

SAFE BLOOD TRANSFUSION

Number of paid donors reduced to zero

Dhaka Medical College Hospital started blood transfusion service in 1950 for the first time in Bangladesh. To ensure supply of safe blood for humans through screening, the Safe Blood Transfusion Program (SBTP) was launched in 2000 with the assistance of UNDP under the Health and Population Sector Program (HPSP) 1998-2003. Under this program, blood-screening facilities were developed in 99 blood transfusion centers. In 2004, the activities of the Safe Blood Transfusion Program received financial support from the World Bank and DFID through IDA credit. A Memorandum of Understanding (MoU) was signed between MoHFW and WHO under HIV/AIDS Prevention Project (HAPP) with technical assistance from the latter. This continued till 2007. Since then, the activities were being implemented under the Health, Nutrition and Population Sector Program (HNPSPP) 2003-2011. The activity is being continued also under the new Health, Population and Nutrition Sector Development Program (HPNSDP) 2011-2016.

The Safe Blood Transfusion Program made a good progress over the past years through reduction in the number of paid donors from 70% to 0%, capacity-building for blood-screening in all blood transfusion centers for HIV, hepatitis B and C, syphilis, and malaria and expansion of activities up to the upazila health complex level. Currently, 203 blood transfusion centers, with 89 in the upazila level, are functional under the program. Blood-component separation facilities have been developed in 18 blood transfusion centers. Six centers have been equipped with modern mobile vans for blood-collection from outdoor. Following is a profile of the SBTP as of 2011:

No. of blood transfusion centers supported currently by SBTP	203
No. of blood transfusion centers at the upazila level	89
No. of centers where blood-component separation facilities exist	18
No. of centers with mobile vans for blood-collection	6

During 2001 to 2011, a total of 28,55,468 units of blood were tested in 203 centers, of which 33,836 units were rejected (1.2%) due to the evidence of transfusion-transmitted infections (TTIs). Of the rejected units, 26,064 (77.0%) were for hepatitis B; 3,454 (10.2%) for hepatitis C; 2,979 (8.8%) for syphilis, 1,188 (3.2%) for malarial parasites, and 150 (0.4%) for HIV (Figure 12.1). A total of 315,098 units of blood-components were produced by 18 blood transfusion centers during 2008-2011. Of these blood components, 195,622 were produced in 2011.

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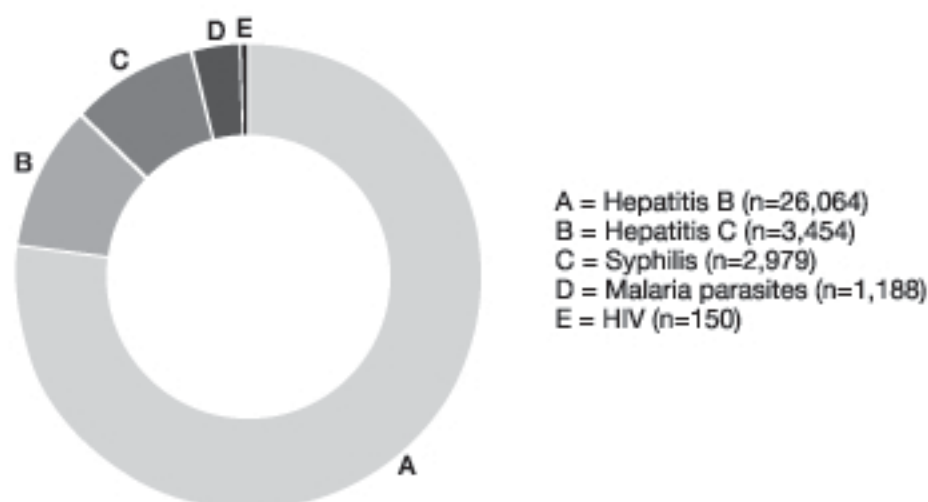


Figure 12.1. Percentage of units of blood rejected due to various reasons from 2001 to 2011 (Total units rejected = 33836)

Table 12 shows the year-wise distribution of the number of units of rejected blood due to various reasons based on the screening tests.

Table 12. Cumulative screening report for blood with TTIs (2001–2011)

Year	No. of units tested	HIV+ve	Hepatitis B+ve	Hepatitis C+ve	Syphilis+ve	Malarial parasite+ve
2001	99,653	2	1,381	82	290	7
2002	170,948	4	2,433	246	655	53
2003	180,015	1	1,900	1,024	428	13
2004	121,993	36	1,284	251	257	8
2005	203,575	8	1,689	201	305	6
2006	228,127	20	1,814	242	209	1
2007	324,005	27	2,764	251	215	1,013
2008	369,026	13	2,996	309	143	4
2009	358,067	9	2,135	181	115	7
2010	384,687	9	3,313	395	183	37
2011	4,15,372	*21	4,356	272	179	39
Total	28,55,468	150	26,064	3,454	2,979	1188

*Done by rapid test

In 2011, a total of 203,304 units of blood-components were produced by the blood centers. These included 37,515 units of red blood cell concentrate, 24,526 units of fresh frozen plasma, 21,359 units of platelet concentrate, 291 units of Platelet Rich Plasma (PRP), 12 units of Fresh Plasma (FP), and 58 units of cryoprecipitate.

The Safe Blood Transfusion Act 2002 of Bangladesh is in place that circulated the rules and regulations in 2008. There is a reference laboratory for blood transfusion at the new annex building of Dhaka Medical College Hospital. The functions of the reference laboratory are to support various organizations for training and

monitoring. The reference laboratory is also testing the referred samples and validation of kits. The professionals engaged in the Safe Blood Transfusion Program deeply feel that a National Blood Center should be established as soon as possible to further streamline the stewardship role and coordination functions for the current fragmented blood transfusion services operating throughout the country.

The blood centers under the Safe Blood Transfusion Program collectively gathered a total of 2855,468 units of blood from 2001 to 2011. In 2011, the program personnel collected 415,372 units of blood. Figure 12.2 shows the year-wise collection of the number of blood units by the blood centers under SBTP.

A number of voluntary or non-profit organizations also contribute to encourage healthy donors for donating blood voluntarily. Some of these organizations have their own set-up for collecting, testing, storing, and distributing blood or blood products. Figure 12.3 shows the year-wise collection by the major voluntary blood-donation organizations.

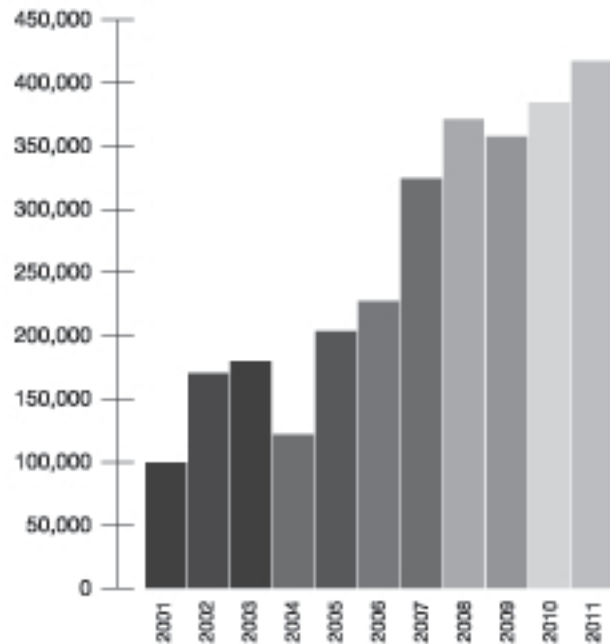


Figure 12.2 Year-wise collected numbers of blood units by the blood centers under SBTP

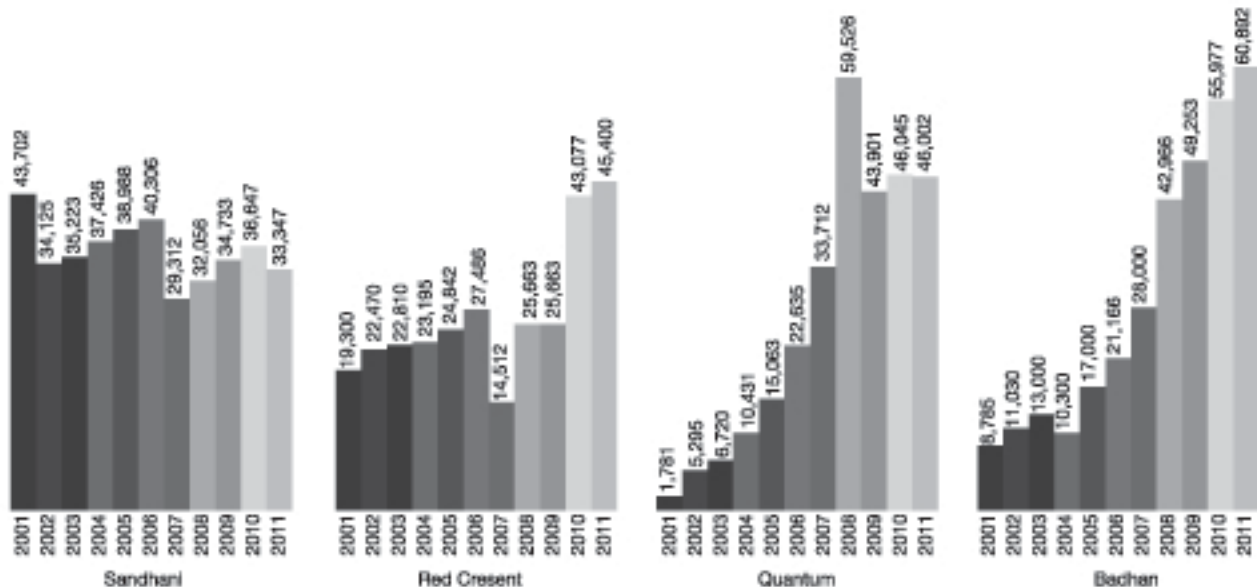


Figure 12.3. Year-wise number of collected units of blood by different voluntary blood-donation organizations