Meeting Report

Biregional Workshop on Blood Donor Management

Ha Noi, Viet Nam
14–16 June 2010

World Health Organization
REPORT

BIREGIONAL WORKSHOP ON BLOOD DONOR MANAGEMENT

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NOTE

The views expressed in this report are those of the participants in the Biregional Workshop on Blood Donor Management for selected countries of the South-East Asia and Western Pacific Regions and do not necessarily reflect the policy of the World Health Organization.
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<tr>
<td>Blood</td>
<td>Whole blood collected from a donor and processed either for transfusion or for further manufacturing</td>
</tr>
<tr>
<td>Blood centre</td>
<td>An establishment that carries out all the activities in the blood supply chain, from blood collection to distribution of blood and blood components</td>
</tr>
<tr>
<td>Blood component</td>
<td>Therapeutic components of blood (such as red cells, white cells, platelets, plasma) that can be prepared by centrifugation, filtration and freezing using conventional blood bank methodology</td>
</tr>
<tr>
<td>Blood donation rate</td>
<td>The number of blood donations made in a given period (usually 1 year) per 10,000 population</td>
</tr>
<tr>
<td>Blood establishment</td>
<td>Any structure or body that is responsible for any aspect of the collection and testing of human blood or blood components, whatever their intended purpose, and their processing, storage and distribution when intended for transfusion</td>
</tr>
<tr>
<td>Blood product</td>
<td>Any therapeutic product derived from pooled human blood or plasma</td>
</tr>
<tr>
<td>Deferral</td>
<td>Suspension of the eligibility of an individual to donate blood or blood components</td>
</tr>
<tr>
<td>Donor</td>
<td>A person in normal health with a good medical history who voluntarily gives blood or plasma</td>
</tr>
<tr>
<td>First-time donor</td>
<td>A new donor who has not previously donated blood or plasma</td>
</tr>
<tr>
<td>Hospital blood bank</td>
<td>A hospital unit that stores, distributes and may perform compatibility tests on blood and blood components exclusively for use within hospital facilities including hospital-based transfusion activities</td>
</tr>
<tr>
<td>KABP</td>
<td>A type of social research study performed according to one of several rigorous social research techniques to understand the knowledge, attitude, behaviour and practice of a selected sample of individuals or groups concerning a particular subject and in a particular set of social circumstances at a particular time</td>
</tr>
<tr>
<td>Paid donor (blood seller)</td>
<td>A person who sells their blood or plasma</td>
</tr>
<tr>
<td>Quality system</td>
<td>The organizational structure, responsibilities, procedures, processes and resources for implementing quality management</td>
</tr>
<tr>
<td><strong>Quality management</strong></td>
<td>Coordinated activities to direct and control an organization at all levels in the pursuit of defined quality objectives</td>
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<tr>
<td>------------------------</td>
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<tr>
<td><strong>Regular donor</strong></td>
<td>Someone who donates (blood or plasma) in the same blood centre in accordance with the minimum donation interval</td>
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<tr>
<td><strong>Repeat donor</strong></td>
<td>Someone who has previously donated within two years in the same blood centre</td>
</tr>
<tr>
<td><strong>VNRBD</strong></td>
<td>Voluntary non-remunerated blood donation is the donation of whole blood or plasma made voluntarily and without inducement or reward</td>
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<tr>
<td>ACRONYMS</td>
<td>Definition</td>
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<tr>
<td>----------------</td>
<td>----------------------------------------------------</td>
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<tr>
<td>BB</td>
<td>blood bank</td>
</tr>
<tr>
<td>BC</td>
<td>blood centre</td>
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<tr>
<td>BDR</td>
<td>blood donation rate</td>
</tr>
<tr>
<td>BT(S)</td>
<td>blood transfusion (service)</td>
</tr>
<tr>
<td>CRM</td>
<td>customer relationship management</td>
</tr>
<tr>
<td>DGHS</td>
<td>Director General Health Services</td>
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<tr>
<td>DoH</td>
<td>Department of Health</td>
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<tr>
<td>FTD</td>
<td>first-time donation</td>
</tr>
<tr>
<td>GDP</td>
<td>gross domestic product</td>
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<tr>
<td>HBV</td>
<td>hepatitis B virus</td>
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<tr>
<td>HCV</td>
<td>hepatitis C virus</td>
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<tr>
<td>HDI</td>
<td>human development index</td>
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<tr>
<td>HIV</td>
<td>human immunodeficiency virus</td>
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<tr>
<td>HR</td>
<td>human resources</td>
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<tr>
<td>ICT</td>
<td>information and communication technology</td>
</tr>
<tr>
<td>IEC</td>
<td>information, education and communication</td>
</tr>
<tr>
<td>KABP</td>
<td>knowledge, attitude, behaviour and practice</td>
</tr>
<tr>
<td>HTC</td>
<td>hospital transfusion committee</td>
</tr>
<tr>
<td>KPI</td>
<td>key performance indicator</td>
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<tr>
<td>M&amp;E</td>
<td>monitoring and evaluation</td>
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<tr>
<td>MoH</td>
<td>Ministry of Health</td>
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<tr>
<td>MOU</td>
<td>Memorandum of Understanding</td>
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<tr>
<td>NAT</td>
<td>nucleic acid amplification testing</td>
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<tr>
<td>NBTC</td>
<td>National Blood Transfusion Centre</td>
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<tr>
<td>NCT</td>
<td>National Centre for Transfusion</td>
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<tr>
<td>NGO</td>
<td>non-governmental organization</td>
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<tr>
<td>NIHBT</td>
<td>National Institute of Haematology and Blood Transfusion</td>
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<tr>
<td>PHC</td>
<td>primary health care</td>
</tr>
<tr>
<td>RD</td>
<td>replacement donor</td>
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<tr>
<td>Acronym</td>
<td>Description</td>
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<td>---------</td>
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<tr>
<td>SARS</td>
<td>severe acute respiratory syndrome</td>
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<tr>
<td>SEARO</td>
<td>South-East Asia Regional Office</td>
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<tr>
<td>SHI</td>
<td>social health insurance</td>
</tr>
<tr>
<td>SWOT</td>
<td>strengths, weaknesses, opportunities, threats</td>
</tr>
<tr>
<td>TTI</td>
<td>transfusion-transmissible infection</td>
</tr>
<tr>
<td>VNRBD</td>
<td>voluntary non-remunerated blood donation/donor</td>
</tr>
<tr>
<td>WBDD</td>
<td>World Blood Donor Day</td>
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<tr>
<td>WHA</td>
<td>World Health Assembly</td>
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<td>WHO</td>
<td>World Health Organization</td>
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<tr>
<td>WPRO</td>
<td>Western Pacific Regional Office</td>
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SUMMARY

There is an urgent need to expand and improve blood donor management programmes across the South-East Asia and Western Pacific Regions in order to provide safe and sufficient blood for clinical use.

The blood transfusion sector should intensify advocacy efforts to secure the necessary government support. Governments are urged to improve the effectiveness of cooperation between blood services and social organizations responsible for blood donor mobilization.

In many countries, there is a lack or shortage of salaried staff for blood donor recruitment, and staff retention is difficult due to poor pay and work conditions. Governments should seek to provide additional funding for such staff and for blood donor programme activities such as campaigns, donor education, donor care and counselling. At the same time, blood transfusion services (BTS) are urged to develop full and transparent costing mechanisms to demonstrate competence in the use of funds and evidence for budget increases. BTS are also urged to consider linking funding requests to priority national health improvement programmes, which may receive greater overseas development assistance.

Lack of electronic data-handling systems also hampers the effective management of donor information, which could support improved blood donor mobilization. However, the capital investment and ongoing support costs for such systems are high; hence, improvement in this area remains a significant challenge.

Further legislation is also required in many Member States, not only to support organizational change but also to set technical requirements for improving the quality and safety of donation.

The development of strategies for blood donor mobilization should be set within the context of national blood programmes and take into account the local situation so that subsequent social marketing strategies are designed appropriately.

The use of rigorous social research to develop an understanding of donor attitudes is recommended as a baseline on which innovative and creative strategies can be built. This includes making positive but appropriate use of the social capital inherent in modern and more traditional social networks.

Planning, implementation, and monitoring and evaluation of blood donor programmes should follow usual good management practices. It is especially important to be aware of issues regarding transparency and accountability, considering that the success of blood donor programmes is dependent on the participation and voluntary gift of donation provided by the community.
1. INTRODUCTION

1.1 Background information

In 2000, the World Health Organization (WHO) accorded priority to ensure blood safety with the slogan, “Safe blood starts with me: blood saves lives”. Subsequently, the World Health Assembly (WHA) in 2005 designated 14 June each year as World Blood Donor Day (WBDD). The WHO Strategy for Blood Safety proposes several key elements to strengthen national blood programmes, one of which is the collection of blood only from voluntary non-remunerated blood donors (VNRBD) belonging to low-risk populations.

While several components are required for ensuring blood safety, one of the weak areas is the lack of a blood donor management programme in countries. This includes the education, motivation and recruitment of voluntary blood donors; the use of stringent criteria for assessing the suitability of donors; safe blood collection procedures; and high-quality donor care.

In many countries of the Asia–Pacific Region, there is an urgent need for effectively targeted, well-managed and sustainably funded blood donor mobilization programmes to help secure a sufficient and safe supply of blood.

1.2 Objectives of the Workshop

The objectives were as follows:

(1) to discuss the principles, objectives, key elements of and share experiences on the planning, management and monitoring of national blood donor programmes;

(2) to review progress in the implementation of national blood donor programmes and discuss the lessons learnt;

(3) to identify strategic actions for strengthening national blood donor management programmes within Member States.

1.3 Participants

There were twenty-eight participants from seventeen countries: from the South-East Asia Region: Bangladesh, Democratic People's Republic of Korea, Indonesia, Myanmar, Nepal and Sri Lanka; and from the Western Pacific Region: Cambodia, China, Fiji, Lao People's Democratic Republic, Malaysia, Mongolia, Papua New Guinea, the Philippines, Republic of Korea, Singapore and Viet Nam.

The meeting was facilitated by two temporary advisers and a WHO secretariat team from the Regional Office for the Western Pacific (WPRO), the Regional Office for South-East Asia (SEARO) and the WHO Viet Nam Country Office. There were also four observers from Viet Nam.
1.4 Organization and content

The working programme for the meeting included seven sessions, each with a presentation followed by group work and a chaired plenary discussion. The Workshop Programme is given in Annex 5.

1.5 Opening remarks

On behalf of the Ministry of Health, Viet Nam, Professor Nguyen Anh Tri, Director, National Institute of Haematology and Blood Transfusion (NIHBT) welcomed all the participants and thanked WHO for organizing the event. While acknowledging the challenge of maintaining a secure and safe blood supply, the commitment of Viet Nam to becoming self-sufficient in blood and blood components based on VNRBD was noted. The workshop was seen as a learning opportunity to strengthen the links between blood transfusion providers in the Region.

On behalf of Dr Shin Young-Soo, WHO Regional Director, WPRO, Dr Jean Marc Olivé, WHO Representative for Viet Nam, delivered the opening remarks.

Dr Olivé thanked the Viet Nam Ministry of Health and the Viet Nam NIHBT for their support in hosting the meeting.

It was acknowledged that despite some recent improvements, equitable access to safe blood and blood products still remains a major challenge in both Regions, as changing demographics have widened the gap between demand and supply. WHO estimates that of the more than 80 million units of blood donated globally every year, only 38% is collected in developing countries, in which 82% of the population lives, whereas 62% of the blood supply is collected in developed countries where 18% of the population lives.

He emphasized that while developed countries collect 100% of their blood from VNRBD, some developing countries still rely on paid, family or replacement donors. The average donation rate in developed countries is 38.7 donations per 1000 population, and in developing countries it is only 7 donations per 1000 population. Furthermore, in the Asia–Pacific Region, 17 countries do not screen all donated blood for one or more of the transfusion-transmissible infections (TTIs) including hepatitis B and C. This is a critical lapse.

The workshop was acknowledged as providing a good opportunity to discuss common problems, share experiences, develop future plans for strengthening blood programmes, and seek innovative approaches to community and youth participation.

The continuing commitment of WHO to provide technical support to global efforts in augmenting the availability of safe blood was reiterated.

1.6 Appointment of a Chairperson and Vice-Chairperson

The workshop elected Dr Yasmin Ayob, Senior Consultant, National Blood Centre, Kuala Lumpur, Malaysia as the Chairperson and Dr Soisaang Phikulsod, Director, National Blood Centre, Thailand Red Cross Society, Bangkok, Thailand as the Co-Chairperson. Mr Paul Rogers was chosen as the Rapporteur.
2. PROCEEDINGS

2.1 Session I: Region updates and country reports

2.1.1 WHO Regional Office for South-East Asia (SEARO)

Dr Rajesh Bhatia, WHO, SEARO, gave an overview of the status of blood donation in the South-East Asia Region (SEAR). The critical need for blood donor management programmes across SEAR to address blood shortages was described as a huge challenge. All countries in the Region operate national blood transfusion programmes; 9 Member States have a national blood policy or national blood act. In 6 Member States, national Red Cross Societies or non-governmental organizations (NGOs) are major partners in the mobilization of blood donors, and a partnership approach is, therefore, important.

Approximately 3,500 blood banks are in operation in Member States of SEAR. Between 2004 and 2008, there has been a small but steady increase in both the total collections and VNRBD to 71%; however, chronic shortages remain as only about 60% of the blood that is required is collected and blood donation rate (BDR) for the Region as a whole remains below the 1% threshold recommended by WHO. Only 4 countries exceed this threshold.

Despite this, most Member States have made significant attempts to mobilize blood donors and challenge some of the societal myths that are barriers to blood donation, especially the widespread resistance of women in many communities to donating blood. Achieving good standards of donor care to increase donor retention is another area that requires attention in many Member States.

The prevalence of HIV in blood donors in the Region as a whole is falling, though this is largely due to the success in India where the population is large and therefore heavily influences the average for the Region. In some other countries, the trend is less strongly downward. The prevalence of hepatitis B virus (HBV) in blood donors, however, has decreased widely. The prevalence of hepatitis C virus (HCV) in blood donors is stable across the Region and generally low at <0.5%, though screening for HCV is relatively recent in many countries and the true trends will not be obvious for another few years.

Routine screening of blood donations for HIV across the Region is almost 100% since 2008 and 100% for HBV except in Myanmar and Indonesia. There is virtually 100% for HCV since 2008. The screening programmes for HIV, HCV and HBV across the Region now prevent approximately 200,000 TTIs per year. To ensure the effectiveness of blood donation screening, SEARO has supported the completion of the WHO Quality Management Training course for 170 quality managers across the Region since 2001.

The importance of national blood programmes in achieving significant shifts in the patterns of clinical use from whole blood to component therapy was also noted to be an effective strategy for reducing the demand for blood by ensuring a more efficient use of blood donations. With its large population, this issue is of particular concern in India where component therapy constitutes less than 25% of treatment. Whole blood therapy currently stands at 44% across SEAR countries.
In summary, the major challenges identified included weak governance at the national level with further political and financial commitment required from central governments; community mobilization to tackle common social myths about blood donation; strengthened partnerships with third-sector organizations such as national Red Cross Societies; improved donor care to encourage donor retention; systematic quality assurance to ensure blood safety through effective screening of blood donations, as well as the selection of low-risk blood donors through targeted blood donor mobilization activities.

2.1.2 Regional Office for the Western Pacific (WPRO)

Dr Gayatri Ghadiok, WHO WPRO, gave an overview of the status of blood donation in the Region. Despite the recommendations of WHA Resolution 28.72 of 1975, a global imbalance in blood supply remains, with 62% of blood donations made in high human development index (HDI) countries that contain 18% of the world’s population. Within the 27 Member States of the Region, there is an imbalance, with 46% of donations coming from 13% of the population. The WHO-recommended BDR is exceeded only in high HDI countries. Data show a steady increase in the annual collection and VNRBD; 97% of the blood collected in 2007 was from VNRBD compared to 91% in 2004; however, 6 countries still collect more than 50% of their blood from family and paid donors.

Data in 2008 from 13 countries show that the percentage of VNRBD was more than 80% in 10 countries. A few country examples were highlighted. China, Lao PDR, Viet Nam and some provinces in Papua New Guinea have shown rapid increases in the percentage of VNRBD in recent years. Most non-VNRBD are family and replacement donations; in 6 countries this is more than 50%, which is unacceptably high.

A challenge in many countries is to keep the balance between the “sufficiency” and “safety” of blood supply. The percentage of blood donations screened for HIV, HBV and HCV is 99.7% across the Region; however, about 1.3 in 1000 donations are still not tested for all the TTI markers. Emerging and re-emerging infections and their impact on the availability of safe blood was presented with reference to malaria, dengue, chikungunya, severe acute respiratory syndrome (SARS) and the recent H1N1 influenza.

The challenges in the Region include an imbalance between developing and developed countries in the level of access to safe blood, especially by geographically isolated communities; fragmentation of blood supply systems; limited resources; lack of programmes to recruit and retain voluntary unpaid blood donors from low-risk populations, and continuing reliance on family replacement or paid donors.

Though there have been a number of initiatives in the Region, Member States should try to secure greater political commitment for national blood programmes to ensure efficient use of limited resources and reduce fragmentation. Recruitment of VNRBD should be strengthened through the development of a national blood donor programme (integrated with and part of the national blood programme). Development of quality assurance systems should also be a key part of the national blood programme.

Most countries follow the key elements of the WHO Blood Safety Strategy. Though significant efforts have been made in most countries to improve blood safety, much more needs to be done to overcome existing challenges as well emerging threats.
2.1.3 Country reports: South-East Asia Region

Bangladesh

In Bangladesh, BTS are coordinated nationally through a Safe BT Programme which is administered by a full-time director and 11 supporting staff. The programme is fully funded under the National Health Nutrition and Population Programme. There is also a national BT Steering Committee, which is a policy-making body, chaired by the Minister of Health with members from relevant stakeholders such as the Red Crescent and medical experts. In addition, there is a National Safe Blood Expert Committee, chaired by the Director General of Health Service (DGHS).

Despite the existence of national structures, coordination of blood banking remains poor and service delivery is fragmented between public and private units. Public blood banks (116) are integrated into hospitals at the district and subdistrict (Upazila) levels. Private and NGO blood banks are stand-alone (32 and 7, respectively) or hospital based (11 and 2, respectively) and all require an operating licence from the DGHS. The blood banks are “networked” though it is not clear what activities these include. The national policy for safe blood transfusion (BT) has been drafted but awaits approval. A national blood donor recruitment programme has also been drafted but also awaits approval. National and local steering committees to administer such a programme are yet to be formulated.

The rate of VNRBD increased by 116% between 2005 and 2009. During the same period, however, replacement donations increased by 75% but blood selling (or paid donation) increased by only 29%. The overall BDR remains low at 22/10 000 population.

Blood collection is carried out mostly at fixed sites (90%) and 90% of donors are men. As in many countries, young donors predominate, with 65% of them in the age group of 18–25 years. The blood collection volume is 100% in the 350–450ml range and therefore compatible with international standards. The rate of repeat donations is, however, low at 14%.

There are a range of blood donor mobilization strategies and activities across the country but these are not coordinated nationally or even regionally.

The major barriers to improved blood donor mobilization have been identified as shortage of suitably qualified and trained staff, and lack of electronic data management for donor records. The lack of coordinated and well-organized mobilization activities results in poor performance, and causes confusion among blood donors. In addition, there are strong social barriers to donation which need to be overcome, such as the view that family/replacement donation is preferable to voluntary donation.

Future plans to improve the situation include sensitization of policy-makers of the need for national control and coordination with appropriate financial, programmatic and legislative support. Specifically, this should include the formation of a National Steering Committee by the end of 2010 for a sustained national blood programme coordinated by the National Blood Transfusion Centre (NBTC). Such a programme should include a national blood donor programme with regionally coordinated blood donor mobilization activities that, with additional trained staff, will target the collection of 600,000 units of blood by the end of 2016.

DPR Korea

The BTS in DPR Korea is organized with a strong central government commitment under a national blood programme run by a department within the Ministry of Public Health and with an advisory
National BT Committee. Both the National Blood Policy and National Guidelines on Blood Transfusion were updated in 2006. There are 12 blood centres (BCs) serving the country, including one national BC.

There is a national blood donor programme which is coordinated at the national and local levels through VNRBD Coordination Committees. In 2009, 95,700 units were collected (100% voluntary). Blood collection is largely carried out at fixed sites (98%) and 82% of the donors are women. In 2006, only 2% of donors were men but this increased to 18% in 2009. The percentage of repeat donors is high at 85% and 70% of the volume of blood collected is 350-450 ml/donation. The overall BDR is 35/10,000 population.

The responsibility for educating communities about blood donation, and recruiting and retaining donors is shared by the blood donor recruitment departments in the BC and the local People’s Committee. There is regular training of donor recruiters and several campaigns have been conducted for promoting blood donation since 2008, including celebration of WBDD. Donor care is the responsibility of the BC and many BCs have been recently renovated to make the surroundings more comfortable.

The main barriers identified to further improve blood donor mobilization were a lack of funding, lack of sufficient qualified and trained staff, absence of electronic systems for data handling and the need to educate people about the need for blood donation, especially men.

Future plans include improved quality assurance, preparing updated donor education materials and an expansion of mobile blood collections.

**Indonesia**

Within Indonesia, there is a nationally coordinated BTS run by the government and the Indonesian Red Cross, overseen by a National BTS Steering Committee. A national blood policy has recently (June 2010) been prepared and awaits approval. Approximately 10% of the total costs are met through dedicated government funding.

The country is large (280 million population) and geographically diverse (>10,000 islands) and the number of blood banks (BB) is unknown. However, it is known that there are at least 200 government- and 211 Indonesian Red Cross-owned and run BB. All these BB operate in a network but the exact operational relationships are not detailed. The government BB are found mostly in small districts. A National Blood Donor Programme is contained within the National Blood Programme, which is awaiting approval. At the national level, the coordinating body is the National BTS Committee and at the local level there are VNRBD Coordination Committees.

Blood collection figures are available only for the Indonesian Red Cross BB. The total blood collection increased by 25% from 2005 to 2009, and the annual BDR remains low, at 73/10 000 population. There is no paid donation. Of the VNRBD, first-time donors (FTD) and replacement donors (RD) account for 75% and 25%, respectively. Blood is collected mostly from mobile units (55%); 82% of the donors are men with 51% in the age group of 25–50 years. The percentage of repeat donors is high at 60%. About 5% of the volume of blood collected is 450 ml, 75% 350–450 ml and 20% <350 ml/donation.

Blood donor education is mostly carried out directly by medical personnel. Blood donor recruitment is mainly carried out by the Indonesian Red Cross and the Indonesian Blood Donor Association (PDDI) through mass media outlets, especially the radio. Donor retention strategies are the responsibility of the Indonesian Red Cross and activities include birthday SMS messaging. WBDD is now
widely celebrated across the country and blood collection is also done on other celebratory days such as Army Day and various community anniversaries.

Donor care is the responsibility of the Indonesian Red Cross and PDDI, and those who donate blood >10 times are offered free comprehensive medical check-ups.

The major barriers to improved blood donor mobilization are a lack of funds, staff and effective national coordination. The main technical barrier is the lack of electronic data handling. A knowledge, attitude, behaviour and practice (KABP) study is required to better understand the social barriers to and motivators for blood donation. This is especially important in a country with such wide cultural diversity.

Myanmar

In Myanmar, the BTS is nationally coordinated through an administrative office within the Ministry of Health, although there is no full-time director or staff for this role. A National BTS Steering Committee provides national oversight. Dedicated government funding is provided to cover 70% of the total costs. A national blood law is already in place and a national blood policy is in draft form.

There is one NBTC with 95 BB operating in a national network, though the nature of operational coordination was not presented.

A national blood donor programme is planned as part of the national blood programme and will be coordinated by the National BT Committee and local VNRBD Steering Committees.

Blood donation rose by approximately 50% between 2005 (45,146) and 2009 (68,406) with 63% VNRBD and 27% FTD/RD. The exact BDR is not available but for the total collections in 2009 and a population of 62 million, it is approximately 11/10,000 population and therefore very low. The percentage of male donors is high (78%) and collection is mostly at fixed sites (80%). There is a high percentage of repeat donations (59%) and 52% of blood donors are between 25 and 50 years.

Education about blood donation is provided in the community and at universities and factories by health-care professionals such as pathologists and social workers. Donor education material is available. Donor recruitment is the responsibility of voluntary social organizations such as religious groups, the Red Cross, Youth Union, etc. Donor retention is the responsibility of pathologists and hospital transfusion committee (HTC). Donor care is provided by medical and nursing staff within the BC, BB or hospital. Blood donor mobilization is done on WBDD and National Blood Donor Day with the support of the Red Cross and NGOs.

The major barriers to improved blood donor mobilization are a lack of funds and suitably trained staff, as well as the need for improved organizational arrangements. In the technical area, lack of electronic data-handling capability was perceived as a barrier to progress. Detailed analysis of the social attitudes towards blood donation also inhibits accurate targeting of potential donors with relevant messages.

The future plan is to try and secure a greater commitment from the central government towards BT and to set up a strong national blood programme containing a national blood donor programme.
Nepal

Nepal has a long history of BT and a BTS was first established in 1966. The BTS is jointly coordinated at the national level by the government and the Red Cross through a National BT Steering Committee. The BTS is administered through an office in the Ministry of Health (MoH) and has a full-time director and staff. A national blood policy is in place and was revised in 2006.

In 1991, the Government of Nepal delegated sole authority to the Nepal Red Cross Society to conduct blood mobilization programmes in Nepal with the goal of providing a safe and secure blood supply based on VNRBD. This donor mobilization programme is part of the national blood programme and is controlled through a National VNRBD Steering Committee.

Selling of blood is illegal in Nepal, as is purchase of blood. Blood and blood products are provided at no cost except reasonable service and/or material charges.

There are a total of 68 BB (government sector and in medical colleges) in 48 districts, joined together in a network. The operational links between BC and BB in the network were not reported.

Total blood collections rose by 65% between 2005 and 2009. In the Central BTS in Kathmandu, 90% of donations are from VNRBD. It is not known if this is representative of the country as a whole. Blood is mostly collected at mobile sites (85%) and 84% of donations are by men. Over half the donor population (60%) is between 18 and 25 years of age. Approximately 39% of donations are from repeat blood donors and 69% of the volume of blood collected is 350 ml/donation.

The education of communities, donor recruitment, and retention and care of donors are all carried out by the Nepal Red Cross Society with the support of the Voluntary Blood Donor Association for donor education and the BTS for all other activities. Since 2008, blood donor mobilization campaigns have been organized around WBDD and BTS Day, and other campaigns by the Nepal Red Cross Society.

The major barriers to improved blood donor mobilization are a lack of funds, lack of electronic data-handling capability, and lack of a detailed analysis of social attitudes toward blood donation.

In future, the national blood programme plans to focus on quality improvement, supply of blood components, electronic data handling and incorporation of transfusion medicine into the medical school curriculum. No specific future plans for blood donor mobilization were presented.

Sri Lanka

In Sri Lanka, the BTS is coordinated nationally by the government with a full-time director and staff. Dedicated funding in 2009 amounted to US$4.65 million. A national blood policy is in place. There is a national blood programme and overall coordination is achieved through a National Steering Committee.

There is a national BC and 76 hospital BB. Networking of the hospital BB is in progress. There are also 6 private hospital BB.

The total number of blood donations rose by 104% from 2005 (207,380) to 2009 (309,909) with 86% VNRBD. At the same time, the number of FTD/RD declined steeply from 37% to 14% of total donations. The BDR in 2009 was 150/10,000 population. Blood is mostly collected from mobile units (67%) and 86% of donors are men. Sixty-seven per cent of donors are in the age group of 25–50 years while 33% are in the age group of 18–25 years. Approximately 67% are repeat blood donors.
Donor education in the community is carried out by medical officers and public health inspectors. Donor retention activities focus on social marketing, simple reminders and electronic donor cards. Donor care includes staff training in additional life-saving measures such as cardiopulmonary resuscitation and health camps are held for aphaeresis donors. WBDD was celebrated with various activities in 2008, 2009 and 2010.

The major administrative barriers to improved blood donor mobilization are the lack of a master plan for blood donor recruitment, shortage of adequate infrastructure and equipment in peripheral BC, and shortage of staff and funds, especially for maintenance. The major technical barriers identified are transportation difficulties and lack of modern information and communication technology (ICT). The major social barriers identified are resistance in some communities to donate blood and a decrease in blood donations during festive seasons. Other major barriers are the heavy dependence on mobile units for blood collection and the general lack of blood donation in society.

Future plans and targets include 100% VNRBD by 2012, computerization of donor records and strengthened networking between BB. There is also a programme to develop hospital BB. New technology for frozen red cell preparations, nucleic acid amplification testing (NAT), fractionation of surplus plasma and cord blood banking are also planned.

2.1.4 Country reports: Western Pacific Region

Cambodia

A national blood policy was approved by the MoH in 2003. The BTS is coordinated at the national level by the MoH with an administrative function within the NBTC which has a full-time director. The government provides up to 80% of the total funding in a dedicated budget for BT. There is a National BT Steering Committee whose members are the major stakeholders.

There are 22 government BB (including the NBTC) and three NGO-based BB. The government BB are networked, though the exact operational relationships were not presented.

The total number of blood donations rose by nearly 50% from 2005 to 2009. The overall rate of VNRBD is low at 30%, although two BC exceed 50% of the VNRBD. There are no official reports of blood sellers but it is known that this practice does occur and reported as FTD/RD. The extent of this practice is not known. The BDR is 30/10 000 and therefore blood is in chronic short supply.

Blood collection is performed mostly at fixed sites (81%) and 80% of donors are men. Young donors (aged 18–25 years) constitute 46% of the donor base. Repeat donations are very low at 2%.

Donor education is targeted at students and donor recruitment is carried out by volunteer donor recruiters under the supervision of a doctor or nurse. Donor retention is supported by the distribution of reward certificates to regular donors and there is a hotline for donor feedback. WBDD was celebrated in Phnom Penh and two surrounding provinces in 2008, and in Phnom Penh only in 2009 and 2010.

The major barriers to improved blood donor mobilization are low motivation of staff and the poor professional capacity of donor recruiters. Donor care is recognized as being poor and there is some lack of public trust in the BTS. Insufficient commitment from the senior management is also seen as a hindrance.
Future plans include the development of a national blood donor programme with improved staff training and information, education and communication (IEC) materials. A national blood law to strengthen the BTS and blood donation is also envisaged.

**China**

In China, there is a blood donation law that prohibits selling of blood. There is also a document which, in conjunction with the blood law, acts as a national blood policy by setting out roles and responsibilities for the BTS.

The BTS is coordinated by the central government through a national blood management unit which has a dedicated director and supporting staff. Dedicated financial support is provided for the BTS through a mixture of central and local government funding. There is a National BT Steering Committee. The Chinese Society of Blood Transfusion plays a supporting role in blood donor mobilization.

There is a strong national blood donor programme that not only targets donor mobilization but also, through a series of award programmes, provides a stimulus to cities and provinces to actively promote VNRBD. There are both national and province/local committees for coordinating blood donor mobilization. The membership of the latter includes the Province Health Bureau, the BC/BB and the Blood Donation Office.

Within China, there are 459 BB and BC which are operationally networked at the province and local levels. Blood collections rose by 62% between 2005 and 2009; a total of 18.27 million units were collected and the BDR reached 140/10 000 in 2009. Since 1998, VNRBD have risen from 5% to >99% with the rapid elimination of blood selling and the steady reduction of planned donations (FTD/RD). Blood is mostly collected at mobile units (up to 80% in Beijing, for example). Blood donation by sex and age of donors was not reported. Repeat donations exceed 50% in some provinces and 56% of the volume collected per donation is 400 ml/donation.

The responsibility for donor education lies with the BC/BB and most have donor education committees. All staff understand the eligibility criteria for VNRBD and are encouraged to donate if eligible or to support donor recruitment as volunteers if not. The strategy for donor mobilization is based on extensive donor education with intensive participation of social associations and a strong emphasis on donor care. Donor retention depends not only on government commitment and community participation but is also further supported by each BC/BB, which focuses on providing high standards of care and services according to the national guidelines. WBDD is celebrated annually and in 2010 this was held at the World Expo in Shanghai and attended by the Minister of Health. In addition, during 2010, 15 provinces and many individuals received awards for blood donation.

The major barriers to improved blood donor mobilization are limited funding and the need for more suitably qualified and trained staff. The main technical challenge is improving data management systems. As the curative health sector has grown in China, the demand for blood has exceeded the supply. Therefore, further strengthening of the national blood donor programme is required, especially in some ethnic minority areas.

Future plans include increasing awareness at senior levels of the government of the need for increased levels of blood donation. For the national blood donor programme, the focus is on increasing the number of fixed collection sites and expanding volunteer support for blood donation. A further strengthening of regulatory mechanisms, and standards for donation screening and quality assurance is also planned.
Fiji

The National Blood Policy was endorsed by the MoH on 15 April 2010 and the Fiji national blood service is coordinated by the MoH through a full-time coordinator and 10 staff. The government provides 100% dedicated funding and there is a national BTS Steering Committee.

There are three BC and one BB in a private hospital. BT remains fragmented, with the BTS being responsible for donor recruitment and pathology departments being responsible for screening of blood units.

The number of blood donations increased by 48% from 2005, and reached 10,858 donations in 2009. The BDR remains low at 100/10,000 population in 2009. VNRBD reached 67% in 2009 with the remaining donations coming from FTD/RD. Blood selling is prohibited. Half the blood is collected at fixed and half at mobile sites, and 88% of the donations are by men. There is a fairly even spread of donors across the ages of 16 and 50 years. Figures for the percentage of repeat donors are not available and the volume of blood collection is usually 450 ml/donation.

Donor education is carried out mostly by the Fiji Red Cross Society and includes school campaigns. Donor recruitment, donor retention and donor care is the responsibility of the Fiji National Blood Service. WBDD has been celebrated annually between 2008 and 2010. The main aim of recent donor mobilization campaigns has been to reduce the number of FTD/RD. Recognition for blood donation is focused at the community and organizational levels rather than the individual.

The major administrative barriers to improved donor mobilization include organizational fragmentation and the need for BT to be a part of the public health programme in Fiji. Other administrative barriers include budgetary restrictions, lack of sufficient numbers of trained and qualified staff, and rapid staff turnover. The main technical barrier is the lack of electronic data-handling systems. Another challenge is how to target remote communities.

Future plans include centralization of blood screening by 2011, a restructuring of the Fiji National Blood Service by 2014 and appointment of a director and a national blood authority by the end of 2010. It is also planned to recruit additional technical specialist staff and formulate a national blood guideline by June 2012.

Lao PDR

Lao PDR has had a national blood policy since 1995. The Lao Red Cross Society coordinates the national blood service and there is a national BTS coordination committee with wide stakeholder involvement. There is a full-time director and 100% dedicated funding but the government covers only 20% and 5% comes from cost recovery. External funding accounts for 75% of the budget.

There is a national blood programme with a strategy developed for 2009–2013. This contains within it a national blood donor programme which is managed via a national and local VNRBD Steering Committees.

There are 17 blood establishments run by the Lao Red Cross Society with one NBTC and 16 provincial BC. There are also five district-level BB run by local hospitals. All provincial hospitals are supplied with blood through this network.

The number of donations rose by 79% from 2005 (22,539) to 2009 (22,539); of these, 96% were VNRBD, which is highly creditable. Collection is done mostly from mobile units (70%) and 72% of
Donations are by men. The young (18–25 years) are the predominant donors (67%). Repeat donations represent 39% of the total and the collection volume is 350 ml/donation.

The Lao Red Cross Society takes the leading role in donor education, donor recruitment and retention, and donor care. However, the NBTC also supports all these activities. Blood donor mobilization campaigns have been organized for WBDD, International Red Cross Day and National Day.

The main administrative barriers to improved donor mobilization include securing more support from the central government, strengthening provincial centres, and increasing the number of trained and qualified staff. The main technical barrier is a lack of formal technical guidelines. In the social area, there is a need to understand barriers to and motivation for blood donation. Other barriers include difficult transportation and communication across large geographical areas in a low-income country.

Future plans are grouped around five strategic objectives of scaling up quantity, scaling up quality, strengthening management, improving advocacy and partnerships, and building institutional capacity. Specific targets, indicators and expected results have been identified in all the five areas. Youth blood donor camps were planned for July 2010 and blood donation drives organized on National Day in December 2010, and International Red Cross Day and WBDD in 2011.

Malaysia

The national blood programme is run largely (90%) by the MoH and 5–10% by other organizations such as university, private and Army hospitals. The national blood policy for BTS was published in April 2008. A patient safety council advises the MoH on a number of patient safety issues including BT. There is also a national BT Committee.

The NBTC is under the MoH and has six Regional BTC below it in a national network. There are 128 BB, 16 screening centres and 124 blood collection centres.

The number of blood donations rose by 18% from 2005 to 2009 (556,359) with >99% VNRBD. There are very few FTD/RD and most of these are in the remote areas of Sabah Province where it is more difficult to secure a base for VNRBD. The BDR in 2009 was 197/10,000 population. Regular donors constituted 61% of total donors in 2009. Men comprise 73% of all donors and 30% of donors are 18–25 years of age. Blood collection was mostly (79%) at mobile sites in 2009. The volume of blood collected per donation was not reported.

Community donor education is carried out mostly by doctors and health education officers and, since the beginning of 2010, targets the youth. Donor recruitment is done by Public Relations Officers and donor organizers. Donor retention and donor care are the responsibility of nurses and doctors. Larger BTC are also able to support donor education, recruitment and retention. Blood donor mobilization campaigns include annual celebration of WBDD.

The major barriers to improved blood donor mobilization include shortage of funding, lack of suitably trained and qualified staff, and lack of fully automated and electronic data-handling systems. Public awareness of and attitudes to blood donation can be further improved. Geographical barriers, especially in East Malaysia, present logistical challenges.

Future plans include a long-term goal to increase the BDR to 5% by 2020. The strategies for this are to intensify public education, improve recruitment of young donors, improve donor retention and find new ways of marketing to low-risk donors.
Mongolia

The Mongolian Donor Law was passed in 2000, which defines responsibilities and commits support. A policy on the provision of donor supply and blood safety was approved in 2007. There is a national plan from 2008 to 2015 within the framework of the 2006–2010 health sector strategic master plan.

The National Centre for Transfusion (NCT) coordinates the national BTS and is a department within the MoH. It has a full-time director and 53 staff with 100% dedicated funding from the government. The NCT, as well as providing a full range of BTS for its locality, is also the national blood authority with statutory responsibility for the national blood programme. The Mongolian Red Cross Society is another statutory organization with legal responsibility for promoting blood donor mobilization, for which it relies heavily on external funding. A National BTS Steering Committee was formed in 2009 with a variety of senior medical experts as members.

The national blood donor programme is part of the national blood programme. National coordination is achieved through the Mongolian Red Cross Society and local coordination through 21 of its provincial branches.

There are 26 BB nationwide and blood collection rose by 13% from 2005 to 2009 with 96% VNRBD. The BDR is low at 75/10 000 population. Blood is collected mostly (55%) from fixed sites and 55% of donations are made by women. Most donors (64%) are young (age 18–25 years) and 60% of donations are repeat donations. The volume of most of the blood collected (85%) is 350 ml/donation.

Blood donor education in the community, blood donor recruitment and retention, and donor care is carried out by the Mongolian Red Cross Society and the NCT. A number of donor mobilization campaigns (with promotional slogans such as “Helping hands without asking return” and “Blood drops from soul”) were carried out between 2008 and 2010, including celebration of the WBDD.

The major administrative barriers to improved blood donor mobilization are a lack of effective cooperation between the Mongolian Red Cross Society and NCT, shortage of funds, and lack of both volunteer and salaried staff. The main technical barrier is a lack of electronic data handling and, in the social area, a lack of understanding among the public regarding blood donation. Other barriers are natural disasters, increasing poverty and disease epidemics such as swine flu.

Future targets for improvement include computerization of donor and donation data, development of disaster contingency plans for the blood supply, expanding cooperation with the BTS in neighbouring China, Russia and other countries, and developing a training programme for transfusion medicine specialists.

Papua New Guinea

The national blood policy has been in draft status since 2009 and there is no nationally coordinated BTS. The NGO St John’s coordinates on an ad hoc basis but there is no full-time director or 100% dedicated funding. There is, however, a National BTS Advisory Committee.

There are 19 government BB, all based in province hospitals. There are also five faith based BB and two mining-based hospitals with BB, bringing the total number of BB in the country to 26. There is operational networking of the government-based BB but this is weak.
There is no national blood programme and blood donor programmes are local and hospital based in coordination with St John’s and the Red Cross Society in some areas.

Blood collection decreased by 7% from 2005 to 2009; the VNBRD was 69% (though there was wide variation [8.8–100%] across provinces) and RD 31%. The BDR is 43/10,000 population and therefore very low. Collection is mainly carried out at mobile sites (80%); 65% of donors are men and 80% are between 16 and 35 years of age. The percentage of repeat donations and the typical blood collection volume were not reported.

Donor education within the community, and donor recruitment and retention is carried out by local VNRBD programme managers. Some IEC is available but no formal recognition of donors is provided. The local VNRBD programme manager and nurses from the BB do their best to provide good donor care and also provide post-donation light refreshment. WBDD has been celebrated since 2008 as well as some other localized campaigns.

The major administrative barriers to improved donor mobilization are poor organization, lack of funding, and suitably trained and qualified staff. In the technical area, even basic modern communication facilities are lacking. In the social area, there is little knowledge of VNRBD. There are also large geographical barriers, language barriers (over 800 languages) and poor public health in a low gross domestic product (GDP) environment.

Plans to improve blood donor mobilization include creation of a national BTS with strengthened governance to overcome the current major problem of fragmentation. A national BTS would be autonomous but accountable to the MoH and may require some kind of public-private partnership.

The Philippines

A national blood policy is in place and the country is committed to achieving 100% VNRBD, though there is currently a bottleneck in supply. The BTS is controlled at the national level through the National Centre for Health Facility Development under the Department of Health (DoH). There is a full-time director and staff, and 100% funding.

The main governing body is the National Council for Blood Services chaired by the DoH with the Philippine Red Cross Society as Deputy Chair. There are several technical subcommittees including one for blood donor mobilization, which is chaired by the Philippine Red Cross Society.

The Philippine National Blood Service is the operational body and currently a process of centralization is ongoing with a national BC being built in Manila that will provide technical advice and later hopes to operationally control BC and BB in the provinces. There is resistance to the process of centralization but is hoped that with improved supply of high-quality blood and blood components, this can be steadily overcome. There is a plan to have an informal network with some newly built collection centres around a centralized hub of processing and testing. Currently, there are at least 2,000 licensed health facilities across the country and at least 200 licensed BB. However, these are not part of a single system so there remains a high degree of fragmentation and a strong need for centralization and rationalization.

There is both a national blood programme and a national blood donor recruitment programme. For the latter, there is a national and also many local coordination committees.

The number of blood donations rose by 30% from 2006 (511,148) to 2008 (658,884) with 58% VNRBD, 41% RD and 1% paid donors. The BDR in 2009 was 40/10,000 population. No data are
available on the percentage of donations collected at fixed and mobile sites, nor the percentage of donations from men and women, or the age profile of blood donors. Similarly, no consolidated data are available for the percentage of repeat donations or the blood collection volume (though 350–450 ml is the typical arrangement for blood donation).

Education of communities on blood donation is carried out by the local blood councils which are under local government control. Currently, introduction of donor education into the school curriculum is under consideration. One of the main strategies to increase blood donation is to expand the number of full-time trained donor recruitment officers and to designate health offices as blood donor recruitment centres. Improved donor retention is hoped to be achieved through improved donor care, which can be achieved through extensive staff training.

WBDD has been celebrated in the Philippines since 2007 and July is stipulated as blood donors’ month.

The major barriers to improved blood donor mobilization in the field of administration are a lack of funding for capital investment, and insufficient qualified and trained staff. The main technical barrier is the lack of systems for electronic data handling. There are also some concerns about the increasing prevalence of both HIV and malaria in blood donors. The main social barriers are the lack of knowledge of the general public about blood donation and the high prevalence of RD. A large geographical spread of over 7,000 islands also presents logistical problems in ensuring continuity of supply, especially to treat bleeding during delivery in a country where there is a high rate of maternal mortality.

The current goals for the BTS are attainment of 100% VNRBD by 2010; strengthening of the blood services network through step-wise centralization of testing and processing; development of sustainable funding for a nationally coordinated BTS; and implementation of a nationwide quality management system.

Republic of Korea

A national blood policy is in place and the BTS is nationally coordinated by the MoH and the Red Cross Society of the Republic of Korea. The administrative office is located within the Korea Red Cross Society and has a full-time director with 1,916 staff. Dedicated funding covers 100% of costs. There is a national blood committee with wide stakeholder involvement including the government regulator, BC, hospitals (users) and patient representatives.

There are 141 BB across the country distributed between the private sector (124 hospital-based and 1 stand-alone) and the Korea Red Cross (16 BC). Only the Korea Red Cross Society BB are operationally networked.

There is a national VNRBD programme which is coordinated through a subgroup of the National Blood Committee.

The number of donations collected rose by 13% from 2005 (2,274,336) to 2009 (2,569,954) of which 100% is VNRBD. There has been no blood selling since 1980. The BDR in 2009 was 530/10,000 population. Blood is collected mostly at fixed sites (63%); 73% of donations are made by men and 62% of donors are aged 18–25 years. Repeat donors account for 47% of the total number of donors and 50% of whole blood is collected at 400 ml/donation.

Donor education is carried out by the Korea Red Cross Society, Korea Centre for Disease Control and some NGOs. The main strategy is to overcome the negative attitudes towards blood donation.
common in Confucian societies and to try and create a culture of donating willingly. Donor recruitment and retention is carried out by the Korea Red Cross Society and independent BC. Customer relationship management (CRM) is an important part of the donor retention strategy. Donor care is the responsibility of every BB and BC, and written procedures ensure that minimum standards are met. There are many regular events for promoting blood donation and WBDD has been celebrated since at least 2008.

The major administrative barriers to improved donor mobilization are financial restrictions and the need for improved donor selection criteria. Technical barriers are not seen as significant. In the social area, there has been a negative feeling about blood donation since a scandal in the early 2000s and there is confusion among donors of where to donate due to fragmentation of the BTS. These issues, and the previously mentioned reluctance to donate that is common in Confucian societies, are all barriers to be overcome. Finally, increasing rates of malaria in some areas may also threaten blood supply.

Plans to improve blood donor mobilization include securing further funding to ensure sustainability of blood services, establishing a national haemovigilance system, improving the level of blood safety, revising donor selection criteria, motivating older people to donate, expanding the number of repeat donors and stimulating public awareness of the need for blood donation.

Singapore

There is no national blood policy within Singapore though BTS are coordinated across this city state by a dedicated section of the MoH called the Health Services Authority. Dedicated funding is provided by the government and covers 43% of the costs, with the remaining 57% provided by cost recovery.

There is only one BC. The national blood donor programme is part of the national blood programme and is managed by a contractual partner, the Singapore Red Cross Society. Coordination of the programme is achieved through a Steering Committee with relevant stakeholders. A Corporate Communications Working Group holds weekly meetings, which discusses public relations, publicity and promotional issues.

The number of blood donations rose by 15% from 2005 (92,327) to 2009 (105,921) with 100% VNRBD and a BDR of 212/10,000 population. Blood is collected mostly at fixed sites (60%) with 63.5% of donors being men and 50% in the age group of 25–50 years. Repeat donors make up 17% of the total. The typical (85%) collection volume is 450 ml/donation.

Donor education, recruitment and retention are performed entirely by the Singapore Red Cross Society under its contract with the blood service. Donor care is the responsibility of the BC. WBDD is celebrated annually and there are recognition awards for repeat donors.

The major administrative barriers to improved donor mobilization are budgetary limits to staff size. In the technical area, there have been great challenges in moving to an electronic and web-based data-handling system, but these are being slowly overcome. In the social area, there is the challenge of an ageing population, a large influx of foreigners and frequent travel by Singaporeans to disease-prevalent areas which may result in their temporary exclusion from blood donation. Other barriers include dangers posed by emerging diseases.

Plans to improve blood donor mobilization include further increasing the BDR and especially targeting areas where donation rates are low through the creation of a satellite centre, maintaining the blood inventory at a minimum of 1,800 units, securing an additional 2,100 new donors and moving to
single-donor platelets by 2015. In addition, there are plans to increase the number of all repeat donors, but especially those with blood group O or A.

**Viet Nam**

The national blood policy is in draft form and under consideration by the MoH. The BTS is coordinated from a technical point of view only by the NIHBT, under the MoH. There is no full-time director. Dedicated funding is low and cost recovery provides a large part of the income. There is no national BT steering committee although there is a National Blood Advisory Committee within the MoH that provides technical advice to the MoH.

There are 75 province hospital BB, 76 district hospital BB and 11 BC (five Regional BC and six area BC). The BB and BC are only loosely linked operationally.

The National Blood Programme (2001–2010) is in the process of being updated for the next 10-year cycle. The National Blood Donor Programme is part of the National Blood Programme and is coordinated by a national and local VNRBD Steering Committees. All committees contain officials from the MoH (or DoH), Viet Nam Red Cross Society, People’s Committees and other social organizations.

The number of donations collected has risen by 64% from 2005 (387,000) to 2009 (632,902) with 79% VNRBD and a BDR of 74/10,000 population. Blood selling is still prevalent in Viet Nam. Blood is mostly collected at mobile units (60%); 58% of donors are men and 55% of them are in the 18–25 years’ age group. Repeat donors are about 20% of the total donor population. Most of the volume collected (70%) is less than 250 ml/donation, with 29% at 350–450 ml and only 1% at 450 ml.

Donor education is largely the responsibility of VNRBD Steering Committees though larger BC also carry out activities in this area. Donor recruitment and retention and donor care is the responsibility of BB and BC with support from the Viet Nam Red Cross Society and volunteer clubs. WBDD and National Blood Donor Day are celebrated annually and regular campaigns are carried out in summer and the lunar new year (Tet) when donations typically fall as students return to their home provinces.

The major administrative barriers to improved donor mobilization are organizational (complicated arrangements), financial (limited funding), and lack of suitably trained and qualified staff. In the technical area, lack of electronic data-handling systems is a problem. In the social area, there is a lack of knowledge about the need for blood donation, especially in rural areas. Difficult geographical terrain also presents logistical challenges to the supply of blood.

Plans to improve blood donor mobilization include reaching a target of 100% VNRBD, further targeting young donors, making the role of the blood donor recruiter a professional one, increasing the quality of donor services and finding sustainable funding for VNRBD activities. Overall, it is hoped to be able to reorganize the system to improve efficiency and effectiveness.

### 2.2 Session II: Structure and design of a national blood donor programme

#### 2.2.1 Major components of a national blood programme: Mr Paul Rogers

The WHO Aide-Memoire for national health policy-makers outlines the recommended main elements of a national blood programme within which a national blood donor programme should be planned.

Development and execution of a blood donor programme requires two particular considerations. First, blood donor mobilization requires a sociomedical approach rather than the technical–scientific and
medical–clinical approaches which characterize the component production and clinical transfusion parts of the blood transfusion chain from the donor’s vein to the patient’s vein. Second, though blood donor mobilization operates in the socio-medical sphere and is often carried out by organizations such as national Red Cross Societies, it does require close and formal coordination with organizations responsible for the scientific and manufacturing aspects of blood collection, testing and processing. Consequently, the national blood donor programme must operate within the context of the entire national blood system.

Planning for blood donor mobilization should start from the calculation of clinical demand rather than supply from donors. Such “demand-side” planning is necessary to more effectively manage stocks so that wastage due to product expiry and situations of zero inventory can be minimized and hopefully avoided. In practical terms, the starting point is the creation of a production plan, from this a collection plan can be created and then a recruitment plan. Such planning must be done at the national, regional and provincial levels to ensure the most effective use of the limited blood supply. In addition to such planning, it is necessary to develop operational capability to deliver the plan.

In many developing countries, there are both chronic and acute shortages of blood. To overcome this, it is often necessary to plan and implement transformational change. Small changes to existing systems are unlikely to result in the large increases required in blood donation. Two examples of successful transformational change in recent years are those of China and Malaysia.

The main challenges to expanding blood donor mobilization is how to integrate blood donor programmes into wider national blood system plans and activities, and how to bring about the transformational change required to secure the blood supply.

2.2.2 Group work: Discuss and review the major gaps for improved national blood donor programmes in the context of the prevailing status of blood donation in the Asia–Pacific Region

In many countries, there is a critical lack of government funding to support blood donor mobilization. Improved advocacy is required to combat this and WHO is also requested to provide recommendations on budgeting and costing analysis for the production of blood units. The situation caused by lack of funds is often exacerbated by poor coordination between the blood transfusion sector and the social organizations responsible for blood donor mobilization. Again, advocacy is required to overcome organizational shortcomings. WHO support is also required to develop models of cooperation between governments, the BTS and the social sector, which is responsible for blood donor mobilization.

Many countries have a lack or shortage of salaried staff for blood donor recruitment and staff retention is difficult due to poor pay and conditions. This is related to the lack of sustainable and transparent funding. Lack of electronic data-handling systems also hampers the effective management of donor information, which could support improved blood donor mobilization.

The areas of donor education, donor care and counselling are all in need of additional support.

Further legislation is required to support organizational change and to set technical requirements for improving the quality and safety of donation. It was recognized that the development and approval of legislation takes time and it is, therefore, necessary to start this process as soon as possible. WHO could provide useful technical support in this area as well as for staff training.

2.3 Session III: Governance and funding

2.3.1 Governance and funding of a national blood donor programme: Dr Yasmin Ayob
The term “governance” was defined as the process by which a governing body ensures that an organization is effectively and efficiently run according to its goals or objectives and in a controlled, transparent, accountable, ethical and participatory way.

The major components of good governance were identified as follows:

- Participation
- Rule of law
- Transparency
- Responsiveness
- Consensus
- Equity and inclusivity
- Effectiveness and efficiency; accountability

The practical expression of these principles was listed as follows:

- Clear goals, priorities, policies and procedures
- Staff awareness of goals, priorities, policies and procedures
- Decisions properly implemented
- Adequate resources
- Good internal and external relationships
- Managing and supporting work
- Assets used to the fullest potential
- Compliance with rules and regulations
- Accountability to stakeholders

Each of these characteristics was discussed in relation to a national blood donor programme as follows:

- It is necessary to formally set a goal to ensure that the blood supply is sufficient to meet clinical requirements. The blood supply should be based on VNRBD, donor safety should be ensured and informed patient consent received.

- All staff must be made regularly and fully aware of the above goals and any associated policies and procedures. Such awareness training for policies and competency training for procedures should be documented.

- Good decision-making should be objective, informed (based on evidence) and transparent in its formulation and implementation.

- Developing a national blood programme requires a serious, sustainable commitment of resources (capital and operating budgets). Senior management have the responsibility of securing sufficient resources for the work to be done. This entails developing a strategy, estimating budget requirements, understanding the requirements of funding agencies and developing proposals accordingly. It is likely that a mix of fund providers, e.g. government plus external agencies, will be necessary, and that there will be a mix of cost recovery plus external subsidy. Development, execution and transparent reporting of costing are necessary to demonstrate to funders that spending is appropriately managed and will help strengthen the case for funding support.
• Relationships (internal and external) must be actively managed with the appropriate balance between autonomy and accountability of both parties. BT involves long-term collaboration so establishing and maintaining credibility and integrity, fairness and equity are essential. Relationship-building also requires strategic networking, which means actively engaging with partners, being aware of trends in the external operating environment, and learning and responding appropriately to them.

• Supporting work means follow-through by supervisors and managers, which includes defining what needs to be done, providing the necessary resources, checking that the work is completed appropriately and taking corrective action if not.

• Resource planning is critical in all environments and requires active management. A key element is care of resources. For facilities and equipment, this means effective maintenance and repair; for staff, this means enactment of a good human resources (HR) policy and for funds, this means effective cost control.

• Good governance also means ensuring compliance with rules and regulations. This is essential to ensure minimum standards of safety and quality, and accountability to regulatory or supervisory bodies.

• There are multiple stakeholders to whom the BTS is accountable, such as the MoH, which has the final responsibility for blood transfusion safety, quality and sufficiency; the community that donates blood; patients and their families; treating clinicians and medical personnel; hospitals as end-users; funding agencies as resource providers. It is necessary to set up systems and procedures which ensure that the legitimate needs of all these stakeholders are continuously met and reviewed.

ICT can be an enabler of good governance by enhancing coordination and cooperation across the country.

The point was made that underpinning good governance practices is the value system within the organization. Mutual respect and trust, openness and transparency are, therefore, all key values that need to be actively cultivated within the BTS.

2.3.2 Discussion

It was agreed that good governance starts with the government taking responsibility for patient safety. Furthermore, governments should set up coherent systems for organizations involved in the BTS, which ensure autonomy (and authority) in the delegated areas of responsibility as well as accountability within the context of the whole system.

Provision of sufficient levels of funding became the focal point of the discussion. It was agreed that funding is likely to involve a balance between cost recovery and subsidy. The proportion of funds provided by each of the two components differs between Member States but involves certain common considerations. For example, regarding cost recovery, it was agreed that social health insurance (SHI) should be used as much as possible to recover costs. Additionally, patients are also often donors and therefore high patient fees may erode the volunteer donor base. Furthermore, the issue of cost recovery must be carried out within the context of “not-for-profit” operations to ensure ethical use of the donor’s gift and avoid losing the trust of blood donors. It was agreed that in all cost recovery-related issues, there is a need to develop accurate and transparent mechanisms to track costs and enable good cost efficiency. It was noted that centralized procurement of essential items can also reduce unit production costs.
Accurate costing studies, as carried out on the possible adoption of NAT in Korea, can also be used to build case studies aimed at securing additional funding for the introduction of new technology to improve blood safety.

For funding subsidy (i.e., funding in addition to cost recovery), it may be possible to link BTS development to other national programmes. For example, in China, significant infrastructure investment and funds for training and development of quality systems was provided by the central government to many BC across the country under the National AIDS Prevention Programme.

2.4 Session IV: Strategies for a national donor programme

2.4.1 Developing appropriate strategies for a national blood donor programme: Dr Yasmin Ayob

Strategy development should begin with a series of simple questions about the mission, direction and key issues before a plan is developed. The need for strategy was identified as a way to increase the probability of success and overcome resistance. Strategy should be built on the joint foundations of “vision” (the desired future) and “mission” (purpose and scope of an organization). An example of a vision for a national blood donor programme could be as follows: a blood donor programme that serves the nation sensitively, with well-trained, motivated, friendly and respectful staff providing an adequate blood supply of good quality whenever and wherever it is needed.

To develop a strategy, it is first necessary to define in detail the demand for services and products. Standard management techniques such as an analysis of strengths, weaknesses, opportunities, threats (SWOT) are then useful for elaborating strategies to meet the demand.

Estimation of needs must be based on epidemiological and public health data such as disease prevalence, patterns of clinical use, population demographics of donors and patients, number and location of hospital beds, plans for future changes in demand and use, etc. For guidance, WHO estimates the following typical or average demand figures: 20 units fresh blood components/1,000 population/year; 45–50 units fresh blood components/1,000 population/year if fractionated products are included; 5–7 units fresh blood components/bed/year in primary health-care (PHC) facilities; 7–15 units fresh blood components/bed/year in acute treatment facilities; 25–30 units fresh blood components/bed/year in specialized treatment centres. From these demand figures, it is possible to calculate the number of units to be produced and collected, and the corresponding number of donors that need to be recruited.

A SWOT analysis of the internal and external environment will provide information useful for strategy development. For an internal SWOT analysis, at least the following areas (with some suggested issues for consideration) should be included: Management capability and organizational structure (Is it effective? Does information flow freely? Is it responsive to client needs?); Planning (Is it participatory? Is planning short-term and long-term?); Coordination (How well do departments work together?); Staffing (Are roles clear? Is training effective and performance monitored?); Supervision (How effective is it?); Management information (Do managers have sufficient accurate information to be able to make decisions to meet programme objectives?); What are the capabilities (capacity) of programme to provide services? Does it match the needs/demand? How can quality be improved? Does it meet client expectations?); Financing capabilities (What are the current levels of self-financing and outside financing? How stable are these sources of finance?).

Using data generated from an estimation of needs and information resulting from a consideration of key issues, such as those generated from the SWOT analysis, a strategy can begin to be developed. Strategy is about defining how to meet the estimated needs and demand. For example, how can we achieve our target for blood donations of 20 per 1,000 population in the next 12 months? How will we
establish a series of education programmes targeting specific groups that we have identified? How do we provide these educational and information materials that make our target group react by donating blood? How do we ensure that once they have donated blood they continue to do so regularly? How can we provide the service to our customers – donors, blood users?

Some strategies identified in the different technical areas were as follows:

- **Blood collection**: maintenance of a donor registry, facilities conducive to blood donation, focus on donor retention by providing good donor care;

- **Promotion of blood donation**: marketing and education campaigns rooted in culture, attitudes and expectations of the community, use of professionals for promotion activities;

- **Social marketing**: campaigns based on social research and information which must be clear, relevant, attract attention and urge a response;

- **Managing donors and donations**: try to convert FTD to repeat donors, increase the number of facilities for donation, extend donation hours, create a pleasant and friendly environment, keep accurate donor records, manage donor call-up, carry out research to monitor community attitudes, lapsed donors, etc.

- **Donor service**: treat donors as customers, care for the donors and seek feedback from them, be responsive;

- **Quality management**: develop a culture of quality, introduce and implement appropriate standards, identify and manage critical control points, closely manage documentation, ensure all staff are appropriately trained.

The importance of developing strategies to secure funding and control costs was also briefly discussed. Establishing sustainable funding is of obvious importance and requires sensitization of funding agencies and an understanding of their requirements, while cost control not only enables efficient use of limited resources but also demonstrates competence which in turn can help secure funding.

Once strategies have been developed to meet the demands and needs, an operational plan must be developed. Strategies define how something is to be achieved while plans define what must be done. Plans must take into account available resources such as staff, funds, facilities and equipment.

A case study from Malaysia was briefly described where there was a structural reorganization of the blood donor programme targeted to dramatically increase the total number of donations collected and to reduce the dependency on FTD/RD. This was achieved with the following strategies: increased mobile collections, increased numbers of donor recruiters, appointment of health education officers to manage public education, increase in the number of nurses performing blood collection, provision of regular training and motivation to staff, credentialing of nurses’ signing for all their activities, provision of proper vehicles for mobile clinics, conversion of replacement donors to voluntary donors and implementation of QMS in blood procurement.

2.4.2 Group work: Design of an appropriate and effective donor mobilization strategy: Why? What? How?
Group A

Proposed that in most countries, there is a need for improved organizational arrangements with clearer definitions of the roles of different parties within the national blood system, and sufficient commitment from the government in terms of stated responsibility, financial support and creation of regulatory systems. The major challenge identified was how to successfully lobby for change.

Most countries in the Region continue to operate with blood shortages and with an overreliance on replacement donations. Programmes to increase the recruitment of new donors, increase donor retention, educate the young through the education system and raise community awareness of the need of blood donation were identified as feasible over a five- to ten-year time span.

Shortage of sufficiently qualified and trained personnel for blood donor recruitment and blood collection was identified as a universal problem. Securing funding to recruit new staff was seen as particularly problematic, although training for donor recruiters could be strengthened.

It was acknowledged that creativity was more important than funding to improve the recruitment and retention of blood donors. Expressing appreciation and formally recognizing that the act of blood donation is crucial, a variety of activities can be introduced step-wise, depending on the prevailing social and cultural habits and traditions.

It was agreed that insufficient focus is often given to providing suitable information to deter or defer unsuitable donors or on the actions required to follow up temporarily deferred donors. Information technology (IT) was seen as highly feasible to rectify this through the development of appropriate procedures and training for all staff.

Including information about VNRBD in the school curriculum was seen as being very feasible, provided support from the Ministry of Education could be secured.

Securing sustainable funding from various sources (government, sponsors) was seen as the main challenge in developing effective social marketing campaigns.

The absence of an electronic system for management of donation and donor data compromises blood safety and imposes an additional strain on the limited HR in BTS in most countries. Securing sufficient capital investment (which is large) from the government was seen as a difficult challenge.

The absence of trained quality managers compromises blood quality, but this could begin to be addressed by developing and monitoring performance against some simple quality indicators.

Group B

This group identified the "Why?" as follows. Effective blood donor mobilization programmes are required to overcome insufficiencies in the supply and quality of blood, and to strengthen organizational systems for donor recruitment, which are widely regarded as being weak.

The "What?" was identified as the vision to ensure safe blood for all and the mission to ensure the quality, safety, adequacy and cost-effectiveness of blood supply through 100% VNRBD in accordance with WHO standards.

The "How?" was identified as being achievable through targeting prospective donors and by focusing on donor retention and donor care. For targeting prospective donors, several groups were identified. The youth could be targeted through WBDD, schools and clubs, incorporation of VNRBD
into the educational curriculum, use of social network sites and SMS, healthy lifestyle promotion and promotion of non-blood-related community support activities. Young people at universities and colleges could be similarly targeted but, in addition, fashionable blood donor identity cards could be provided. The main adult groups identified for targeting were working class people and housewives, to be reached through tailored IEC material and by identifying them as heroes. Religious organizations, women’s groups and rural communities were identified as having the potential for increased donation. State officials should be targeted for increased advocacy on blood donation.

The strengths and weaknesses, and strategies for improvement of the key elements of a national blood donor programme were discussed. Concerning governance, there is a range of situations in different countries, from clear government commitment and effective regulations (e.g., in Malaysia), to lack of commitment and absence of regulations (e.g., Papua New Guinea). Lack of funding and sufficient HR is common in nearly all Member States. Further lobbying with the government is the main strategy required to address all these issues. With regard to quality systems, effective operational mechanisms are lacking in many countries, and extensive training and creation of quality documents was suggested as a first step. Many countries have donor management programmes but there is a need to replace paid and FTD/RD with new and greater numbers of repeat and retained VNRBD.

It was also noted that for blood donor management to be successful, all the other elements of the blood collection process must be in place.
Group C

Identified a range of strategies and programme activities for effective donor mobilization. Four strategies were identified: increasing VNRBD; improving retention of blood donors; improving public trust in the BTS; improving networking with local health-care user facilities. Programme activities for increasing the number of VNRBD would focus on improving social marketing, improving donor services at fixed sites and expanding mobile collections. Donor retention programmes would be based on the creation of donor clubs, increased use of ICT for donor reminders and by holding peer education sessions for donors. To improve public trust in the BTS, there is a need to strengthen QMS and increase public information to demonstrate transparency in BTS activities.

2.4.3 Discussion

It was generally agreed that strategy development needs to take into account the local situation. For example, in China, a strategy based on a strong law and with central planning was effective. Interestingly, in the Republic of Korea, the management law in Korea states that public organizations should try to support blood donation and public officials are encouraged to donate. In many countries, however, it is recognized that a strong law is not sufficient and that social marketing is extensively required.

Strategy development for mobilization of blood donors should be set within the context of national blood programmes. A key strategic challenge in many countries is to improve coordination between the BTS and the voluntary sector responsible for donor mobilization. The BTS also needs to strengthen lobbying of government officials to secure political and financial support.

Two interesting strategic approaches were proposed. First, China set blood donation targets (and achievements) for all provinces in the public domain. This stimulated some healthy competition between provinces and donations steadily increased with no impact on quality. Second, linking the impact of the strategy to health outcome indicators such as maternal mortality can also be effective.

Two other important strategic elements were recognized. First, the use of rigorous social research to develop an understanding of donor attitudes and second, to study the logistics of blood collection and distribution to ensure that remote communities, as well as urban communities, can have equitable access to a safe blood supply.

The importance of developing suitable quantifiable indicators and measures to monitor the impact of the strategies selected was also emphasized.

WHO was called to develop a framework that would help countries develop strategies suitable to the local conditions.

2.5 Session V: From strategies to planning and implementation of blood donor programme

2.5.1 How to make and implement plans for education, recruitment, retention and care of donors: Dr Soisaang Phikulsod

The starting point for planning in this area should be a suitable donor policy. Such a policy should make a commitment to 100% VNRBD, and collection of regular and sufficient donations with strong systems to ensure patient and donor safety.
A “gap analysis” can be used to initiate planning by comparing the existing situation to the intended goal, and identifying the major resource and action gaps and needs.

Once a donor policy is in place, the gaps have been identified and strategies clarified, it is advisable to form a task force or team to develop the detailed action plan. As a blood donor programme is a collaborative activity involving other partners, it is better that such partners are represented in the planning team. Brainstorming is a potentially useful technique to begin the planning process as it will help to ensure that all stakeholders have the opportunity to present their ideas before detailed planning commences.

The national donor programme should include a public relations element, which seeks to achieve the following transformations: from hostility to sympathy, prejudice to acceptance, apathy to interest and ignorance to knowledge. Some consideration should also be given to a balance between modern communication methods such as SMS, social networking sites, etc., and more established communication methods such as TV, radio, billboards, etc.

Plans for donor education should concentrate on the provision of material in an appropriate and informative manner in an attempt to not only promote knowledge of blood transfusion but also act as a start to the process of triggering attitudinal change. Donor education also has a role in educating donors about self-exclusion, and allaying fears about the process of donation and blood donation safety. Many programmes are targeted at schools and the youth. Another important role of donor education that should not be forgotten is that of helping to establish public trust in the BTS organizations operating the VNRBD programme.

When planning to expand donor recruitment and improve donor retention, it is necessary to ensure good coordination with local communities to ensure that the plans are relevant and realistic. Selection of suitable staff is critical for success in this area as they must be able to communicate effectively and in a credible, responsive and positive way with donors. Donor retention is concerned especially with ensuring that there is good donor care and a high degree of donor satisfaction.

All plans must include an element of monitoring to ensure that they are being carried out as planned and the required targets and results are being achieved or, if this is not happening, to ensure that changes are made to re-establish effectiveness. This must ultimately be achieved by management follow up. However, the use of key performance indicators (KPI) will yield important information for both operational and programme management decision-making. There are many KPI to choose from, such as donor satisfaction, frequency of donation, prevalence of TTI, etc., so it is important to carefully select KPI that are both easily measurable and aligned with the required results of the programme.

2.5.2 Group Work for session V: Making and implementing a national blood donor programme

Group A

Group A identified three targets for the programme: 100% VNRBD within 10 years; regular and sufficient donation; and donor and patient safety.

For each target, which should be developed in a SMART (specific, measurable, attainable, relevant and time bound) way, actions, methods and materials, and monitoring and evaluation (M&E) indicators were identified.

For a target of 100% VNRBD in 10 years, the action plan should include donor education focused towards key groups using talk shows and suitable IEC materials, and the conversion of FTD/RD to
VNRBD through communicating the needs of all patients. M&E activities should include maintenance of effective donor records and management of donor follow up.

**Group B**

Group B identified activities and responsibilities for the five strategies of donor retention: increased VNRBD, recall of lapsed donors, conversion of deferred donors to donor recruiters and increased self-deferral of donors.

The activities (and responsible party) for donor retention were listed as: improved infrastructure and facilities at fixed sites and easily accessible venues for mobile sites (Government/NGO/partners); competent and friendly personnel (BTS); effective donor recall system (BTS); giving recognition and commendation to regular donors (Government/NGO/partners/BTS); effective and efficient mobile collections (BTS); effective donor feedback (BTS); establishment of donor associations to spearhead blood donor activities (BTS/NGOs/partners); demonstrating the component production process to blood donor mobilisers and recruiters and also to blood donors.

The activities (and responsible party) for increased VNRBD were listed as: social research (BTS/academic institutions); talks and communication (BTS); IEC materials and media campaigns (BTS); collaboration with receptive organizations (BTSpPartners).

The activities (and responsible party) for recall of lapsed donors were listed as: research into the reasons for donors lapsing (BTS); and effective donor recall systems (BTS).

The responsibility for conversion of deferred donors to donor recruiters was identified as a responsibility of the BTS.

The activities (and responsible party) for self-deferral were listed as: health education, IEC materials (BTS); and development of stringent donor deferral criteria (BTS/Government).

Based on the strategies and programme activities discussed in the previous sessions, Group C identified a range of detailed plans and outcomes. These are listed in Annex 5.3.

**2.6 Session VI: Collaboration with partners and community awareness**

2.6.1 Building social capital: collaboration with partners and community awareness: Dr Soisaang Phikulsod

The concept of social capital as the idea that social networks have some value was introduced. Blood donor recruitment strategies can be developed to use the “capital” within social networks to potentially increase the rate of blood donation. This entails connecting with various social networks and partners, and using them to promote VNRBD. Such connections were defined as being either horizontal (with public and private sector organizations) or vertical (with local communities).

It was proposed that social marketing (the systematic application of marketing techniques to achieve specific behavioural goals for a social good) be used to build on existing capital. New social capital should also be developed to promote VNRBD and achieve a level of social cooperation between different sectors which can be integrated with national blood donor programmes.

For horizontal networking, it was suggested that collaborative relationships be built with the private sector to secure their support for VNRBD as part of their corporate social responsibility programmes.
Vertical networking should be focused towards raising awareness within the community of the need for blood donation to secure blood supplies. Such an approach should lead to greater ownership within communities for blood donor programmes.

It was noted that while increased integration with social networks will extend cooperation and potentially improve blood donation rates, it will also result in greater ownership of social partners in the blood donor programme. While this potentially improves blood donor rates, it requires close management to ensure that the safety of donors, patients and the community stay focused and the “not for profit” nature of blood services is not compromised.

Integration with social network partners can be built into strategy formulation, planning and implementation of blood donor programmes. It may be necessary to create various subcommittees within the programmes (examples of donor education, donor recruitment, public relations and fund-raising were given) to ensure that the particular expertise of the social network partners is appropriately utilized. The goal of this approach is to increase the level of VNRBD by harnessing the added power of social networks.

2.6.2 Group work: Development of social capital to increase VNRBD

**Group A**

Group A proposed that social capital could be developed through three main areas. Increasing awareness of the need for blood in communities should particularly target the youth and VIP involvement may be beneficial for this. Development of recruitment partnerships with third parties should focus on clearly demonstrating the need for blood services and try to build sustainable relationships based on clear definitions of roles responsibilities, benefits and commitments. In addition, IEC materials should be included as part of the school curricula with the aim of starting positive social trends towards increased VNRBD.

**Group B**

Group B recognized the value of trying to use social capital, especially in resource-limited environments. Philanthropists and religious groups were identified as potential horizontal networking partners in addition to typical corporate groups. One suggestion was to specifically target groups whose products cause social harm, such as tobacco and alcohol producers and merchants, and to persuade them to repay some of their “social debt” through supporting positive social activities such as VNRBD. Possible targets for vertical network groups were identified as donor organizations, patient organizations and medical societies. Three strategies were suggested for utilization of social capital. First, improve the public image of the BTS through the use of various promotional devices; second, actively market the BTS to high-profile corporate and NGO groups, and third, seek the support of third parties for blood donor campaigns.

**Group C**

Group C suggested that social capital for VNRBD could be built through establishment of a blood donor association, expanded programmes for various blood donor clubs, and through fund-raising and sponsorship.
2.6.3 Discussion

It was agreed that there are obvious benefits but also dangers in trying to use social capital to improve VNRBD. It was agreed that the BTS, as a publicly funded entity that not only provides products for treatment within local communities but also the source material for such products, is derived from voluntary community blood donation. Thus, transparency is essential to ensure the appropriate use of social capital. On a more operational level, it is necessary to clarify to potential partners what commitments are being sought from them, what benefits they might accrue and what the boundaries of the partnership are.

2.7 Session VII: Monitoring, evaluation and control of a national blood programme

2.7.1 Monitoring and evaluation of a national blood donor programme: Dr Shen Xing Feng, Vice President, Shanghai (Red Cross) Blood Centre

Lessons from the successful national blood donor programme in China were shared. VNRBD across China rose from <30% in 1998 and steadily replaced non-VNRBD to reach nearly 100% in 2008. The success of this programme has been recognized and acknowledged by WHO.

Within China, the foundation of this success is attributed to the development, implementation and enforcement of a strong regulatory framework. This included enactment of a national law on blood donation, which established several measures (including the guarantee of free blood transfusion for all blood donors) but especially the establishment of a new system for VNRBD. Included in the framework was a blood centre development programme incorporated into the national strategy for the control of HIV. National technical standards and local administrative requirements were also introduced. Specifically relevant to blood donor programmes, however, was the introduction of incentives to encourage provincial governments to actively promote VNRBD as well as establish a system for the recognition of both regular blood donors and private or public organizations. It is believed that this set of incentives and rewards is the second major reason for the wide success of the national blood donor programme.

A fairly typical set of recognition awards are in place for individuals who make multiple blood donations, including aphaeresis donations and, more recently, stem cell donations. There is also a national award campaign held every two years.

A set of awards is also offered to both individuals and organizations that support blood donation through monetary donation. Also included in this category is an award for individuals making a special year-round contribution to VNRBD.

The province or city reward is perhaps unique to China and seeks to encourage local government authorities to actively promote VNRBD and a range of other social and environmental issues. The five categories on which performance is assessed with respect to VNRBD are as follows:

- Clinical use of blood is 100% from VNRBD.
- For the population between the ages of 15 and 55 years, >85% of urban residents, >75% of rural residents and >95% of school students have been exposed to information about VNRBD.
- Community radio stations play public service announcements on VNRBD promotion at least twice daily between 07:00 and 10:00 am.
- Public service information relating to VNRBD is displayed free of charge at >70% of dedicated public announcement sites.
- The number and location of fixed sites for blood collection is in accordance with target rates for the local clinical usage of blood.
The performance of all provinces and cities is put in the public domain and it is believed that this element of healthy competition has improved the success of blood donor programmes.

In further support of VNRBD and its acknowledged links to the community, there are awards also for voluntary service in association with VNRBD based on the number of hours of community service provided by an individual.

Further awards are in place to encourage donation by military and police personnel.

Since their inception, monitoring of the number of awards of all types across the country has shown a steady increase in all categories.

The success of the blood donor programme in China is attributed to the strong legislative framework combined with a structured and comprehensive incentive programme.

2.7.2 Group work: Setting targets and indicators

Prior to the group work, participants were reminded of the activity cycle: Plan/Do/Check/Adjust.

A range of targets and indicators were developed by the groups. The indicators are listed in Annex 5.4.

2.7.3 Discussion

It was emphasized that targets and indicators are management tools used to monitor and evaluate the success of programmes. This has several implications. First, they must be carefully selected and formulated to ensure that they measure the key elements of the programme. It is clear that they must also be accurately and regularly reported. It was also agreed that it is necessary to have an active rather than a passive style of management to ensure that targets are being met or that appropriate changes are made if targets are not being met.

The benefit of displaying indicators and performance results to all staff was also recognized. In addition, funding agencies are increasingly requiring the use of M&E with associated target-setting and reporting of indicators, so the use of such an approach is likely to become a standard requirement.

3. RECOMMENDATIONS

3.1 For Member States

1. Establish/strengthen the national blood donor programme to augment voluntary blood donations to meet the national requirements and allocate appropriate resources for its efficient implementation. Funding mechanisms available under Global Fund to fight AIDS, Tuberculosis and Malaria may be explored, if needed.

2. Organize extensive public campaigns to mobilize communities for regular voluntary blood donations.
3. Forge sustainable partnerships among various partners, especially NGOs operating at the community level, to educate, recruit and retain voluntary blood donors.

4. Build the capacity of blood transfusion services through infrastructure strengthening and training of staff to ensure the care of donors before, during and after blood donation.

5. Integrate the principles and practices of a quality system at all levels of the blood donation process.

6. Utilize modern information technology tools in managing blood centres, especially blood donor databases.

7. Undertake operational research to improve the knowledge, attitude and behaviour of communities towards voluntary blood donations.

3.2 For WHO

1. Provide technical support for developing and implementing national blood donor programmes as well as for their effective monitoring.

2. Develop generic standards for blood donor recruitment and disseminate the same to all Member States.

3. Provide assistance in mobilizing resources to strengthen national blood donor programmes.

4. Assist in building the capacity of countries for efficient management of blood donor programmes.

5. Facilitate intercountry information-sharing on advances and success stories in the area of blood donation.

3.3 Other

WHO should consider providing advice on costing of the BTS and invite officials from regulatory authorities to future workshops.
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