

The UNITAID Patent Pool

Seeking Effective and Sustainable Innovation and Access for AIDS Drugs

Emi MacLean
Médecins Sans Frontières
Campaign for Access to Essential Medicines
emi.maclean@newyork.msf.org
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MSF HIV/AIDS TREATMENT PROGRAMMES

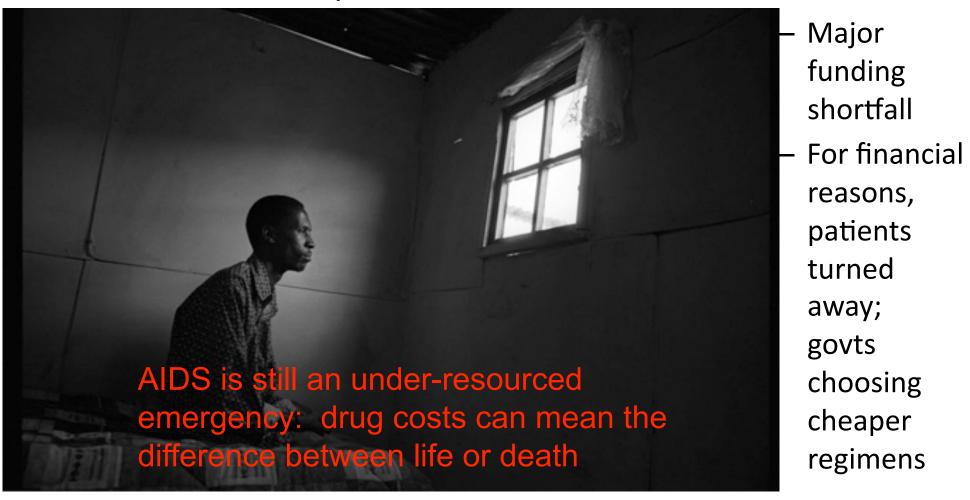
data collected April 2008



MSF PROGRAMMES ARE CURRENTLY PROVIDING ANTIRETROVIRAL TREATMENT TO MORE THAN 140,000 PATIENTS (10,000 OF WHOM ARE CHILDREN) IN 27 COUNTRIES*

Yet the needs remain enormous

- Only 1/3 of those in need with access to AIDS treatment in developing countries
- 2d and 3d line, pediatric formulations even less available



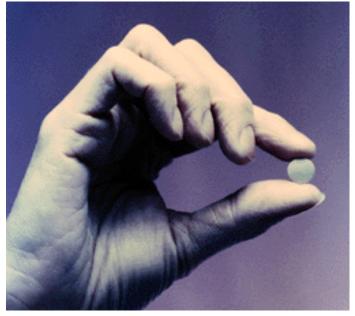
Antiretroviral Treatment Scale-Up: Fixed Dose Combinations and the Absence of Patent Barriers

- Triomune (3TC, D4T, NVP) is a FDC produced by Cipla. It only exists in generic form.
- Only possible to create Triomune FDC because India's patent laws before 2005 did not recognize product patents for the 3 drugs.
- Initial cost of \$350 pp/py (2001) and now \$87 pp/py (2009).

Why Is An Affordable FDC Important?

- 75% of countries recommend a FDC as part of national guidelines.
- Simplified guidelines for widespread and accelerated roll-out.
- Improved adherence with smaller quantity of pills and fixed dosage.
- Drug costs are a limiting factor in achieving universal access.
- Drug costs increasingly important in tightening economic climate.





The Triomune Story

An imperfect story....

 Stavudine with poor long-term tolerability, and adherence issues. No longer recommended for use by the WHO.

....but one that would nevertheless be impossible with newer drugs today.

- Post 2005 modifications in Indian patent law limit generic competition of newer drugs.
- Many drugs needed in developing countries today are patented for



Medical Needs

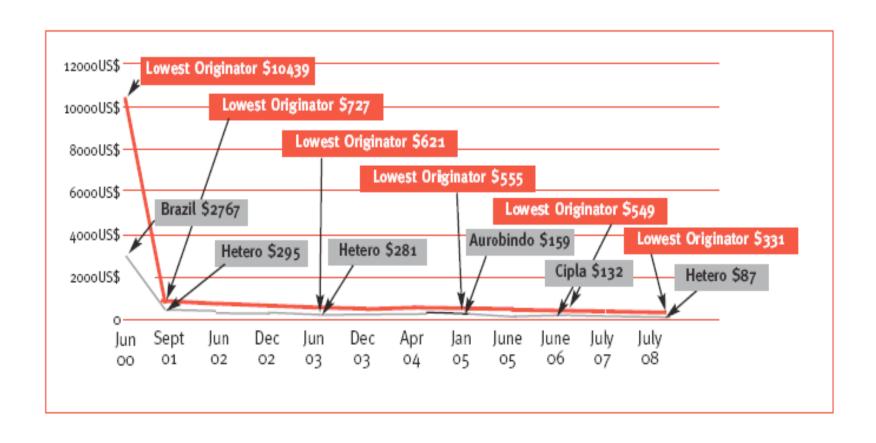
Do the drugs available <u>meet the needs</u> of the population in developing countries?

Are the **right combinations** available?

Are the drugs **formulated for children and adults** in developing countries? (Refrigeration requirements, lifespan, taste, etc.)

Are the drugs **affordable** for developing country populations?

"Generics fuel AIDS Program" (WSJ 31 July 2008)



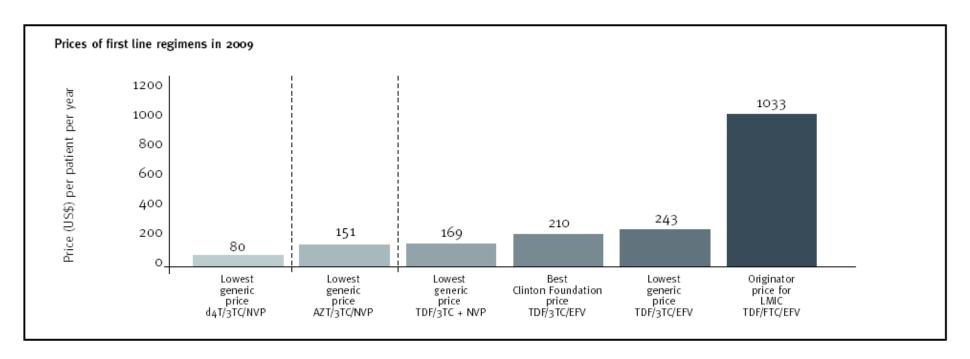
But ...Times Have Changed

- 2005: WTO TRIPS Agreement fully implemented globalizing patent rules
- Medicines become patentable everywhere
 - India started granting product patents following amendment of the Patents Act in 2005
 - Brazil, Thailand



Need for newer drugs: a better first line regimen

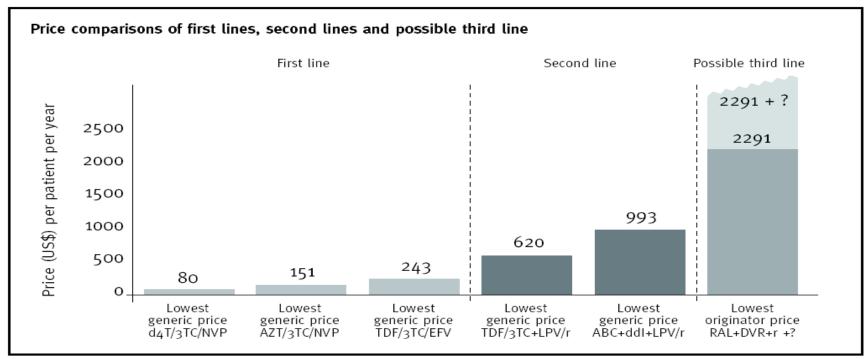
- stavudine no longer best care -



Source: MSF briefing document: HIV/AIDS treatment in developing countries: the battle for long term survival 2009



Need for newer drugs: switch to new regimens to keep people alive



Flexibilities Exist and Must Be Used

- Delayed implementation for developing countries (2005 for India, 2016 for LDCs)
- Parallel Importation (Article 6: open to member states)
- Compulsory Licensing (Article 31: use without authorization of rights holder)
 - Reasonable effort to obtain authorization; limited scope and duration; inform the rights holder and provide remuneration
 - Primarily for the domestic market of the invoking nation
- Doha Declaration (2001)
 - "The TRIPS Agreement does not and should not prevent Members from taking measures to protect public health"
 - Reaffirmed TRIPS flexibilities: compulsory license, not only in cases of emergency; the
 right to determine what constitutes national emergency or extreme case of urgency,
 (easier and faster CL); the right to determine national parallel importation regimes;
 extension of TRIPS deadline for LDCs to 2016
- August 30th Agreement (2003): the "expeditious solution" for countries without manufacturing capacity to CL conundrum
 - Temporary waiver of CL domestic use restriction to address public health problems.
 - But with limitations and arduous process

Health Before Patents

Limitations on Available Mechanisms for Innovation and Access

- <u>Differential pricing</u>
 - Discounts not steep enough and not as effective as generic competition
 - No solution to patent barriers for innovation (i.e., FDCs, pediatric formulations)
- "Voluntary" licenses
 - Restrictions limit full effect of generic competition e.g., trade in API, export
 - Rare and often response to threats e.g., CL or legal action
- Compulsory and government use licensing
 - Dramatic price decreases
 - Thailand => EFV price 1400 Baht (45\$) to 615 Baht (19\$) a bottle.
 - Brazil => EFV 77% price drop ==> increase of patients from 23.300 to 75.000
 - But: Harsh international criticism (Section 301, trade pressures) and company retaliation (e.g. Abbott refusal to make new drugs available in Thailand)
- <u>Limitations on patentability</u>
 - LDC's exclude product patents when patented
 - India strict patentability criteria (Section 3d); patent grant oppositions
 - But: efforts to weaken Indian generic pharmaceutical production Novartis' challenge to Section 3d of Indian Patents Act, political efforts by US Chamber of Commerce, USPTO and Pfizer to weaken Section 3d, etc.

Why a Patent Pool?

- Newer ARVs and 2d, 3d line ARVs more expensive and out of reach
- Need for drugs responsive to patient needs
- In TRIPS era, generic competition no longer reliable for lower prices
- Current system threatens scale up of treatment access, availability of appropriate drugs, long-term survival

Need for more systematic approach ... NOW

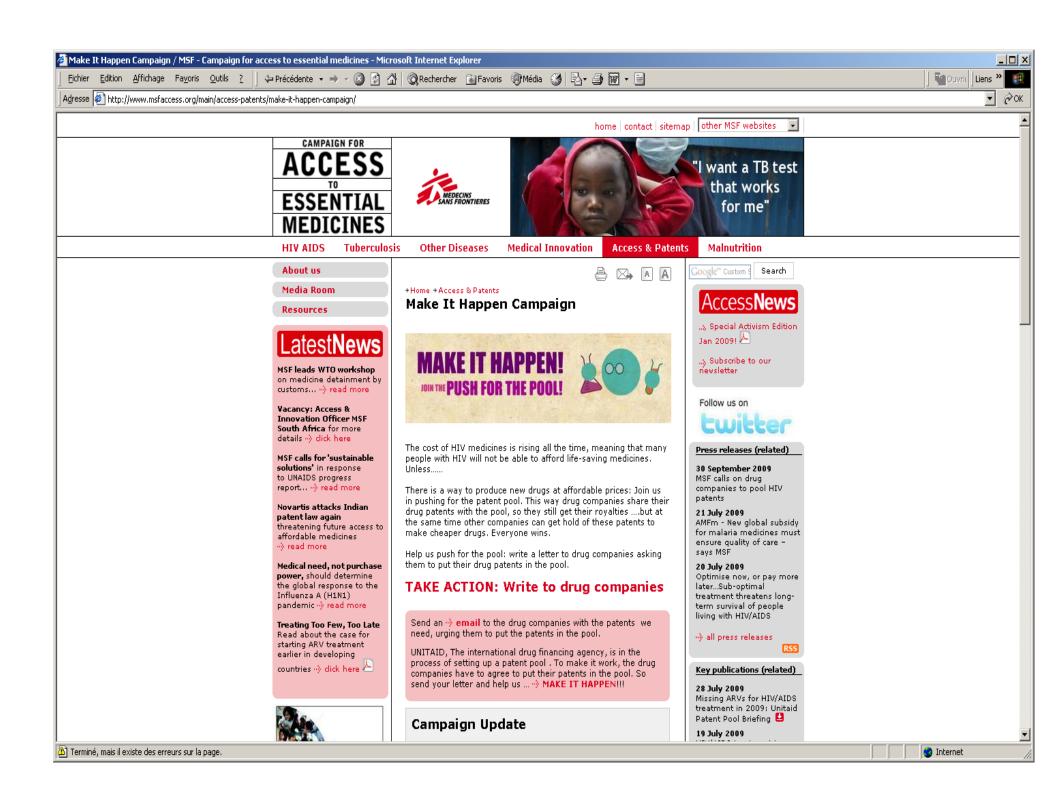
Patent Pool for Innovation and Access *Primary Needs*

Access:

Decrease price of newer first-, second-, and third-line
 ARVs by increasing the number of generic producers

Innovation:

- Encourage the development of first- and second-line
 FDCs by overcoming patent barrier
- Encourage the development of **pediatric** first- and second-line formulations
- Encourage the development of formulations adapted to developing country needs



What Molecules Should Be in the Pool?

MSF's Perspective

| Company | Patents Requested | Headquarters |
|-----------------------------|--|-------------------------------------|
| Abbott | Lopinavir (LPV) Ritonavir (r) | US (Abbott Park, Chicago, Illinois) |
| Bristol-Myers Squibb | Didanosine (ddl) Atazanavir | US (New York, NY) |
| Gilead Sciences | Tenofovir (TDF) Emtricitabine (FTC) GS-9350 Elvitegravir | US (Foster City, San Francisco, CA) |
| Merck | Efavirenz (EFV) Raltegravir | US (Whitehouse Station, NJ) |
| Pfizer | Maraviroc (MVC) | US (New York, NY) |
| Sequoia Pharmaceuticals | SPI-452 | US (Gaithersburg, MD) |
| Johnson & Johnson / Tibotec | Darunavir Etravirine Rilpivirine | US (Langhorne, PA) |
| Boehringer Ingelheim | Nevirapine (NVP) Tipranavir | Germany |
| GlaxoSmithKline (GSK) | Lamivudine (3TC) Abacavir Fosamprenavir S/GSK 1349572 | England |

Why these drugs?

• FDCs

- First-line regimens: need for TDF-based triple combinations
- Second-line regimens: LPV/r or ATZ/r, Darunavir/r

Pediatric ARVs

- Of 22 approved ARVs: 6 have no pediatric indication, 7 have no pediatric formulations available
- Patent barriers not the only issue: need additional incentives (i.e., clinical trials, funding for purchase to guarantee market)

New classes of drugs

- Would otherwise be blocked for 20 year patent term
 - Integrase inhibitors: raltegravir, elvitegravir
 - Entry inhibitors: maraviroc (MVC)
 - New booster to avoid ritonavir monopoly: GS 9350, SPI 452
 - New NNRTIs: rilpivirine, etravirine

No patents yet in the pool

But interest among companies

We believe if structured appropriately, UNITAID's patent pool can play a critical role in expanding access to antiretroviral treatment for patients around the world by encouraging the development of new fixed-dose combinations and pediatric formulations, lowering prices, while respecting intellectual property.

- Gregg Alton, Gilead senior vice president

Terms and conditions being decided

Details of the licenses, remuneration and governance structure crucial

Middle income countries a key sticking point

An Effective Pool, Not a Pool at Any Cost

- AVOID UNNECESSARY PATENTS: TRIPS flexibilities, public health safeguards, strict patentability criteria
- Cannot hamper ACCESS TO COMPULSORY LICENSES and other available mechanisms for access and affordability
- Based on MEDICAL NEEDS: must include the right drugs, including newer medicines
- Based on ECONOMIC REALITIES: must have a broad enough market, i.e. with middle income countries as both manufacturers and beneficiaries so that there are economies of scale attractive for generic producers
- Based on ACCESS NEEDS: low-income and middle-income developing countries must be beneficiaries given the wide income disparities and need for lower cost treatments and adapted medicines in middle-income countries



Conclusion

- The medicines patent pool is a unique opportunity.
- The pool can provide a sustainable solution for access and innovation shortfalls due to patent barriers.
- Voluntary approach to inclusion of patents in pool can avoid confrontation and litigation.
- Doing nothing is not an option: patent barriers can mean life or death for millions.
- The patent pool must be effective: based on medical needs and serving people living with HIV/AIDS in the whole of the developing world.

The Patent Pool

Because patients cannot wait 20 years for the right drugs. And we know what they are.



For more information, please visit: www.msfaccess.org.