (1603–2644)	1703 (1703–1703)
RAL 400 mg	2	-	-	2227 (2227–2227)
RTV 100 mg**	2	84 (83–114)	83 (83–130)	84 (84–90)
SQV 200 mg*	10	2737 (1350–3000)	1234 (1209–1642)	-

\* Protease inhibitor to be used boosted with ritonavir

\*\* The dose of ritonavir is given for its use as a booster of other protease inhibitors only

## 2b) Lower middle-income countries

INN and strengths	Median transaction price (25th -75th Quartile range) (US\$/ppy)			
	DDD (tablets or capsules)	2008	2009	January - October 2010
ABC 300 mg	2	350 (313–374)	271 (236–299)	206 (201–230)
ABC+3TC 600+300 mg	1	-	-	274 (274–279)
ATV 150mg*	2	4563 (1384–5110)	4497 (4210–4497)	2419 (1376–3462)
ATV 200mg*	2	437 (436–438)	-	4505 (4505–4505)
DRV 300 mg*	2	4563 (1384–5110)	5391 (4064–5672)	548 (548–548)
ddl 100 mg	4	212 (187–235)	217 (191–272)	188 (187–291)
ddl 200 mg	2	238 (233–794)	266 (241–286)	188 (134–189)
ddl 250 mg	1	799 (675–874)	190 (184–194)	159 (159–159)
ddl 400 mg	1	1267 (507–1302)	274 (251–468)	244 (244–244)
ETV 100 mg	4	-	-	1338 (1338–1338)
FPV 700 mg*	2	3215 (1430–5000)	1448 (1448–1565)	-
IDV 200 mg*	8	456 (456–457)	-	-
IDV 400 mg*	4	446 (389–457)	363 (363–363)	406 (361–406)
LPV+RTV 200+50 mg	4	1000 (574–1092)	1000 (575–1119)	575 (463–1000)
NFV 250 mg	10	2631 (2258–2631)	2704 (2329–2792)	2793 (2793–2793)
RAL 400 mg	2	-	-	-
RTV 100 mg**	2	283 (99–811)	762 (217–871)	126 (84–667)
SQV 200 mg*	10	2704 (2410–2767)	2651 (2651–2696)	1850 (1502–2198)

\* Protease inhibitor to be used boosted with ritonavir

\*\* The dose of ritonavir is given for its use as a booster of other protease inhibitors only

## 2c) Upper middle-income countries

INN and strengths	Median transaction price (25th -75th Quartile range) (US\$/ppy)			
	DDD (tablets or capsules)	2008	2009	January - October 2010
ABC 300 mg	2	411 (354–468)	365 (285–450)	213 (195–225)
ABC+3TC 600+300 mg	1	-	-	-
ATV 150mg*	2	-	4104 (3887–4322)	4103 (3886–4321)
ATV 200mg*	2	-	-	-
DRV 300 mg*	2	-	-	8468 (8468–8468)
ddl 100 mg	4	292 (289–323)	396 (315–397)	187 (185–311)
ddl 200 mg	2	220 (217–235)	280 (280–280)	306 (268–344)
ddl 250 mg	1	226 (200–997)	192 (171–209)	301 (226–313)
ddl 400 mg	1	642 (289–1199)	286 (112–346)	382 (365–388)
ETV 100 mg	4	-	-	-
FPV 700 mg*	2	1284 (1284–1287)	1290 (1290–1290)	1648 (1648–1648)
IDV 200 mg*	8	-	-	-
IDV 400 mg*	4	538 (439–636)	-	-
LPV+RTV 200+50 mg	4	4210 (2526–4502)	3168 (1073–3222)	497 (432–557)
NFV 250 mg	10	4840 (1470–4840)	4806 (4000–4823)	-
RAL 400 mg	2	-	-	-
RTV 100 mg**	2	329 (313–346)	699 (163–701)	626 (626–801)
SQV 200 mg*	10	2210 (2164–2257)	-	-

\* Protease inhibitor to be used boosted with ritonavir

\*\* The dose of ritonavir is given for its use as a booster of other protease inhibitors only

Table 3: Median transaction price of ARV medicines (US\$/ppy) for paediatric treatment (*infant weighing 5 kg*) at a WHO recommended paediatric DDD

## 3a) Low-income countries

INN and strengths	Median transaction price (25th -75th Quartile range) (US\$/ppy)			
	DDD (tablets or ml)	2008	2009	January - October 2010
ABC 20 mg/ml	4	91 (91–100)	91 (89–109)	88 (80–88)
ddl 10 mg/ml	8	362 (361–368)	275 (249–309)	312 (248–312)
ddl 25 mg	4	170 (170–170)	170 (168–175)	170 (170–186)
ddl 50 mg	2	112 (112–122)	116 (100–116)	116 (116–116)
EFV 30 mg/ml	3.25	116 (88–116)	112 (112–112)	112 (112–112)
EFV) 50 mg	2	18 (16–37)	59 (55–70)	54 (54–57)
3TC 10 mg/ml	6	59 (59–71)	17 (16–32)	17 (16–19)
LPV+RTV 80+20 mg/ml	2	100 (100–153)	100 (100–124)	88 (88–100)
NFV 50 mg/g	15	1421 (1391–1450)	1343 (1331–1356)	1318 (1318–1357)
NFV 250 mg	4	542 (526–1000)	847 (641–1058)	621 (621–651)
NVP 10 mg/ml	12	35 (35–40)	35 (35–65)	44 (40–44)
d4T 1 mg/ml	12	31 (29–53)	30 (29–37)	30 (29–32)
ZDV 10 mg/ml	12	44 (39–91)	64 (39–98)	38 (37–39)
3TC+d4T 30+6 mg	2	26 (22–26)	23 (23–25)	23 (23–23)
3TC+d4T 60+12 mg	1	25 (22–26)	20 (20–22)	20 (20–20)
3TC+NVP+d4T 30+50+6 mg	2	30 (26–30)	29 (26–29)	28 (28–28)
3TC+NVP+d4T 60+100+12 mg	1	27 (24–28)	26 (23–26)	26 (26–26)
3TC+ZDV 30+60 mg	2	41 (41–41)	41 (41–43)	36 (36–40)
3TC+NVP+ZDV 30+50+60 mg	2	53 (53–53)	53 (53–53)	52 (52–52)

## 3b) Lower middle-income countries

INN and strengths	Median transaction price (25th -75th Quartile range) (US\$/ppy)			
	DDD (tablets or ml)	2008	2009	January - October 2010
ABC 20 mg/ml	4	116 (100-142)	107 (102-121)	82 (71-83)
ddl 10 mg/ml	8	836 (692-980)	934 (431-978)	-
ddl 25 mg	4	135 (97-390)	352 (237-468)	170 (170-409)
ddl 50 mg	2	-	88 (88-109)	116 (116-116)
EFV 30 mg/ml	3.25	-	119 (119-119)	112 (112-148)
EFV) 50 mg	2	-	66 (63-67)	54 (54-54)
3TC 10 mg/ml	6	38 (21-54)	24 (1636)	17 (15-20)
LPV+RTV 80+20 mg/ml	2	228 (217-500)	200 (118-221)	88 (88-200)
NFV 50 mg/g	15	1779 (992-1779)	2139 (2139-2139)	-
NFV 250 mg	4	903 (473-1053)	1081 (931-1116)	1117 (1117-1117)
NVP 10 mg/ml	12	84 (58-122)	78 (62-85)	35 (33-36)
d4T 1 mg/ml	12	56 (51-117)	57 (30-57)	28 (27-28)
ZDV 10 mg/ml	12	78 (49-91)	92 (59-108)	38 (35-41)
3TC+d4T 30+6 mg	2	24 (23-25)	46 (46-46)	23 (23-23)
3TC+d4T 60+12 mg	1	25 (24-26)	23 (21-26)	20 (20-20)
3TC+NVP+d4T 30+50+6 mg	2	53 (53-53)	29 (29-29)	28 (28-28)
3TC+NVP+d4T 60+100+12 mg	1	27 (27-28)	28 (27-28)	26 (26-26)
3TC+ZDV 30+60 mg	2	-	44 (44-44)	40 (36-40)
3TC+NVP+ZDV 30+50+60 mg	2	-	53 (53-53)	52 (52-52)

## 3c) Upper middle-income countries

INN and strengths	Median transaction price (25th -75th Quartile range) (US\$/ppy)			
	DDD (tablets or ml)	2008	2009	January - October 2010
ABC 20 mg/ml	4	108 (92-144)	96 (96-96)	83 (82-85)
ddl 10 mg/ml	8	940 (427-974)	-	-
ddl 25 mg	4	224 (222-250)	368 (368-397)	417 (356-522)
ddl 50 mg	2	124 (115-213)	118 (118-118)	116 (116-116)
EFV 30 mg/ml	3.25	113 (113-113)	-	-
EFV) 50 mg	2	138 (85-139)	102 (86-663)	85 (58-126)
3TC 10 mg/ml	6	55 (55-72)	56 (47-56)	19 (17-37)
LPV+RTV 80+20 mg/ml	2	250 (236-392)	121 (88-168)	202 (101-204)
NFV 50 mg/g	15	-	-	-
NFV 250 mg	4	1936 (588-1936)	1924 (1922-1933)	643 (643-643)
NVP 10 mg/ml	12	87 (62-98)	198 (171-260)	34 (33-57)
d4T 1 mg/ml	12	566 (310-823)	44 (41-58)	30 (29-31)
ZDV 10 mg/ml	12	38 (36-94)	93 (72-124)	38 (35-48)
3TC+d4T 30+6 mg	2	-	23 (23-34)	23 (23-23)
3TC+d4T 60+12 mg	1	-	20 (20-20)	20 (20-20)
3TC+NVP+d4T 30+50+6 mg	2	-	29 (29-29)	28 (28-28)
3TC+NVP+d4T 60+100+12 mg	1	-	26 (26-26)	26 (26-26)
3TC+ZDV 30+60 mg	2	41 (41-41)	44 (44-44)	40 (40-40)
3TC+NVP+ZDV 30+50+60 mg	2	-	53 (53-53)	52 (52-52)

Table 4: Median transaction price of ARV medicines (US\$/ppy) for paediatric treatment (*infant weighing 10 kg*) at a WHO recommended paediatric DDD

4a) Low-income countries

INN and strengths	Median transaction price (25th -75th Quartile range) (US\$/ppy)			
	DDD (tablets or ml)	2008	2009	January - October 2010
ABC 20 mg/ml	10	228 (228–251)	228 (223–229)	207 (114–208)
ddl 25 mg	5	213 (212–213)	213 (208–213)	213 (213–293)
ddl 50 mg	3	173 (132–173)	173 (150–173)	173 (173–173)
ddl 100 mg	2	125 (94–155)	94 (94–118)	94 (93–94)
ddl 125 mg	1	94 (93–95)	130 (130–130)	52 (52–52)
EFV 50 mg	4	118 (118–135)	118 (109–140)	109 (109–109)
EFV 200 mg	1	65 (59–74)	62 (52–110)	39 (38–39)
3TC 10 mg/ml	10	30 (27–53)	29 (27–53)	28 (28–29)
LPV+RTV 80+20 mg/ml	3	150 (150–160)	150 (150–152)	132 (132–132)
LPV+RTV 100+25 mg	3	188 (187–188)	188 (188–188)	165 (165–165)
LPV+RTV 200+50 mg	1.5	188 (188–215)	188 (188–215)	168 (156–191)
NFV 250 mg	6	813 (780–1407)	1271 (962–1586)	1022 (977–1022)
NVP 10 mg/ml	20	59 (59–67)	58 (58–109)	59 (58–154)
NVP 200 mg	1	21 (20–24)	19 (18–21)	16 (16–17)
d4T 15 mg	2	18 (18–23)	18 (18–18)	18 (16–18)
d4T 20 mg	2	21 (21–27)	20 (18–21)	16 (16–17)
ZDV 10 mg/ml	20	67 (65–115)	107 (64–164)	73 (73–73)
ZDV 100 mg	2	37 (35–44)	37 (35–38)	35 (33–35)
3TC+d4T 150+30 mg	1	26 (24–30)	22 (22–24)	20 (19–22)
3TC+NVP+d4T 150+200+30 mg	1	44 (42–46)	41 (37–43)	35 (34–38)
3TC+d4T 30+6 mg	4	51 (45–53)	46 (46–51)	46 (46–46)
3TC+d4T 60+12 mg	2	50 (44–51)	40 (40–44)	40 (40–40)
3TC+NVP+d4T 30+50+6 mg	4	59 (52–61)	58 (52–59)	56 (56–56)
3TC+NVP+d4T 60+100+12 mg	2	54 (47–55)	52 (47–52)	52 (52–52)
3TC+ZDV 30+60 mg	4	83 (83–83)	83 (83–88)	73 (73–79)
3TC+NVP+ZDV 30+50+60 mg	4	105 (105–105)	105 (105–105)	103 (103–103)
ABC 60mg	4	-	-	131 (131–131)
ABC/3TC 60/30mg	4	-	177 (177–177)	158 (158–177)

## 4b) Lower middle-income countries

INN and strengths	Median transaction price (25th -75th Quartile range) (US\$/ppy)			
	DDD (tablets or ml)	2008	2009	January - October 2010
ABC 20 mg/ml	10	278 (243–363)	268 (255–304)	205 (179–208)
ddl 25 mg	5	168 (121–487)	151 (151–151)	213 (213–213)
ddl 50 mg	3	132 (132–730)	129 (129–129)	151 (140–162)
ddl 100 mg	2	106 (94–118)	109 (95–136)	94 (94–134)
ddl 125 mg	1	86 (74–99)	-	52 (52–52)
EFV 50 mg	4	154 (146–169)	132 (125–133)	109 (109–120)
EFV 200 mg	1	68 (64–131)	106 (56–114)	39 (38–52)
3TC 10 mg/ml	10	63 (36–90)	44 (27–64)	28 (26–34)
LPV+RTV 80+20 mg/ml	3	342 (326–750)	300 (178–332)	132 (132–300)
LPV+RTV 100+25 mg	3	800 (800–800)	213 (213–213)	165 (165–195)
LPV+RTV 200+50 mg	1.5	215 (215–375)	375 (215–419)	215 (173–375)
NFV 250 mg	6	1579 (1355–1579)	1622 (1510–1684)	1676 (1649–1685)
NVP 10 mg/ml	20	137 (77–145)	121 (101–141)	58 (55–59)
NVP 200 mg	1	24 (21–25)	21 (21–23)	17 (16–17)
d4T 15 mg	2	18 (18–21)	18 (18–18)	16 (16–16)
d4T 20 mg	2	18 (18–21)	26 (35–339)	16 (17–17)
ZDV 10 mg/ml	20	146 (73–146)	153 (98–180)	64 (58–69)
ZDV 100 mg	2	43 (37–48)	42 (37–43)	35 (34–35)
3TC+d4T 150+30 mg	1	30 (28–38)	22 (20–24)	53 (53–54)
3TC+NVP+d4T 150+200+30 mg	1	50 (46–57)	41 (33–42)	41 (41–42)
3TC+d4T 30+6 mg	4	49 (47–51)	92 (92–92)	46 (46–46)
3TC+d4T 60+12 mg	2	51 (49–51)	51 (41–51)	40 (40–40)
3TC+NVP+d4T 30+50+6 mg	4	52 (52–52)	58 (58–58)	56 (56–56)
3TC+NVP+d4T 60+100+12 mg	2	54 (54–55)	55 (55–55)	52 (52–52)
3TC+ZDV 30+60 mg	4	83 (83–83)	88 (88–88)	79 (73–79)
3TC+NVP+ZDV 30+50+60 mg	4	105 (105–105)	105 (105–105)	103 (103–103)
ABC 60mg	4	-	-	-
ABC/3TC 60/30mg	4	-	-	158 (158–158)

## 4c) Upper middle-income countries

INN and strengths	Median transaction price (25th -75th Quartile range) (US\$/ppy)			
	DDD (tablets or ml)	2008	2009	January - October 2010
ABC 20 mg/ml	10	249 (238-249)	241 (241-241)	219 (208-229)
ddl 25 mg	5	121 (121-121)	462 (462-462)	522 (444-652)
ddl 50 mg	3	97 (80-115)	-	173 (173-173)
ddl 100 mg	2	176 (121-268)	157 (137-178)	94 (93-156)
ddl 125 mg	1	-	-	78 (65-90)
EFV 50 mg	4	122 (122-122)	204 (172-1325)	170 (115-251)
EFV 200 mg	1	62 (61-70)	126 (66-217)	134 (40-198)
3TC 10 mg/ml	10	92 (76-106)	86 (66-98)	32 (28-62)
LPV+RTV 80+20 mg/ml	3	350 (339-361)	179 (131-252)	303 (151-306)
LPV+RTV 100+25 mg	3	187 (187-187)	-	182 (165-245)
LPV+RTV 200+50 mg	1.5	947 (255-1579)	204 (185-382)	186 (162-209)
NFV 250 mg	6	2904 (2398-2904)	2887 (2883-2899)	964 (964-964)
NVP 10 mg/ml	20	67 (67-160)	317 (207-402)	57 (55-96)
NVP 200 mg	1	24 (24-32)	125 (102-177)	17 (16-125)
d4T 15 mg	2	-	78 (69-82)	82 (50-82)
d4T 20 mg	2	20 (20-20)	185 (73-193)	80 (74-82)
ZDV 10 mg/ml	20	61 (61-152)	188 (142-251)	64 (58-80)
ZDV 100 mg	2	-	-	99 (99-99)
3TC+d4T 150+30 mg	1	26 (26-26)	35 (35-35)	19 (19-19)
3TC+NVP+d4T 150+200+30 mg	1	42 (42-52)	46 (46-46)	33 (33-35)
3TC+d4T 30+6 mg	4	83 (83-83)	-	46 (46-46)
3TC+d4T 60+12 mg	2	-	-	40 (40-40)
3TC+NVP+d4T 30+50+6 mg	4	-	-	56 (56-56)
3TC+NVP+d4T 60+100+12 mg	2	-	-	52 (52-52)
3TC+ZDV 30+60 mg	4	83 (83-83)	-	79 (79-79)
3TC+NVP+ZDV 30+50+60 mg	4	-	-	103 (103-103)
ABC 60mg	4	-	-	-
ABC/3TC 60/30mg	4	-	-	-

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