Rationale for including the SDA in the proposal

Blood transfusion saves lives and improves health, but millions of patients requiring transfusion do not have timely access to safe blood. Unsafe blood transfusion is a well documented mode of transmission of HIV and other infections, and was estimated to be responsible for 5–10% of HIV infections in the 1980s and early 1990s. This is substantially higher than other modes of HIV transmission. Recognition of the high risk of transmission of HIV through unsafe blood transfusions (>90%), due to the transfusion of a large volume of infected blood with a high viral load, led to the introduction of blood safety interventions.

Access to safe blood transfusion is an essential part of modern health care but the risk of HIV transmission through unsafe blood transfusion is of continuing concern, especially in countries with high HIV prevalence. WHO has estimated that about 5% of new HIV infections in developing and transitional countries may be attributable to unsafe health care injections, including unsafe blood and occupational exposures. Information reported by governments to the WHO Global Database on Blood Safety for the period 2004–2005 indicates that of the 158 countries that reported performing 100% screening for HIV, only 50 countries screen all blood donations in a quality-assured manner: i.e. all laboratories screening blood have standard operating procedures (SOPs) and participate in an external quality assessment (EQA) scheme.

Blood shortages also lead to an increased risk of transfusion of unsafe blood, particularly in emergency situation. In many countries, even where blood is available, many recipients of blood and blood products remain at risk of transfusion-transmissible infections, including HIV, as a result of poor blood donor recruitment and selection practices, unsafe donors and the use of unscreened blood, and unnecessary blood transfusions.

Safety of the blood supply is dependent on the collection of blood from voluntary unpaid blood donors from low-risk populations; screening of all donated blood for transfusion transmissible infections and reduction in unnecessary transfusions. These activities need to be carried out by a well coordinated blood transfusion service with a quality system in all areas.
Elements to be considered in the situation analysis

A systematic approach to strengthen the blood transfusion services is required for ensuring the quality, safety, availability and equitable access of blood and blood products for all patient in need of transfusion. Comprehensive situation analysis will allow identify gaps in policy and operational aspects of blood transfusion and will also assist in understanding unsafe blood transfusion practices and the required strategies to address these gaps.

WHO recommends the following strategic area to prevent HIV transmission through unsafe blood transfusion and to provide safe and adequate supplies of blood and these should be considered in the situation analysis and while developing interventions

- Development of voluntary unpaid blood donor programme and reduction in family/replacement and paid donation
- Provision of HIV counselling to blood donors and, where appropriate, referral
- Quality-assured testing of all donated blood for HIV
- Reduction in unnecessary transfusions
- Maintenance of safe blood transfusion systems in emergency situations.
- Safe disposal of blood collection bags and needles, and safe waste management in blood transfusion services.

Examples of programme objectives

To prevent HIV transmission through unsafe blood transfusion and to provide safe and adequate supplies of blood and to reduce the risks associated with transfusion.

Target populations

All people that need blood transfusion are the major target population. Education for donor and community and promoting health lifestyle are key strategies in develop voluntary non-remunerated blood donor programme which is the foundation for safe blood supply. General public and blood donors, including those who received counselling for HIV and other transfusion transmissible infections also compose of the target populations.

Suggested activities

In supporting countries, efforts should focus on advocacy and policy implementation, capacity building, monitoring and quality assurance. The key activities to consider in implementing
Interventions for the prevention of HIV transmission in the health care settings at country level should include:

**Assessment and situation analysis:**
- Collect data, case study and operational research to develop blood safety policies:
- Comprehensive situation analysis

**Advocacy:**
- Promote the ZERO tolerance policy on HIV/AIDS and other blood borne diseases transmission in health care settings;
- Blood safety is one of the most cost effective interventions to prevent the transmission of HIV/AIDS, as in addition to preventing HIV transmission, blood safety strategies also prevent transmission of all other blood borne pathogens i.e. Hepatitis B and C through availability of safe blood supplies.
- Safe blood supply is Access to safe blood transfusion is an essential part of modern health care

**Policy guidance:**
- Develop and update national blood policies and legislation as per WHO policy and guidelines documents with regard to the prevention of HIV transmission through ensuring the availability, accessibility of safe blood transfusion and its appropriate use;
- Informing politicians, decision-makers health institution about the urgent need to develop and implement a national blood policy and prevent transmission of HIV and other infections through blood transfusion
- Disseminating evidence and experience.

**Tools and guidelines:**
- Provide and assist in adapting WHO tools and guidelines on blood safety to country conditions; integrating guidelines in national strategic plans and curricula.

**Capacity building:**
- Strengthen capacity of countries to establish well-organized national blood programme to ensure safe and sufficient supply of blood and blood products and promote their equitable access and appropriate use.
- Promote and coordinate the development of strategies, tools and guidelines to ensure universal access to safe blood and blood products.
Increase voluntary unpaid blood donation and reduction in family/replacement and paid donation, by developing blood donor programmes, provision of training to blood donor programme managers and development of evidence-based donor selection criteria and procedures.

Strengthen capacity of countries on quality-assured screening of all donated blood for HIV.

Support countries in developing systems for reducing the need for transfusion and reducing unnecessary transfusions.

Develop HIV counseling guidelines and building capacity in countries to provide HIV counseling to blood donors.

Maintain safe blood transfusion systems in emergency situations.

Ensure safe disposal of needles, and blood collection bags and safe waste management in blood transfusion services.

**Monitoring and evaluation:**

- Support setting up a national system for data collection, analysis and use in the field of blood provision and transfusion
- Support the development of national monitoring system for the blood programme, including quality assessment, surveillance and vigilance as part of national quality management system to ensure the safe and quality of blood supply.

**Approach to costing**

The following cost items should be considered in support the achievement of universal access to safe blood transfusion

- Consultancy (international and local) cost,
- Cost for stakeholder meeting and various capacity building activities (mainly for managers, donor recruiters, donor counsellor, quality managers/officers, laboratory technologists, clinician who prescribe and administer blood, etc),
- Cost for the development of IEC materials and organizing national and local campaign to promote voluntary blood donation;
- Necessary equipment such equipment for blood collection, testing, process, storage and transportation based on the need.

The individual strengthening activities, themselves, have a very wide range of costs depending on the activities.

Technical assistance from WHO Blood Safety programme EHT/HSS could be provided upon request.
Suggested key indicators

- Development and implementation of national blood policy
- Percentage voluntary non-remunerated blood donations
- Donation rate per thousand population
- Percentage of the coverage of quality-assured testing for HIV and other transfusion transmissible infections
- Percentage of district hospitals having access to safe blood transfusion
- Development of national guideline for the clinical use of blood
- Percentage of hospitals implementing the national guideline for the clinical use of blood or its alternatives

Linkages with other interventions/programmes

Blood transfusion is an integral part of the health care system and underpins a wide range of health care programmes. These include maternal and child health, HIV/AIDS prevention and management, surgery and emergency trauma care, nutrition, the management of malaria and severe anaemia, and haematological and other tissue malignancies.

Addressing gender, human rights and equity

Ensuring universal access to safe blood transfusion and therefore protecting patients from HIV transmission while seeking health care is a core component of protecting human rights and ensuring equity in accessing the up to date best available practices to all.

Key implementing partners to be considered

Main stakeholders, usually the ministry of health, the national blood service at country level should be involved in improving availability and accessibility of safe blood and its appropriate use and therefore improving the quality of care and strengthening the health system.

Developmental partners, including the World Bank and regional development banks, bilateral donors, nongovernmental organizations, professional bodies, academic institutions, civil society and the private sector, play an important role in the strengthening of blood transfusion services and the provision of safe and adequate blood supplies.

Type and sources of technical assistance which might be required during implementation

Professionals who have experience working in developing countries in the areas of blood transfusion are key technical assistance resources. International consultants can often be
supplemented by individuals living in country who have experience in blood transfusion safety activities in the country as well as individuals from the ministry and major programs.