



Health Action International (HAI) is an independent, global network working to increase access to essential medicines and improve their rational use through research excellence and evidence-based advocacy <http://www.haiweb.org>

## Being sick and needing medicines is a costly misfortune in many countries – A one day snapshot of a medicine's price across 93 countries

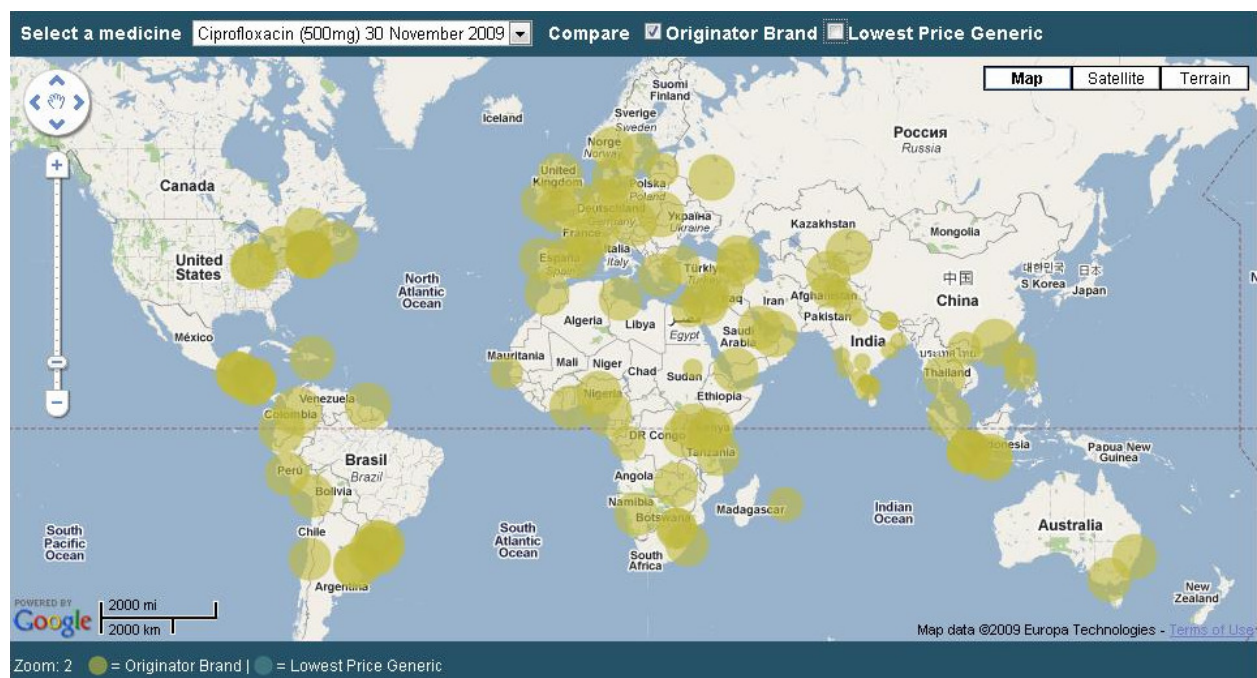
When you are sick the price of a medicine matters – especially if you are one of the millions of people living in poverty in many countries around the world. Medicines are inaccessible for many people; they are either unavailable in the public sector, or patients cannot afford to be covered by a medical reimbursement scheme. People who face this dilemma are either forced to purchase medicines at full price in the private sector, go without, or buy a partial course of treatment.

To illustrate the issue of high prices, Health Action International (HAI) undertook a one day global 'snapshot' of the price of ciprofloxacin. Ciprofloxacin is a broad spectrum antibacterial used to treat various common infections, with a usual adult dose of 250-750mg twice daily for up to 14 days. The medicine has been off-patent in the US<sup>i</sup>, Europe and elsewhere for at least than 5 years and numerous generic versions are manufactured throughout the world.

Individuals from HAI's extended network and partners collected the price which a patient would have to pay if they paid the full price (as opposed to a co-payment amount where reimbursement systems exist) for ciprofloxacin 500mg tablets<sup>ii</sup> in their nearest private retail pharmacy on 30 November 2009. Prices were collected for both the originator brand product manufactured by Bayer<sup>iii</sup> and the lowest priced generic equivalent in the pharmacy.

The map below shows the price for a 7 day treatment course (14 tablets) in US\$ using the exchange rate of 30 November 2009 for the Bayer originator product in each location where data was collected<sup>iv</sup> - the larger the 'bubble', the higher the price. An interactive form of this map is on HAI's website ([www.haiweb.org/medicineprices](http://www.haiweb.org/medicineprices)), where prices of the lowest priced generics can also be viewed. These prices should not be considered representative of the situation in a given country, since great price variation exists within some countries, and they only report the final stage of the supply chain<sup>v</sup>. However, they are indicative of what patients would have to pay, if paying the full retail price, in those pharmacies on that day.

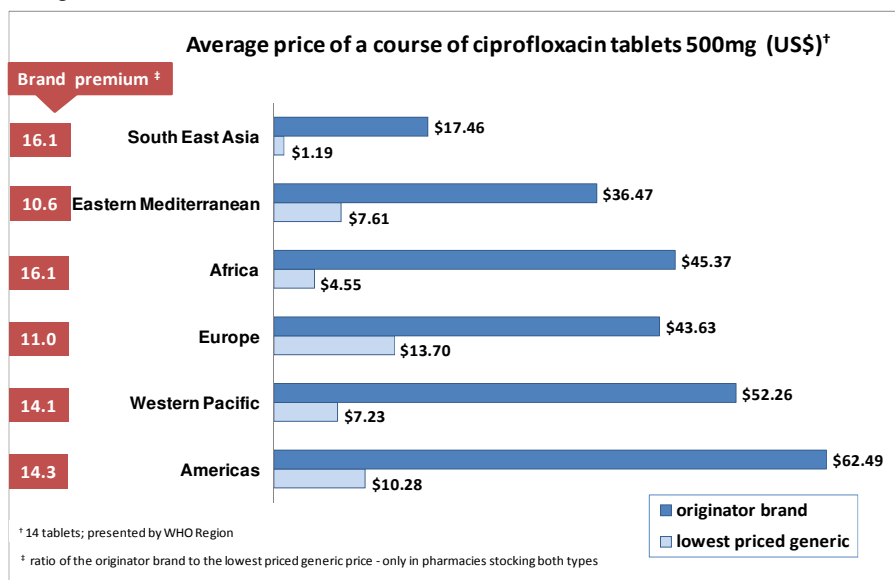
The price a patient would pay for a course of the originator brand product in the private sector was highest in Colombia at more than 200 times the price in 5 Asian countries where the price of generics was lowest - a difference of almost 20,000%<sup>vi</sup>.



### Prices in South East Asia are much lower than in other regions

As shown in the chart, the average price a patient would pay for a course of treatment with ciprofloxacin varies greatly across regions; from US\$17.46 in South East Asia to US\$62.49 in the Americas for the originator brand, and US\$1.19 in South East Asia to US\$13.70 in Europe for the generic.

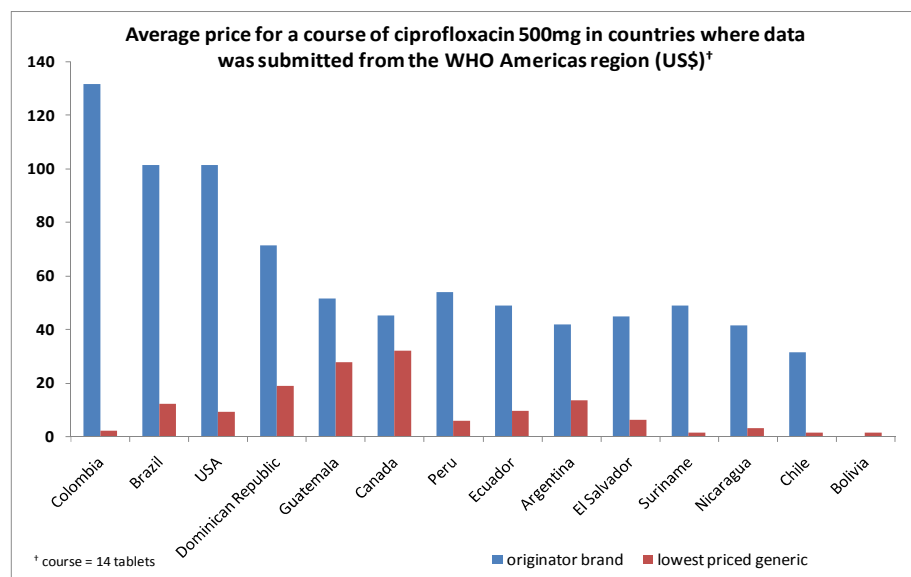
The originator brand was on average 10-16 times the price of the lowest priced generic across the regions, including in the South East Asia region where prices for the brand and generic product were on average lowest<sup>vii</sup>.



### Prices vary greatly within a region

The prices patients pay between countries within a region were also highly variable; the chart below shows data for countries in the Americas (the region with the highest average price for the originator brand). The price of the originator brand ranged from an average of US\$31 in Chile to about US\$131 in Colombia; and the price of generics ranged from just over US\$1 in Bolivia to US\$32 in Canada.

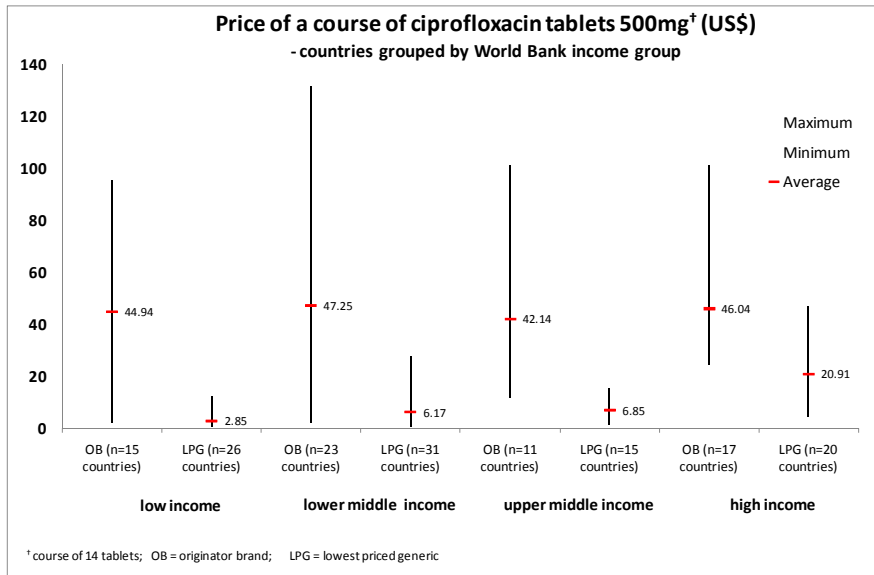
Colombia had the largest brand premium, with the originator brand 60 times the price of the lowest priced generic. By contrast, in Canada the originator brand price was only 40% more than the generic which was high-priced compared to other countries in the region<sup>vii</sup>.



***Inequitable pricing –originator brand price is unrelated to the income level of the country***

The chart below shows the price a patient would pay for a course of treatment in countries grouped by World Bank income level. For the originator brand (OB), the average price (indicated in red) showed very little variation across the different income levels. A different picture is seen for lowest priced generics (LPG) where the average price (also indicated in red) decreased as the wealth of the country decreased (from about US\$ 20 in high income countries to about US\$ 3 in low income countries).

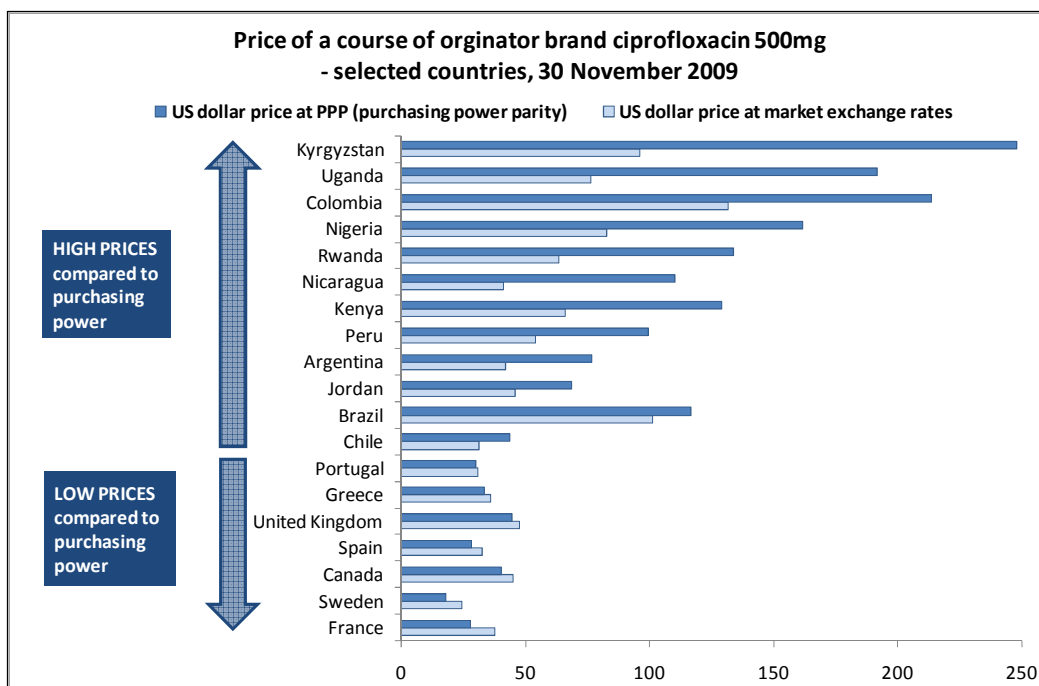
The variation in price across countries within each income level was greater for the originator brand compared to the generics. For example, in lower middle-income countries the originator brand price varied from US\$ 2 to US\$ 131 whereas generics ranged from less than US\$ 1 to US\$ 27.



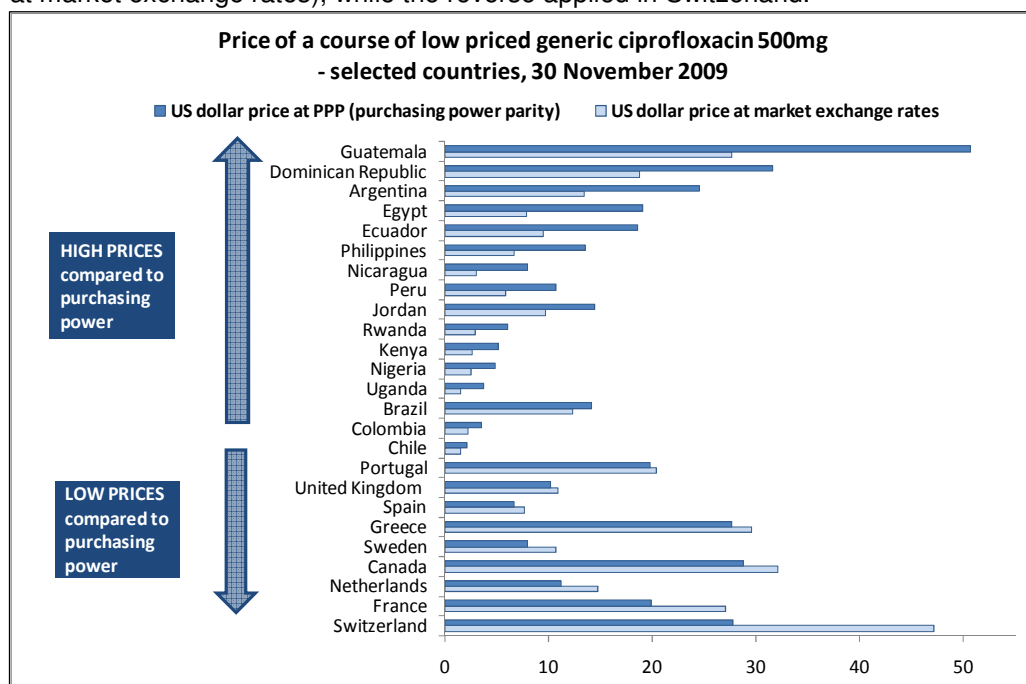
***Purchasing power: ciprofloxacin can be considered as expensive in many countries***

Since theoretically currencies should trade at the rate that would make the price of goods the same in each country, purchasing power is a good indicator of how expensive goods are. Where the price in terms of purchasing-power parity is greater than the price at market exchange rates, the goods can be considered as expensive in that country. Likewise where the price in terms of purchasing-power parity is less than the price at market exchange rates, the goods can be considered to be low priced.

The price for the originator brand in Kyrgyzstan was extremely high at US\$ 248 at purchasing-power parity (and a much lower price at market exchange rates), whereas it was low in France at only US\$ 28 (with a similar price at market rates), illustrating that in some countries the prices are too high.



Similarly for generics, the prices at purchasing-power parity were expensive in a number of countries. In Guatemala, the price of a course of a generic was high, at US\$ 51 at purchasing power parity (and US\$28 at market exchange rates), while the reverse applied in Switzerland.



### Conclusions

- Generic ciprofloxacin is available at much lower prices than the originator brand product
- In many countries, the price of the generic versions could be much lower and more affordable
- The average price for the Bayer originator brand product was consistent across countries of different income levels

### Recommendations

To improve treatment affordability, interventions are needed to **increase the use of low priced generics**. Governments need to:

- Ensure only good quality medicines are on the market
- Mandate generic substitution and create incentives for the dispensing of low priced generics
- Ensure the public has easy access to information about the price they should pay for a medicine
- Encourage active involvement of consumer and health professional organisations in education initiatives about the use of generic medicines
- Remove taxes and duties on medicines, and regulate margins in the supply chain

For patients who cannot afford even the lowest priced generics purchased in the private sector, governments must provide essential medicines free of charge in the public sector, and ensure adequate financing and efficient supply systems to prevent stock-outs.

This snapshot of the price of ciprofloxacin is useful in illustrating prices across the world. However, governments need to continuously monitor prices, as well as availability and affordability, in various sectors and regions within their country. More important is to act on the findings to develop policies and strategies to improve medicine affordability and availability, monitor the outcomes and adapt to the continuously changing environment.

WHO/HAI has a tool available to survey medicine prices and availability, and is developing in-depth reviews on pricing policy options (see [www.haiweb.org/medicineprices](http://www.haiweb.org/medicineprices)).

<sup>i</sup> In the US, the FDA granted the German pharmaceutical company Bayer AG marketing authorisation for its brand of ciprofloxacin in the US, Cipro<sup>®</sup> in 1987; the US patent expired in late 2003; the patent expired in Germany around 2000.

<sup>ii</sup> or capsules.

<sup>iii</sup> Bayer markets ciprofloxacin under the following trade names Cipro<sup>®</sup>, Ciproxin<sup>®</sup>, Ciproxine<sup>®</sup>, Ciprobay<sup>®</sup>, Baycip<sup>®</sup>, Ciflox<sup>®</sup>

<sup>iv</sup> Exchange rates accessed on 30<sup>th</sup> November 2009 at <http://www.oanda.com/currency/converter/>

<sup>v</sup> The final patient price is composed of the manufacturer's selling price plus mark-ups and other charges in the supply chain

<sup>vi</sup> Price of originator brand in Colombia = 131.47 US\$; price of generics in Indonesia (US\$ 0.66), Laos (US\$ 0.59), Myanmar (US\$ 0.42), Sri Lanka (US\$ 0.57), Vietnam (US\$ 0.66)

<sup>vii</sup> Ratios of brand premium calculated based on an analysis of only those pharmacies stocking the originator brand and a generic product