



# PREVENTION OF HEALTH CARE-ASSOCIATED HIV INFECTION

Medical treatment is intended to save life and improve health. For many patients throughout the world, however, the treatments that are prescribed to benefit them actually cause them direct harm and may even result in their deaths.

UNAIDS estimates that, worldwide, there will be 45 million new HIV infections by 2010 if efforts to fight the pandemic are not stepped up. Without efforts to scale up the prevention of health care-associated HIV transmission, up to 4 million of these infections will result from unsafe blood transfusions, unsafe medical injections and other procedures performed in the absence of universal precautions.

Further, basic universal precautions are required to protect both patients and health workers because, as the SARS outbreak demonstrated, health care facilities become disease amplifiers in the absence of effective infection control measures. Every new infection will, in turn, contribute to a widening pool of infection in the general population.

Each health care-associated infection is preventable - and therefore unacceptable.

WHO has launched the 3 by 5 initiative to provide antiretroviral treatment for three million people living with HIV/AIDS by 2005. The effectiveness of this strategy will be directly undermined without interventions of proven effectiveness to prevent the health care-associated transmission of HIV.



Photocredit: Lysiane Maurice

*Protecting the vulnerable from HIV infection*



## PREVENTING HIV TRANSMISSION DUE TO UNSAFE BLOOD TRANSFUSION

In the absence of any blood safety interventions, up to 300 000 HIV infections could be transmitted annually through unsafe transfusions in the 34 countries with the highest burden of HIV/AIDS, given the prevalence of HIV in the general population (data extrapolated from the WHO Global Database on Blood Safety, 2000-2001).

The majority of these 34 countries require continuing support to meet achievable targets for blood safety. Only 8 have blood programmes based entirely on voluntary non-remunerated blood donation, only 9 achieve 100% screening of donated blood for HIV and, in the remaining 25 countries, the regularity and quality of testing is not assured. Many others require similar support to develop safe blood programmes.

Countries that have implemented well-defined strategies for blood safety have shown how it is possible to prevent the transmission of infection through transfusion, including countries with a high seroprevalence of infection.

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**Zimbabwe, where 33.4% of the adult population are HIV positive, faces major challenges in ensuring a safe blood supply. Despite extreme constraints, the national blood transfusion service's policy to recruit only blood donors who are at low risk for HIV transmission, coupled with stringent donor selection procedures, results in only 0.25% of units of blood testing positive for HIV among regular donors and 0.89% among new donors. These units are discarded and the donors are excluded from further donation. The risk of HIV transmission through blood is therefore minimal in Zimbabwe.**

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The strategies used to ensure blood safety in Zimbabwe could be applied in every country if sufficient resources were available to ensure that blood is collected only from donors who are at low risk transmitting HIV, every unit of donated blood is correctly tested for HIV and blood and blood products are given safely and only when no alternatives are available.

## PREVENTING HIV TRANSMISSION DUE TO UNSAFE INJECTIONS

In developing and transitional countries, 16 billion health care injections are administered each year - an average of 3.4 injections per person, per year. This high figure, along with evaluation reports indicating the inappropriate use of injections, suggests excessive use of injections to administer medications. Injections are not only overused, but also unsafe because of shortages of single use injection equipment. As a result, the reuse of injection devices accounts for about 260 000 new HIV infections in developing and transitional countries each year (5% of the total).

HIV infections associated with unsafe injections could be prevented if all injectable substances were supplied with matching quantities of single-use injection equipment.



### **COST-EFFECTIVE INTERVENTIONS**

The prevention of the transmission of HIV infection in health care settings can be accomplished with only a modest shift in the allocation of resources because blood safety, injection safety and universal precautions are highly cost-effective interventions. Some of the poorest countries in the world have made substantial progress through implementing safe blood strategies, ensuring that all injectable medications are made available with sufficient quantities of single-use syringes and needles and training all staff in universal precautions. A spin-off benefit is that patients are also protected from infection with other bloodborne pathogens, including hepatitis B virus and hepatitis C virus.

A failure to prevent health care-associated HIV transmission not only causes human suffering, but directly increases the number of patients requiring expensive antiretroviral treatment.

### **EHT'S RESPONSE**

EHT has identified the prevention of health-care associated HIV as a key initiative that cuts across the work of the department and supports the work of other WHO departments and agencies such as UNAIDS. In addition to strengthening its existing activities in blood safety and injection safety, it will support Member States in developing and implementing comprehensive national plans for the prevention of health care-associated HIV infection.

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