In the Western Pacific Region, transmission of HIV/AIDS and other infections, such as hepatitis B and hepatitis C, through blood transfusions is still a serious threat. The threat is particularly acute in areas where prevalence of these diseases is high and access to safe blood is limited. New pathogens pose additional threats to the safety of the blood supply.

Ensuring a safe, secure and ethical supply of blood and blood products and the appropriate and rational clinical use of blood are important public health responsibilities of every national government. A prerequisite for blood safety is the existence of a national blood transfusion system, based on voluntary nonremunerated donation and with every aspect governed by quality management. Such systems should be nationally coordinated, financially sustainable and able to respond to any newly emerging blood safety threat.

In the Western Pacific Region, WHO has carried out advocacy and supported Member States to develop national blood transfusion services and integrate these into national health care systems. WHO has also worked closely with partner agencies and national health authorities to reorganize blood transfusion services in priority countries.

This paper is presented for the information of the Regional Committee and for discussion at its fifty-fifth session.
1. CURRENT SITUATION

The blood safety programme in the Region is described in *The Work of WHO in the Western Pacific Region: 1 July 2003–30 June 2004*, pp. 141-144.

Blood is a vital health-care resource routinely used in a broad range of hospital procedures. Despite the availability of certain blood substitutes, the cellular and plasma components of human blood make blood transfusion the most efficient treatment for a wide variety of medical conditions.

Blood is also a potential vector for harmful, and sometimes fatal, infectious diseases. Infectious agents that can be transmitted through transfusion of blood and blood products include human immunodeficiency virus (HIV), hepatitis B virus (HBV) and hepatitis C virus (HCV). New pathogens pose additional threats to the safety of the blood supply. Every year, millions of people are exposed to avoidable, life-threatening risks through the transfusion of unsafe blood.

Globally, it is estimated that only 20% of the 80 million units of blood collected annually are collected in the developing world, where 80% of the world’s population lives. Shortfalls in the blood supply have a particular impact on women with pregnancy complications, trauma victims and children with severe life-threatening anaemia. Globally, up to 150,000 pregnancy-related deaths could be avoided each year through access to safe blood.

The prerequisite to a safe, secure and ethical supply of blood and blood products is a national blood transfusion service. Because of the public health importance of blood safety, WHO recommends that every country in the Region should establish a national blood transfusion service to ensure a safe and secure supply of blood and blood products and their appropriate and rational use. WHO also recommends that countries establish national blood policies and put in place appropriate legislative frameworks. Blood programmes should have independent budgets and management.

The key role of national governments and the significance of national blood transfusion services in implementing blood safety strategies was noted by the Twenty-eighth World Health Assembly in May 1975. The Health Assembly urged Member States “to promote national blood transfusion services, based on voluntary nonremunerated donations, and to

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1 Resolution WHA28.72
enact effective legislation governing the operation of the blood services". In September 1986, the Regional Committee for the Western Pacific urged Member States to make efforts to "develop and improve their blood transfusion services at all levels as a governmental responsibility." 2

The emergence of HIV/AIDS has lent urgency to efforts to reform fragmented management of blood transfusion systems that pose potential risks for blood services, governments, donors, recipients and the community. A national blood transfusion service is essential to ensure uniform standards and the cost-effective use of resources. A national service should: (1) manage blood transfusion services through policy and regulation; (2) implement a national policy, including voluntary nonremunerated blood donation; (3) implement quality management in all aspects of services; (4) respond in a timely manner to any newly emerging blood safety threat; and (5) ensure equitable access to safe, secure and affordable supply of blood, blood products and their alternatives, and support their appropriate use.

Blood safety was the theme of World Health Day in 2000 and was identified as an organization-wide priority in WHO's general programme of work, 2002-2005. Recent global initiatives have included the launching of global collaboration for blood safety, a global initiative to improve safety for blood donors and patients who receive transfusions. WHO supports the establishment of quality management projects to assist the Member States to establish quality management system in the blood transfusion services.

In the Western Pacific Region, WHO has carried out advocacy and technical support for policy-making and programme planning, training, provision of supplies and development of guidelines for the establishment of national blood transfusion services and their integration as an essential part of the national health care system. WHO's quality management projects have been introduced through a regional workshop and two regional training courses. A regional external quality assessment scheme, run by two WHO collaborating centres, 3 plays an important role in monitoring the quality of laboratory screening for HIV and other transfusion transmissible infections.

WHO has worked closely with donor agencies and national health authorities to reorganize blood transfusion services in Cambodia, China, Malaysia, the Philippines and Viet Nam. In China, WHO's technical cooperation with the Ministry of Health, combined

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2 Resolution WPR/RC37.R15.
3 National Serology Reference Laboratory, Australia and Pacific Paramedical Training Center, New Zealand.
with the commitment and investment of the national government, has resulted in significant
strengthening of the blood transfusion sector, especially in the fields of human resources
development, quality management and the transformation from reliance on paid blood
donation to voluntary nonremunerated blood donation.

2. ISSUES

2.1 Inadequate government commitment

Government support for blood transfusion services in Member States of the Region is
still not adequate. Some blood transfusion services continue to rely on donor funding for
basic operations, such as procuring test kits or carrying out donor recruitment activities.
These essential activities often have to be stopped when cooperation programmes end or
donor agencies withdraw.

2.2 Lack of blood donors

Lack of voluntary nonremunerated blood donors is still the main constraint for blood
safety in the Region. In more than 70% of the countries and areas in Western Pacific Region,
family replacement donors still provide the bulk of blood for the services. Donors are still
paid in at least three countries in the Region.

2.3 Poor organization of blood supply systems

In several countries, blood transfusions rely on very fragmented blood supply systems.
Such systems mean that control is exercised by different players or layers of government,
which makes it very difficult to assure the quality of blood and blood products. More
resources as well as stronger political will and leadership are needed if systems are to be
reformed.

2.4 Low status of blood banks

In Pacific island countries, hospital-based blood banks usually have a low status within
laboratories and are usually run by a laboratory technologist, who is often inappropriately
trained and inadequately supervised.
2.5 Inadequate coverage of blood screening

All countries in the Region have policies to screen donated blood for HIV and HBV and half have a policy to screen for HCV. However, coverage of all blood units in the country and the sustainability of screening depend on the availability of testing reagents. Because some blood services have not achieved full coverage, in rural areas or in emergencies blood transfusion sometimes has to take place with blood that has not been tested at all.

2.6 Lack of quality control

Many countries consider quality control to be less an essential component of routine work than a luxury that adds costs to under-resourced blood banks. A lack of quality assurance measures (including manuals of standard operating procedures, appropriate training and competency certification programmes, and continuous assessment systems) often hinders the implementation of good laboratory and manufacturing practices.

2.7 Inappropriate use of blood

The inappropriate use of blood is widespread in the Region. This includes the transfusion of blood or blood products when it is not strictly needed or when safer alternative therapies are available. In addition, whereas in most developed countries 75%-100% of the blood collected is transfused as components, in developing countries most of the blood is transfused without being separated.

3. ACTIONS PROPOSED

The following actions by Member States are proposed for consideration by the Regional Committee.

(1) Provide sufficient human and financial resources to ensure the sustainable development of all areas of blood transfusion services. Where necessary, provide strong political support, leadership and resources to reform fragmented, ineffective or inefficient blood transfusion services.

(2) Promote voluntary and nonremunerated blood donation. High priority should be given to the elimination of paid blood donor systems, which are often associated with
significantly higher prevalence of transfusion transmissible infections than voluntary systems.

(3) Support the establishment of national quality management systems in blood transfusion services, and encourage services to participate in regional external quality assessment schemes. Strengthen the national external quality assessment scheme, where appropriate.

(4) Promote appropriate and rational use of blood through national policies and guidelines on clinical use of blood and by ensuring medical providers are trained in the appropriate clinical use of blood products.