

## **CHAPTER 8**

### **CADAVERIC ORGAN AND TISSUE DONATION**

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**CADAVERIC ORGAN AND TISSUE DONATION**

There was an increase in the number of potential cadaveric donors referred to the National Transplant Procurement Unit (NTPMU) nationwide from 73 the previous year to 112 in 2008. The number of actual donors remained about the same at 26 for the year, which translated to a conversion rate of 23% and a donation rate of 0.94 per million population (Table 8.1). Of these 13 (50%) were brain dead donors who donated organs and tissues which were procured in the operating theatre, while another 13 were tissue donations after cardiac death (Table 8.2, Table 8.11). In total 87 organs and tissues were procured, comprising 40 corneas, 26 kidneys, 4 livers, 13 pairs of heart valves and 4 sets of long bones.

The number of donations throughout the year did not conform to any particular trend (Table 8.3). There were 4 paediatric donors (age 1 – 9 years) and 4 teenage donors which together constitute 31% of the total number of donors (Table 8.4). Another 23% (6/26) were in their twenties which means that 54% of donors were under the age of thirty. The mean age was 30.8 years, age range 2 – 71 years. Male donors outnumber female three to one (Table 8.5).

Two thirds of donors were Chinese, 23% Indian and 12% others by ethnicity (Table 8.6), 62% were Buddhist by religion (Table 8.7). Two donors were non-Malaysian (Table 8.8). Majority of the donors came from the Federal Territory of Kuala Lumpur (31%) followed by Johor, Selangor and Perak (12% each) (Table 8.9). Only two out of the 26 actual donors (8%) had pledged to donate before and carried the donor card (Table 8.10).

Cardiac disease was the most common cause of death, accounting for 23% of the brain death and 54% of the cardiac death. Another 23% of brain dead donors and 15% of post-cardiac death tissue donors died from motor vehicle accidents (Table 8.12). In 2008, the most common blood group among the 13 organ donors was group O rhesus positive (46%), followed by A positive (31%), B positive (15%), only 1 (8%) from group A negative and no AB group (Table 8.13). When considered in totality since 1997, blood group O positive remained the most common group (40%) followed by B positive and A positive.

Most of the donations (58%) took place in Ministry of Health hospitals with 6 (23%) from private hospitals and 3 (12%) from University hospitals (Table 8.14a). Sixty-five percent of the donors were found in the ICU, but there were also four direct referrals for tissue donation from the mortuary with three from the ward and one from emergency department (“brought in dead” BID) (Table 8.14b).

Organ donors were sent to the operating theatre for procurement of organs (13/13) while tissues were mainly procured in the mortuary (12/13) (Table 8.14c). For the organ donors all were on inotropic support before procurement with the commonest combination being dopamine and noradrenaline (6/13) (Table 8.15).

Table 8.1: Number of Donations by Year, 1997-2008

Number of procurement by year N=213												
Year	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Number of donors	5	7	4	13	24	30	25	16	13	25	25	26
Rate of procurement (per million population)	0.23	0.32	0.18	0.55	1.00	1.22	1.00	0.63	0.50	0.94	0.92	0.94

Figure 8.1: Number of Donations by Year, 1997-2008

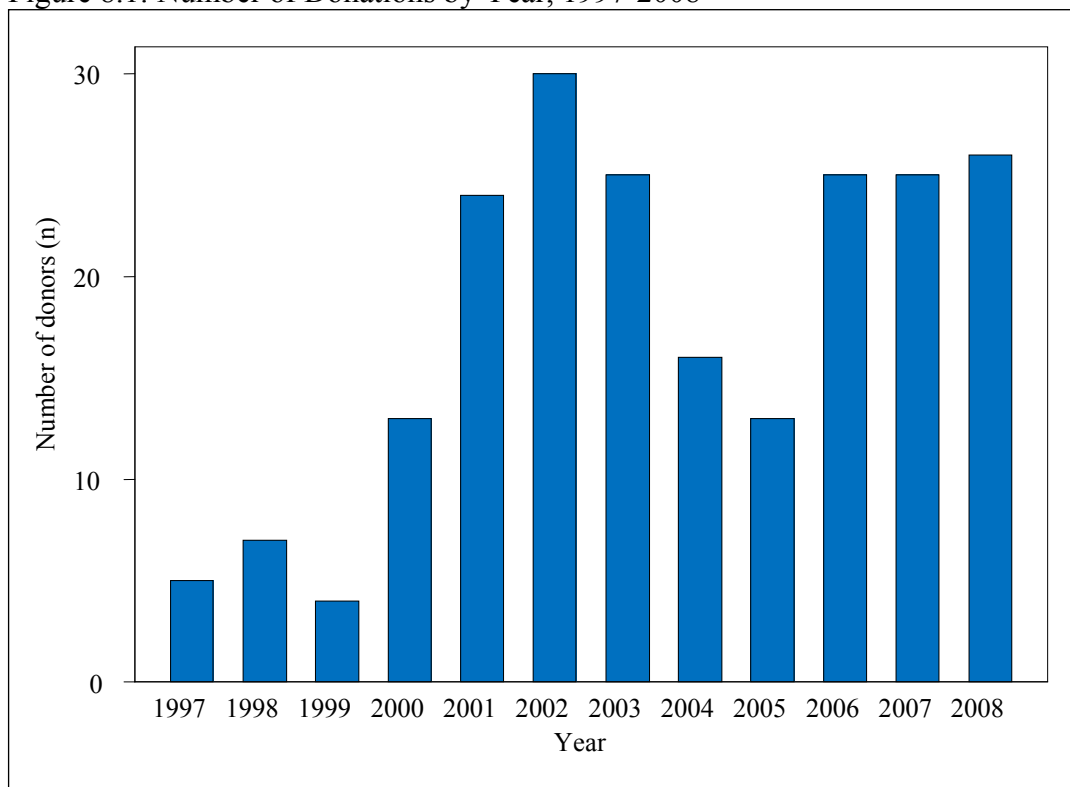


Table 8.2: Number of organs procured, 1997-2008

Organs procured	Number of procurement by year N=213											
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Cornea	4	10	6	18	32	48	40	20	22	38	32	40
Heart	1	3	2	3	4	0	2	0	1	1	3	0
Liver	0	0	2	2	1	2	1	3	3	6	5	4
Kidney	8	10	6	22	38	26	16	18	8	26	28	26
Heart valve	0	1	2	8	10	10	10	10	6	15	8	13
Bone	0	1	0	3	2	6	4	5	2	5	5	4
Skin	0	0	0	2	2	2	0	1	0	3	0	0
Lung	0	0	0	0	0	0	0	0	1	1	2	0

Table 8.3: Potential Donor Referrals and Actual Donations by month, 2008

Month	No. of donors			
	Potential Donor Referrals	Actual Donors		
		Brain Death Organ Donors (BD)	Cardiac Death Tissue Donors (CD)	Total
Jan	10	1	0	1
Feb	10	1	3	4
Mar	14	3	0	3
Apr	9	0	1	1
May	6	1	0	1
Jun	17	3	3	6
Jul	11	0	2	2
Aug	9	2	0	2
Sep	8	0	1	1
Oct	5	0	0	0
Nov	3	1	1	2
Dec	9	1	2	3
<b>TOTAL</b>	<b>112</b>	<b>13</b>	<b>13</b>	<b>26</b>

Figure 8.3: Potential Donor Referrals and Actual Donations by month, 2008

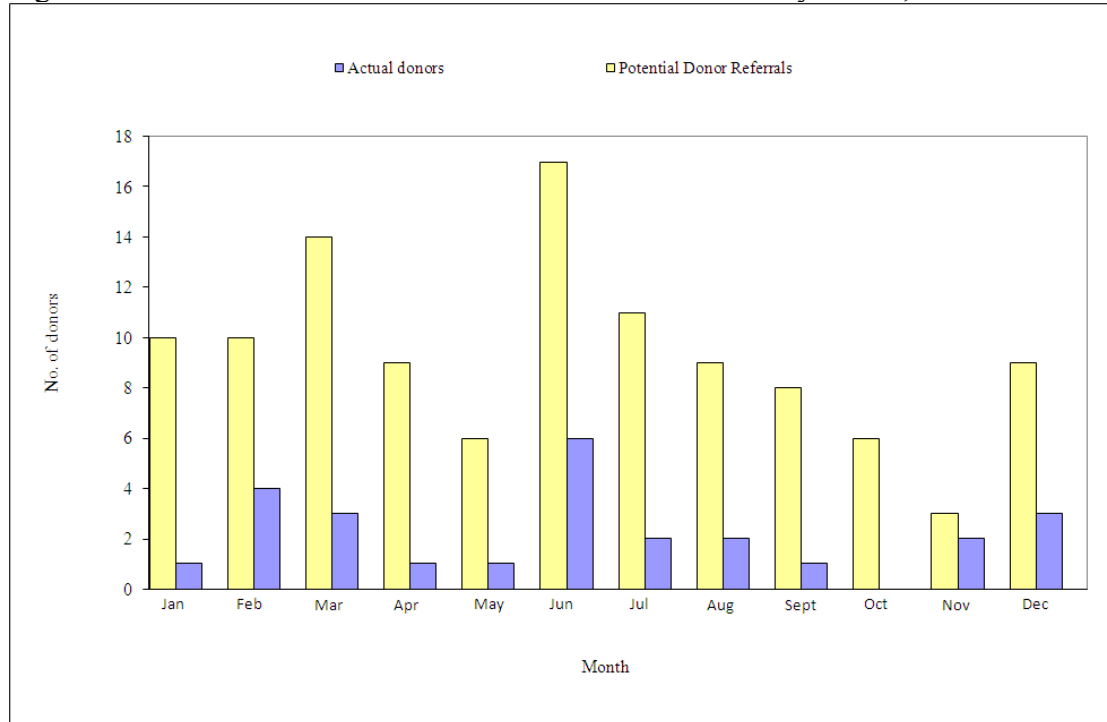


Table 8.4: Distribution of Donors by Age, 1997-2008

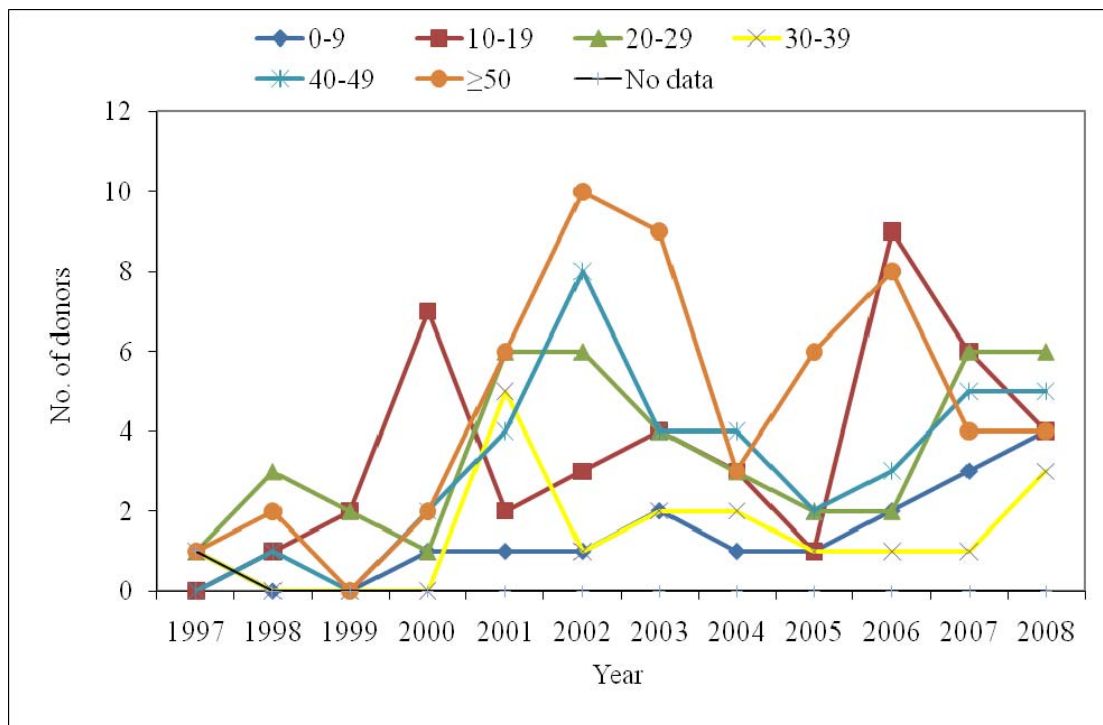
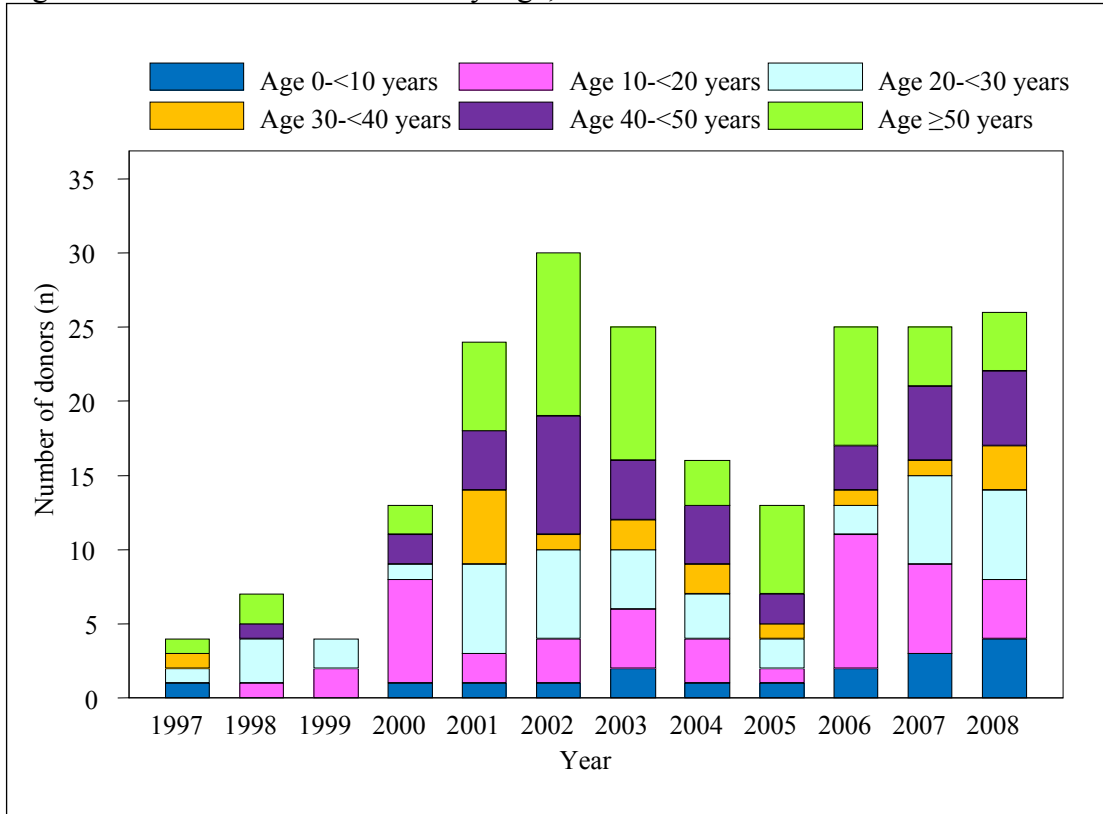
Donor's age (years)	No. (%)													Total N=213
	1997 N=5	1998 N=7	1999 N=4	2000 N=13	2001 N=24	2002 N=30	2003 N=25	2004 N=16	2005 N=13	2006 N=25	2007 N=25	2008 N=26		
<1	0	0	0	0	0	0	1 (4)	0	0	0	0	0	1 (0)	
1-9	1 (20)	0	0	1 (8)	1 (4)	1 (3)	1 (4)	1 (6)	1 (8)	2 (8)	3 (12)	4 (15)	16 (8)	
10-19	0	1 (14)	2 (50)	7 (54)	2 (8)	3 (10)	4 (16)	3 (19)	1 (8)	9 (36)	6 (24)	4 (15)	42 (20)	
20-29	1 (20)	3 (43)	2 (50)	1 (8)	6 (25)	6 (20)	4 (16)	3 (19)	2 (15)	2 (8)	6 (24)	6 (23)	42 (20)	
30-39	1 (20)	0	0	0	5 (21)	1 (3)	2 (8)	2 (13)	1 (8)	1 (4)	1 (4)	3 (12)	17 (8)	
40-49	0	1 (14)	0	2 (15)	4 (17)	8 (27)	4 (16)	4 (25)	2 (15)	3 (12)	5 (20)	5 (19)	38 (18)	
50-59	1 (20)	2 (29)	0	1 (8)	4 (17)	7 (23)	3 (12)	3 (19)	1 (8)	2 (8)	2 (8)	2 (8)	28 (13)	
60-69	0	0	0	1 (8)	2 (8)	1 (3)	3 (12)	0	3 (23)	4 (16)	2 (8)	1 (4)	17 (8)	
70-79	0	0	0	0	0	3 (10)	3 (12)	0	1 (8)	2 (8)	0	1 (4)	10 (5)	
80-89	0	0	0	0	0	0	0	0	1 (8)	0	0	0	1 (0)	
No data	1 (20)	0	0	0	0	0	0	0	0	0	0	0	1 (0)	
<b>Total</b>	<b>5</b>	<b>7</b>	<b>4</b>	<b>13</b>	<b>24</b>	<b>30</b>	<b>25</b>	<b>16</b>	<b>13</b>	<b>25</b>	<b>25</b>	<b>26</b>	<b>213</b>	
Mean	27.25	34.43	20.50	25.23	36.83	41.87	39.36	32.50	46.38	35.72	29.60	30.75	35.09	
SD	21.06	17.12	4.43	18.71	15.71	18.92	22.26	15.57	24.78	23.45	18.75	19.06	19.99	
Median	28.00	25.00	21.00	17.00	37.00	46.00	40.00	31.50	48.00	23.00	23.00	27.00	33.00	
Minimum	2	16	15	5	8	4	<1*	8	3	3	1**	2	<1*	
Maximum	51	57	25	60	66	79	77	55	81***	77	68	71	81***	

\* The youngest tissue donor was 37-days-old donated heart valves in 2003

\*\* The youngest organ donor was 14.5-month old donated kidneys 2007.

\*\*\* The oldest tissue donor was 81-years-old donated eyes in 2005; the oldest organ donor was 65-years-old donated kidneys in 2001.

Figure 8.4: Distribution of Donors by Age, 1997-2008



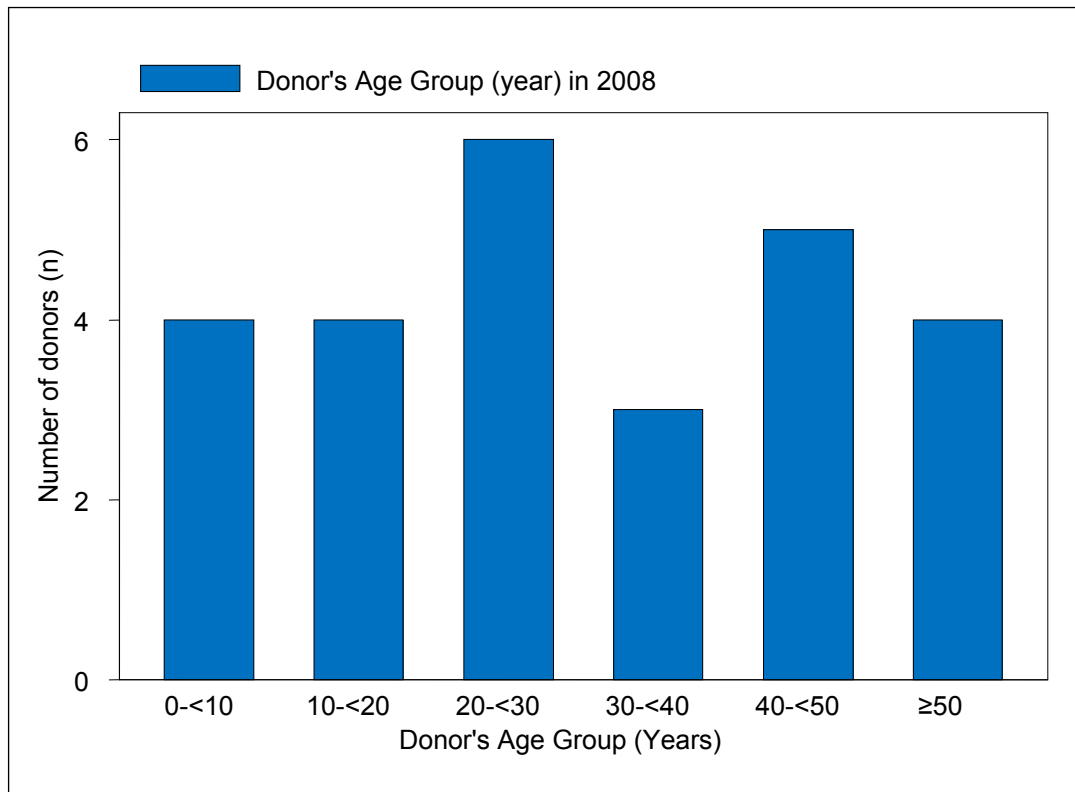
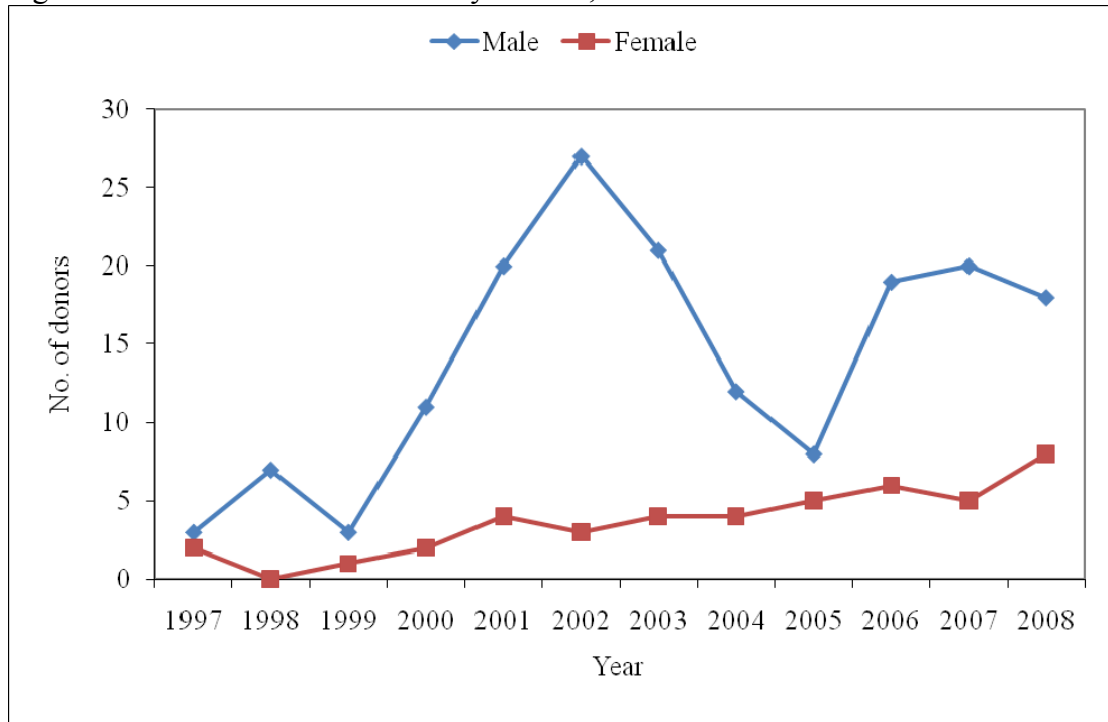


Table 8.5: Distribution of Donors by Gender, 1997-2008

Donor's gender	No. (%)												
	1997 N=5	1998 N=7	1999 N=4	2000 N=13	2001 N=24	2002 N=30	2003 N=25	2004 N=16	2005 N=13	2006 N=25	2007 N=25	2008 N=26	Total N=213
Male	3 (60)	7 (100)	3 (75)	11 (85)	20 (83)	27 (90)	21 (84)	12 (75)	8 (62)	19 (76)	20 (80)	18 (69)	169 (79)
Female	2 (40)	0 (0)	1 (25)	2 (15)	4 (17)	3 (10)	4 (16)	4 (25)	5 (38)	6 (24)	5 (20)	8 (31)	44 (21)

Figure 8.5: Distribution of Donors by Gender, 1997-2008



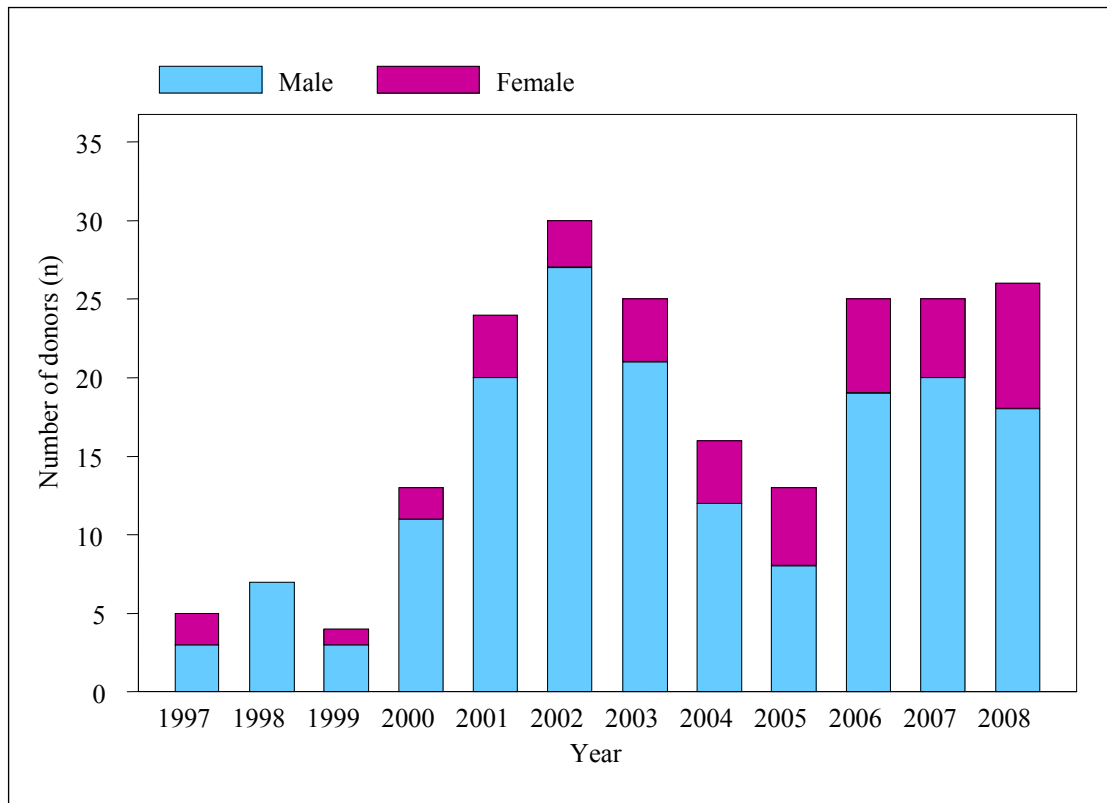
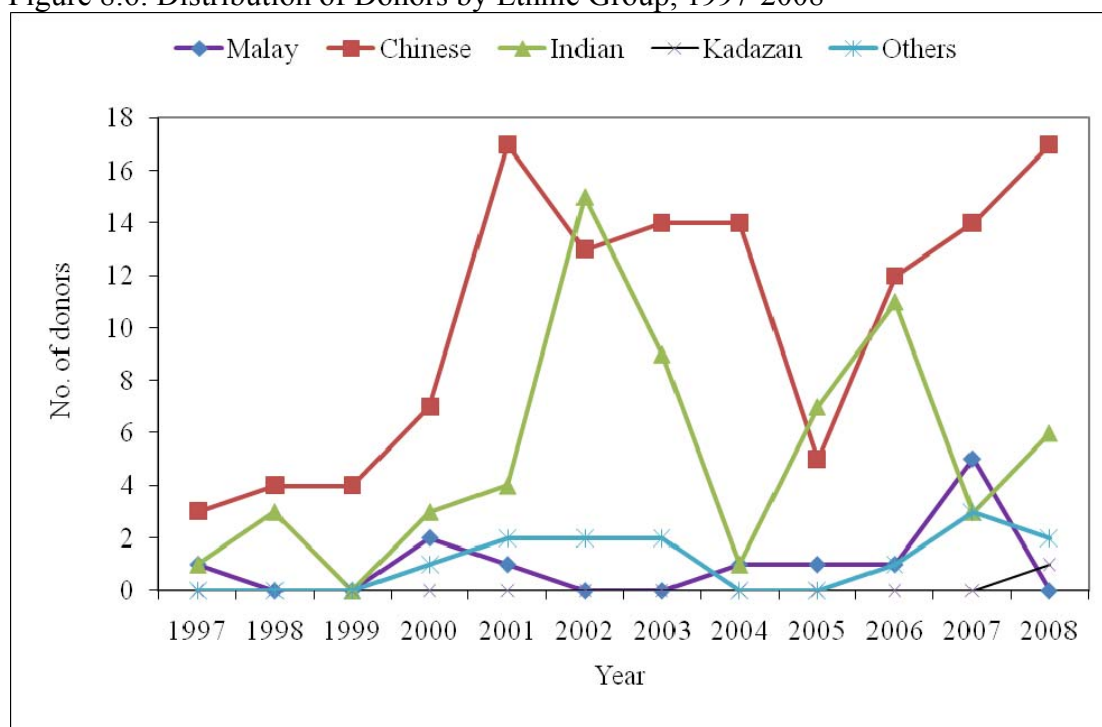


Table 8.6: Distribution of Donors by Ethnic Group, 1997-2008

Donor's ethnic group	No. (%)						
	1997 N=5	1998 N=7	1999 N=4	2000 N=13	2001 N=24	2002 N=30	2003 N=25
Malay	1 (20)	0 (0)	0 (0)	2 (15)	1 (4)	0 (0)	0 (0)
Chinese	3 (60)	4 (57)	4 (100)	7 (54)	17 (71)	13 (43)	14 (56)
Indian	1 (20)	3 (43)	0 (0)	3 (23)	4 (17)	15 (50)	9 (36)
Others	0 (0)	0 (0)	0 (0)	1 (8)	2 (8)	2 (7)	2 (8)

Donor's ethnic group	No. (%)					
	2004 N=16	2005 N=13	2006 N=25	2007 N=25	2008 N=28	Total N=213
Malay	1 (6)	1 (8)	1 (4)	5 (20)	0 (0)	12 (6)
Chinese	14 (88)	5 (38)	12 (48)	14 (56)	17 (65)	124 (58)
Indian	1 (6)	7 (54)	11 (44)	3 (12)	6 (23)	63 (30)
Others	0 (0)	0 (0)	1 (4)	3 (12)	3 (12)	14 (7)

Figure 8.6: Distribution of Donors by Ethnic Group, 1997-2008



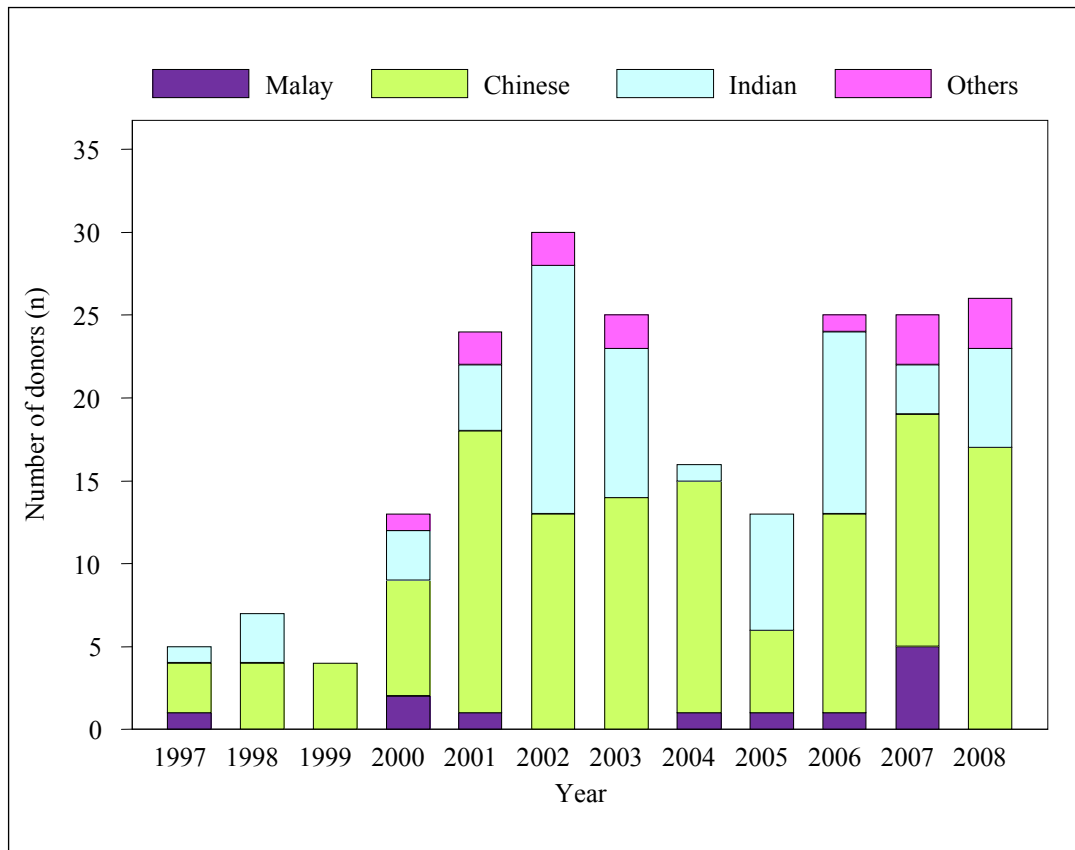
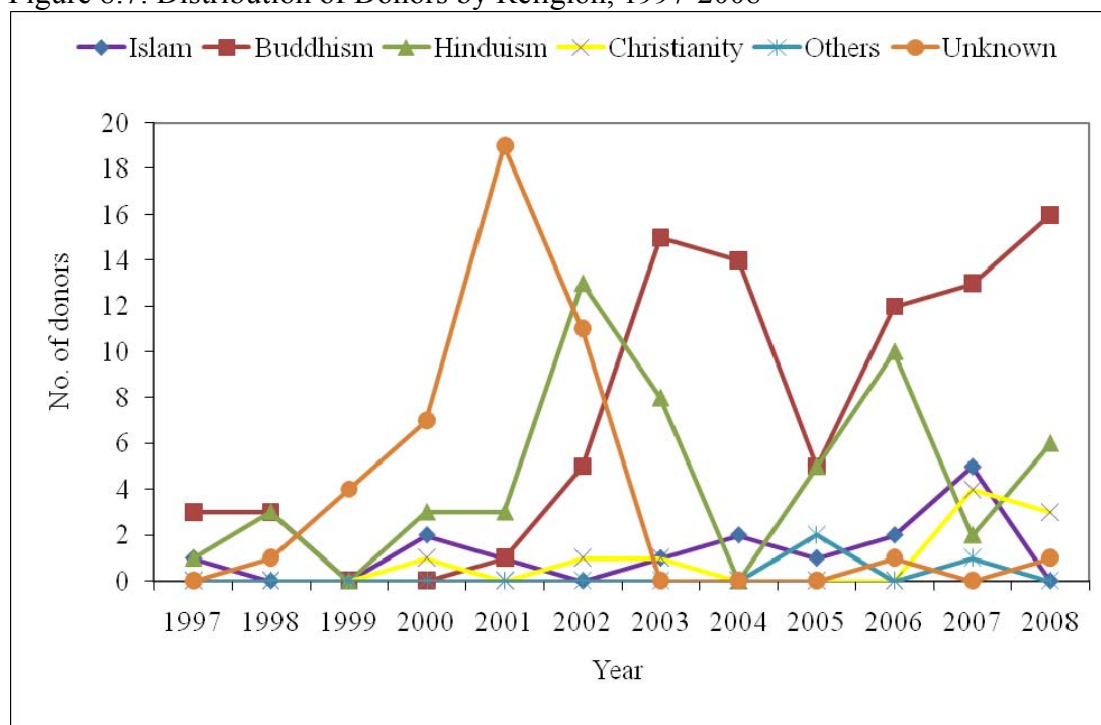


Table 8.7: Distribution of Donors by Religion, 1997-2008

Donor's religion	No. (%)						
	1997 N=5	1998 N=7	1999 N=4	2000 N=13	2001 N=24	2002 N=30	2003 N=25
Islam	1 (20)	0 (0)	0 (0)	2 (15)	1 (4)	0 (0)	1 (4)
Buddhism	3 (60)	3 (43)	0 (0)	0 (0)	1 (4)	5 (17)	15 (60)
Hinduism	1 (20)	3 (43)	0 (0)	3 (23)	3 (13)	13 (43)	8 (32)
Christianity	0 (0)	0 (0)	0 (0)	1 (8)	0 (0)	1 (3)	1 (4)
Others	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Unknown	0 (0)	1 (14)	4 (100)	7 (54)	19 (79)	11 (37)	0 (0)

Donor's religion	No. (%)					
	2004 N=16	2005 N=13	2006 N=25	2007 N=25	2008 N=26	Total N=213
Islam	2 (13)	1 (8)	2 (8)	5 (20)	0 (0)	15 (7)
Buddhism	14 (88)	5 (38)	12 (48)	13 (52)	16 (62)	87 (41)
Hinduism	0 (0)	5 (38)	10 (40)	2 (8)	6 (23)	54 (25)
Christianity	0 (0)	0 (0)	0 (0)	4 (16)	3 (12)	10 (5)
Others	0 (0)	2 (15)	0 (0)	1 (4)	0 (0)	3 (1)
Unknown	0 (0)	0 (0)	1 (4)	0 (0)	1 (4)	44 (21)

Figure 8.7: Distribution of Donors by Religion, 1997-2008



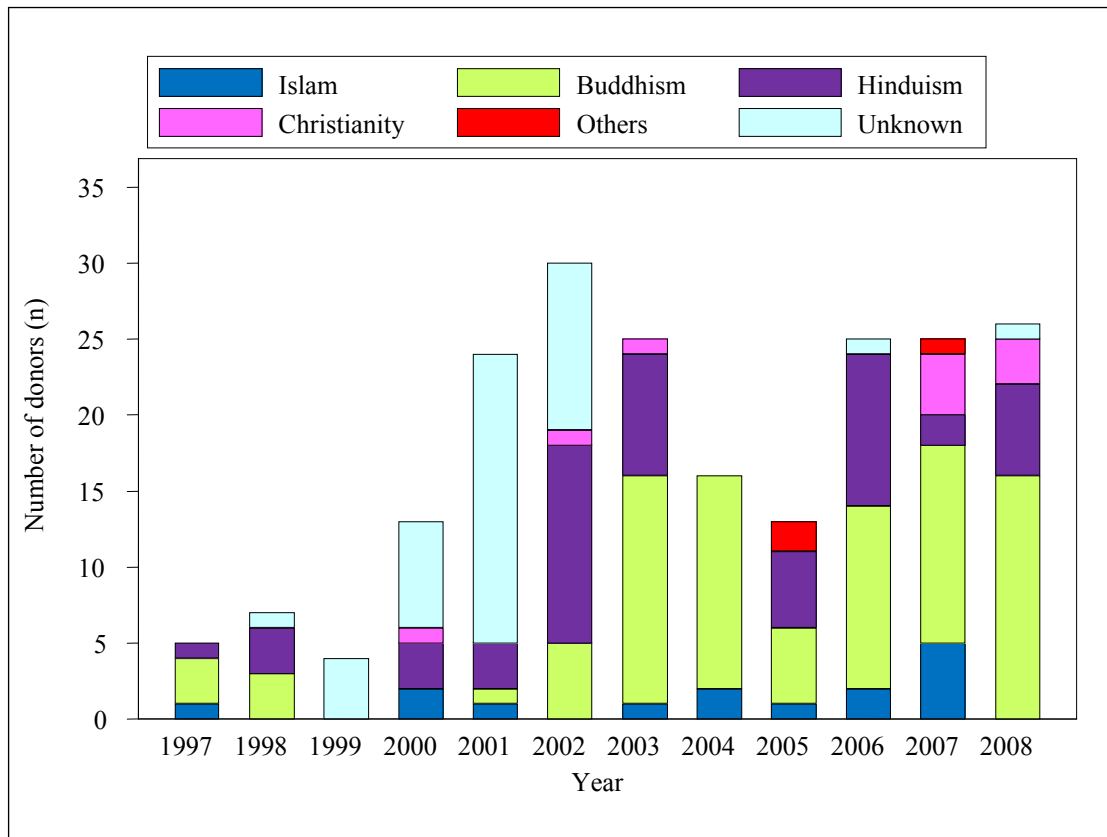
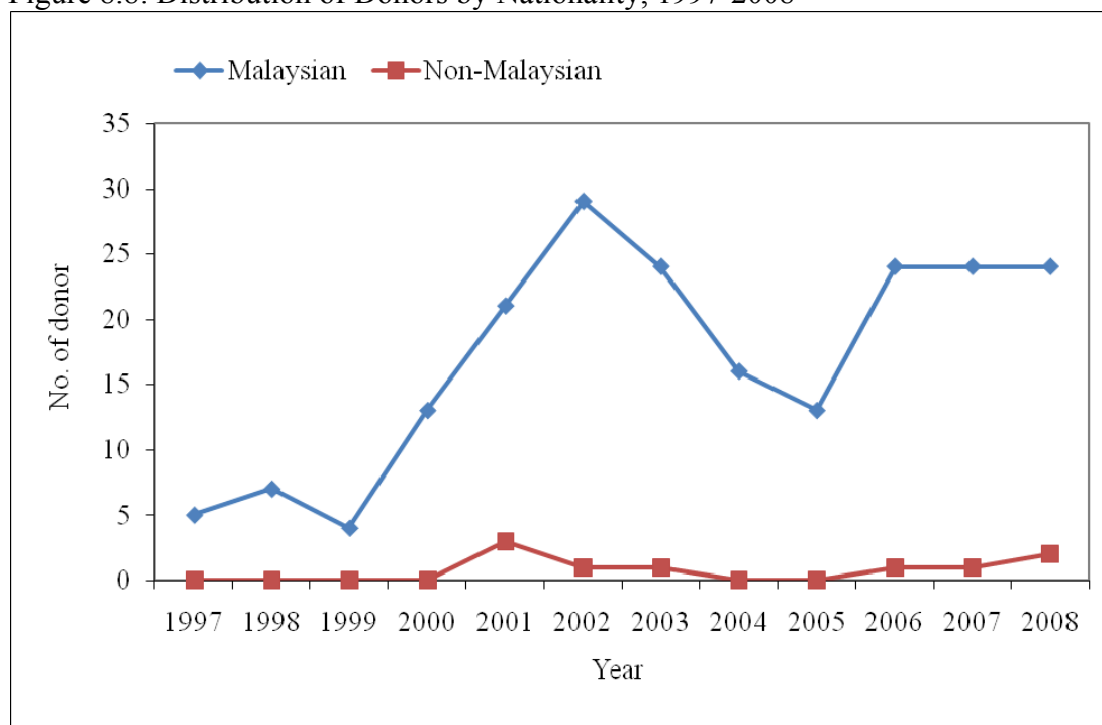


Table 8.8: Distribution of Donors by Nationality, 1997-2008

Donor's nationality	No. (%)												
	1997 N=5	1998 N=7	1999 N=4	2000 N=13	2001 N=24	2002 N=30	2003 N=25	2004 N=16	2005 N=13	2006 N=25	2007 N=25	2008 N=26	Total N=213
Malaysian	5 (100)	7 (100)	4 (100)	13 (100)	21 (88)	29 (97)	24 (96)	16 (100)	13 (100)	24 (96)	24 (96)	24 (92)	204 (96)
Non-Malaysian	0 (0)	0 (0)	0 (0)	0 (0)	3 (13)	1 (3)	1 (4)	0 (0)	0 (0)	1 (4)	1 (4)	2 (8)	9 (4)

Figure 8.8: Distribution of Donors by Nationality, 1997-2008



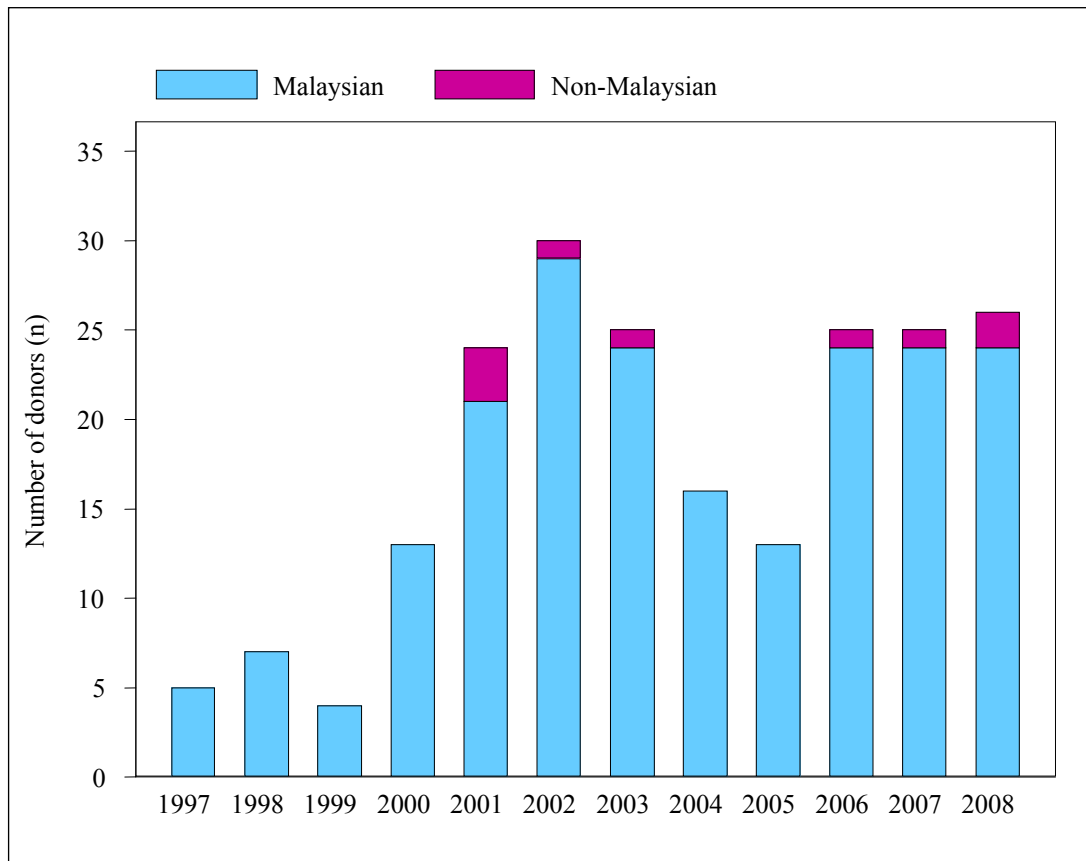


Table 8.9: Distribution of Donors by State, 1997-2008

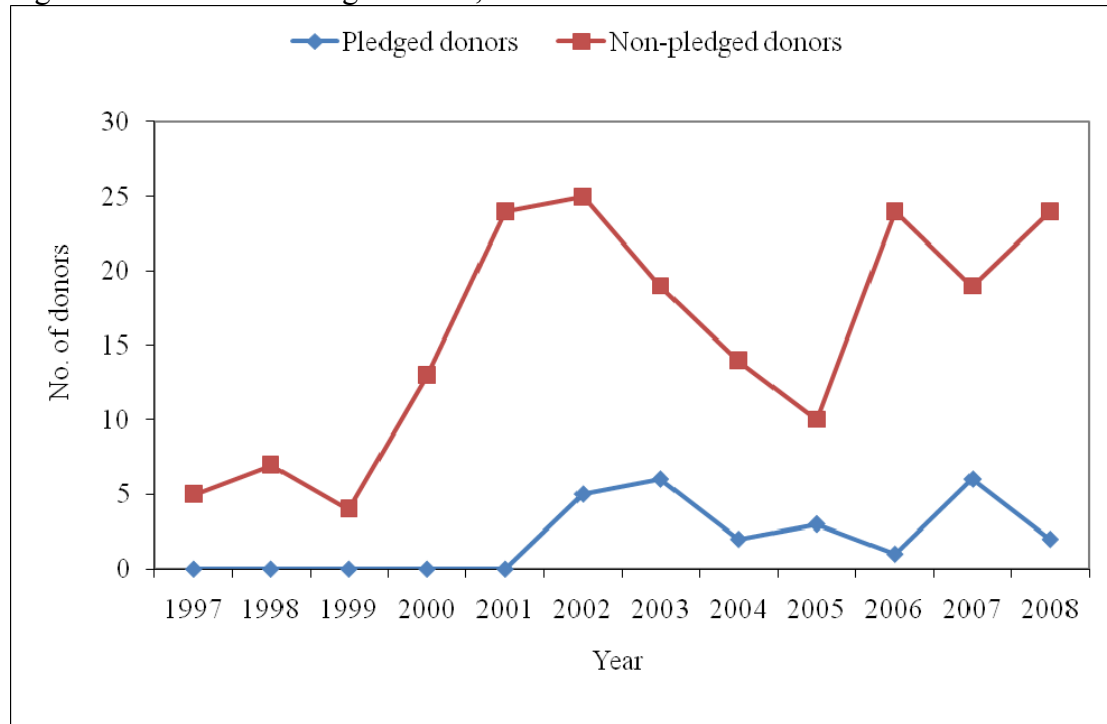
Donor's state of residence*	No. (%)						
	1997 N=5	1998 N=7	1999 N=4	2000 N=13	2001 N=24	2002 N=30	2003 N=25
Johor	0	0	0	3 (23)	0	2 (7)	3 (12)
Malacca	0	1 (14)	1 (25)	0	0	1 (3)	2 (8)
Negeri Sembilan	0	1 (14)	0	1 (8)	0	1 (3)	4 (16)
Selangor	2 (40)	1 (14)	0	0	3 (13)	9 (30)	6 (24)
WP Kuala Lumpur	1 (20)	1 (14)	2 (50)	0	0	5 (17)	2 (8)
WP Putrajaya	0	0	0	0	0	1 (3)	0
Perak	1 (20)	2 (29)	1 (25)	3 (23)	0	4 (13)	0
Kedah	0	0	0	2 (15)	3 (13)	1 (3)	0
Perlis	0	0	0	0	0	0	0
Pulau Pinang	0	0	0	1 (8)	3 (13)	1 (3)	3 (12)
Pahang	0	1 (14)	0	0	3 (13)	2 (7)	2 (8)
Terengganu	0	0	0	0	1 (4)	0	0
Kelantan	0	0	0	1 (8)	0	0	0
Sabah	0	0	0	2 (15)	1 (4)	0	1 (4)
Sarawak	0	0	0	0	0	0	0
Others**	0	0	0	0	0	0	1 (4)
Unknown	1 (20)	0	0	0	10 (42)	3 (10)	1 (4)

Donor's state of residence*	No. (%)					
	2004 N=16	2005 N=13	2006 N=25	2007 N=25	2008 N=26	Total N=213
Johor	1 (6)	1 (8)	1 (4)	5 (20)	3 (12)	19 (9)
Malacca	0	1 (8)	2 (8)	1 (4)	0	9 (4)
Negeri Sembilan	0	1 (8)	2 (8)	1 (4)	2 (8)	13 (6)
Selangor	6 (38)	7 (54)	2 (8)	6 (24)	3 (12)	45 (21)
WP Kuala Lumpur	3 (19)	2 (15)	6 (24)	3 (12)	8 (31)	33 (15)
WP Putrajaya	0	0	0	0	0	1 (0)
Perak	2 (13)	1 (8)	4 (16)	2 (8)	3 (12)	23 (11)
Kedah	1 (6)	0	1 (4)	2 (8)	1 (4)	11 (5)
Perlis	0	0	0	0	0	0
Pulau Pinang	2 (13)	0	4 (16)	2 (8)	2 (8)	18 (8)
Pahang	0	0	1 (4)	1 (4)	2 (8)	12 (6)
Terengganu	0	0	0	1 (4)	0	2 (1)
Kelantan	0	0	1 (4)	0	0	2 (1)
Sabah	1 (6)	0	0	0	2 (8)	7 (3)
Sarawak	0	0	0	0	0	0
Others**	0	0	1 (4)	1 (4)	0	3 (1)
Unknown	0	0	0	0	0	15 (7)

Table 8.10: Donor’s Pledged Status, 1997-2008

Donor’s pledged status	No. (%)												
	1997 N=5	1998 N=7	1999 N=4	2000 N=13	2001 N=24	2002 N=30	2003 N=25	2004 N=16	2005 N=13	2006 N=25	2007 N=25	2008 N=26	Total N=213
Pledged donors	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	5 (17)	6 (24)	2 (13)	3 (23)	1 (4)	6 (24)	2 (8)	25 (12)
Non-pledged donors	5 (100)	7 (100)	4 (100)	13 (100)	24 (100)	25 (83)	19 (76)	14 (88)	10 (77)	24 (96)	19 (76)	24 (92)	188 (88)

Figure 8.10: Donor’s Pledged Status, 1997-2008



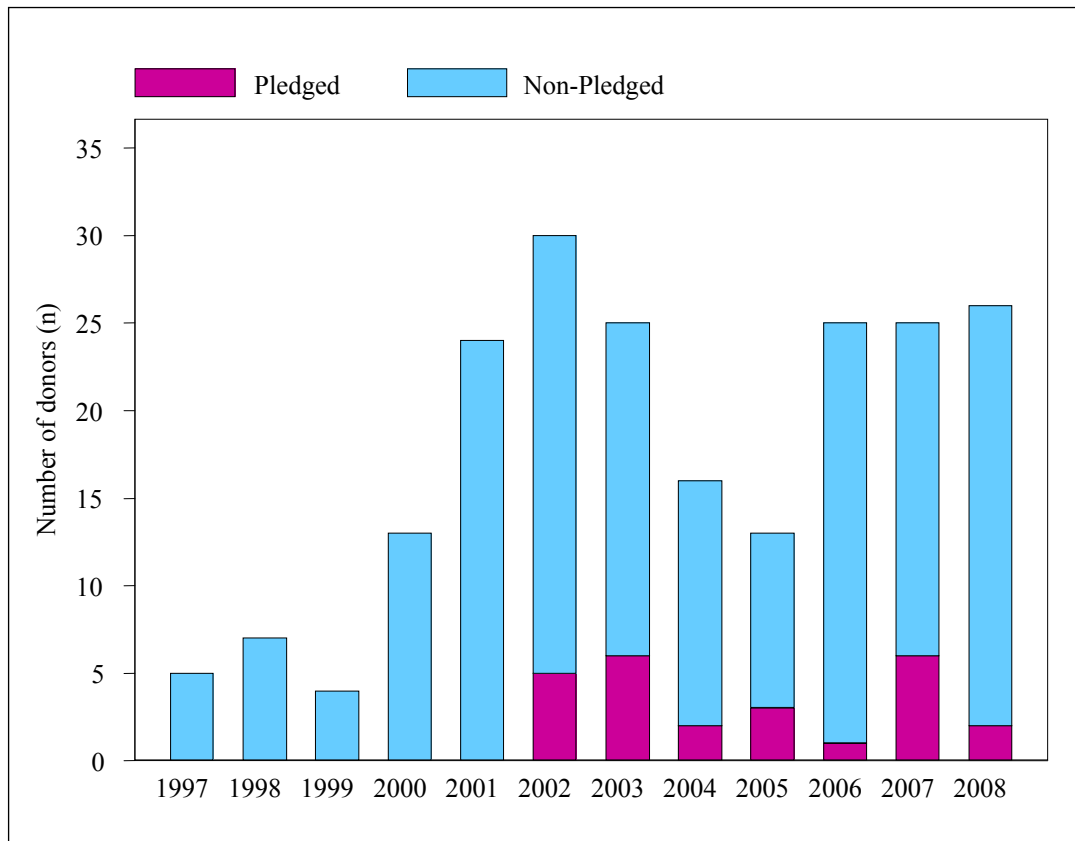


Table 8.11: Distribution of Donors by Type, 1997-2008

Type of donors	No. (%)												Total N=213
	1997 N=5	1998 N=7	1999 N=4	2000 N=13	2001 N=24	2002 N=30	2003 N=25	2004 N=16	2005 N=13	2006 N=25	2007 N=25	2008 N=26	
BD (Brain Death donor)	4 (80)	6 (86)	4 (100)	11 (85)	20 (83)	17 (57)	8 (32)	10 (63)	5 (38)	14 (56)	15 (60)	13 (50)	127 (60)
CD (tissue donors after Cardiac Death)*	1 (20)	1 (14)	0 (0)	2 (15)	4 (17)	13 (43)	17 (68)	6 (38)	8 (62)	11 (44)	10 (40)	13 (50)	86 (40)

\*CD involve tissue donations only.

Figure 8.11: Distribution of Donors by Type, 1997-2008

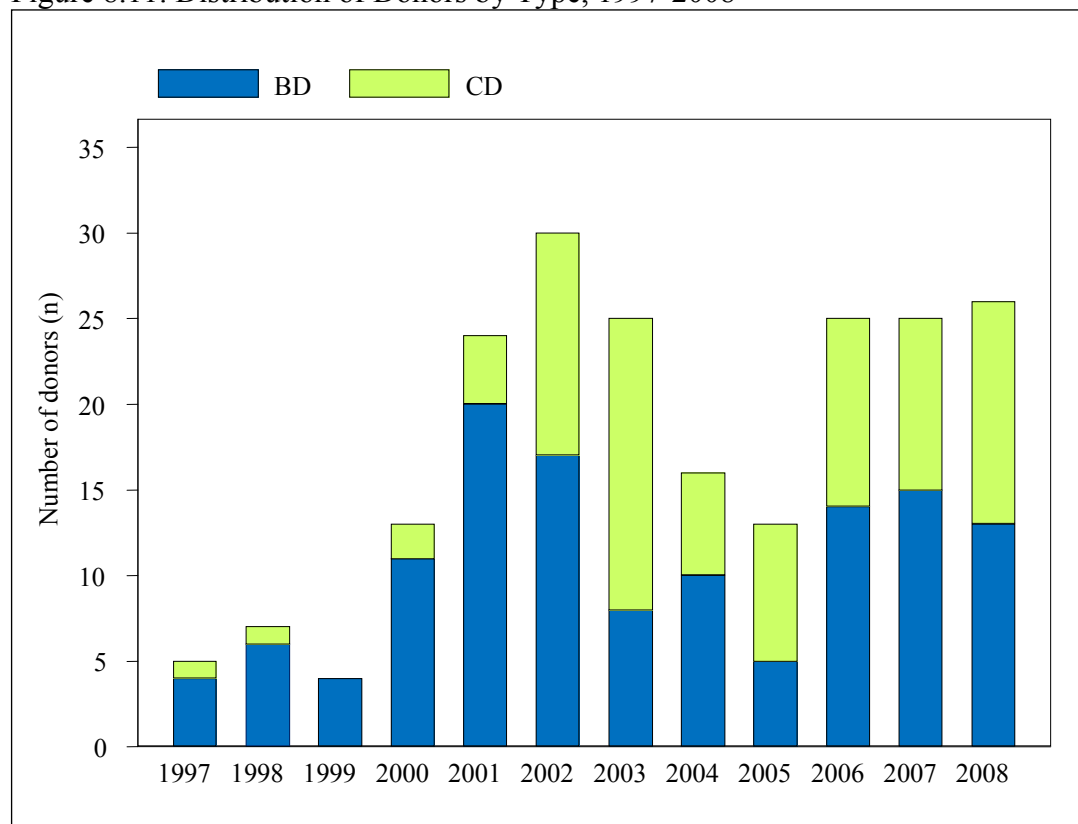


Table 8.12: Distribution of Donors by Cause of Death, 1997-2008

Causes of death	No. (%)											
	1997 N=5		1998 N=7		1999 N=4		2000 N=13		2001 N=24		2002 N=30	
	Brain dead donors N=4	Cardiac death tissue donors N=1	Brain dead donors N=6	Cardiac death tissue donors N=1	Brain dead donors N=4	Cardiac death tissue donors N=0	Brain dead donors N=11	Cardiac death tissue donors N=2	Brain dead donors N=20	Cardiac death tissue donors N=4	Brain dead donors N=17	Cardiac death tissue donors N=13
Injury from MVA	1 (25)	0	5 (83)	0	3 (75)	0	5 (45)	2 (100)	11 (55)	0	10 (59)	7 (54)
Injury from fall	0	0	0	0	0	0	0	0	1 (5)	0	0	0
Injury from assault	0	0	1 (17)	0	0	0	0	0	1 (5)	0	0	0
Injury from industrial accident	0	0	0	0	0	0	0	0	0	0	1 (6)	0
Spontaneous hypertensive intracranial bleed	2 (50)	0	0	0	0	0	2 (18)	0	3 (15)	1 (25)	1 (6)	0
Spontaneous AVM/Aneurysm intracranial bleed	0	0	0	0	0	0	1 (9)	0	1 (5)	0	2 (12)	0
Brain anoxia	0	0	0	0	0	0	0	0	0	0	1 (6)	0
Brain tumour	1 (25)	0	0	0	0	0	1 (9)	0	0	0	0	0
Thrombo embolic brain infarct	0	0	0	1 (100)	0	0	1 (9)	0	0	1 (25)	1 (6)	0
Cardiac disease	0	0	0	0	0	0	0	0	0	0	0	5 (38)
Others	0	0	0	0	0	0	0	0	1 (5)	1 (25)	0	1 (8)
Unknown	0	1 (100)	0	0	1 (25)	0	1 (9)	0	2 (10)	1 (25)	1 (6)	0

Causes of death	No. (%)													
	2003 N=25		2004 N=16		2005 N=13		2006 N=25		2007 N=25		2008 N=26		Total N=213	
	Brain dead donors N=8	Cardiac death tissue donors N=17	Brain dead donors N=10	Cardiac death tissue donors N=6	Brain dead donors N=8	Cardiac death tissue donors N=17	Brain dead donors N=10	Cardiac death tissue donors N=6	Brain dead donors N=15	Cardiac death tissue donors N=10	Brain dead donors N=13	Cardiac death tissue donors N=13	Brain dead donors N=127	Cardiac death tissue donors N=86
Injury from MVA	6 (75)	3 (18)	2 (20)	3 (50)	1 (20)	2 (25)	7 (50)	1 (9)	9 (60)	4 (40)	3 (23)	2 (15)	63 (50)	24 (28)
Injury from fall	1 (13)	0	2 (20)	0	0	0	1 (7)	1 (9)	1 (7)	2 (20)	1 (8)	1 (8)	7 (6)	4 (5)
Injury from assault	0	0	1 (10)	1 (17)	1 (20)	0	1 (7)	1 (9)	1 (7)	0	0	2 (15)	6 (5)	4 (5)
Injury from industrial accident	0	0	0	0	0	0	0	0	0	0	1 (8)	0	2 (2)	0
Spontaneous hypertensive intracranial bleed	0	1 (6)	1 (10)	2 (33)	1 (20)	0	1 (7)	0	1 (7)	0	1 (8)	0	13 (10)	4 (5)
Spontaneous VM/ Aneurysm intracranial bleed	0	1 (6)	3 (30)	0	0	0	0	0	2 (13)	0	1 (8)	1 (8)	10 (8)	2 (2)
Brain anoxia	0	1 (6)	0	0	0	0	0	0	0	0	0	0	1 (1)	1 (1)
Brain tumour	0	0	0	0	0	0	2 (14)	0	0	0	2 (15)	0	6 (5)	0
Thrombo embolic brain infarct	1 (13)	0	0	0	1 (20)	0	0	2 (18)	0	0	0	0	4 (3)	4 (5)
Cardiac disease	0	7 (41)	1 (10)	0	1 (20)	3 (38)	2 (14)	5 (45)	0	4 (40)	3 (23)	7 (54)	7 (6)	31 (36)
Others	0	4 (24)	0	0	0	3 (38)	0	0	1 (7)	0	0	0	2 (2)	9 (10)
Unknown	0	0	0	0	0	0	0	1 (9)	0	0	1 (8)	0	6 (5)	3 (3)

Table 8.13: Distribution of Organ Donors by Blood Group, 1997-2008

Blood group	No. (%)						
	1997 N=4	1998 N=6	1999 N=4	2000 N=11	2001 N=20	2002 N=15	2003 N=7
A positive	1 (25)	2 (33)	0 (0)	1 (9)	5 (25)	4 (27)	4 (57)
B positive	0 (0)	1 (17)	1 (25)	5 (45)	4 (20)	4 (27)	2 (29)
AB positive	1 (25)	1 (17)	0 (0)	0 (0)	1 (5)	0 (0)	0 (0)
O positive	2 (50)	2 (33)	3 (75)	5 (45)	10 (50)	7 (47)	1 (14)
A negative	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

Blood group	No. (%)					
	2004 N=10	2005 N=5	2006 N=14	2007 N=15	2008 N=13	Total N=124
A positive	2 (20)	1 (20)	4 (29)	6 (40)	4 (31)	34 (27)
B positive	4 (40)	2 (40)	5 (36)	3 (20)	2 (15)	33 (27)
AB positive	0 (0)	0 (0)	2 (14)	0 (0)	0 (0)	5 (4)
O positive	4 (40)	2 (40)	3 (21)	5 (33)	6 (46)	50 (40)
A negative	0 (0)	0 (0)	0 (0)	1 (7)	1 (8)	2 (2)

Blood group is only ascertained in brain dead donors and is not done for tissue donors post -cardiac deaths

Figure 8.13a: Distribution of Organ Donors by Blood Group, 1997-2008

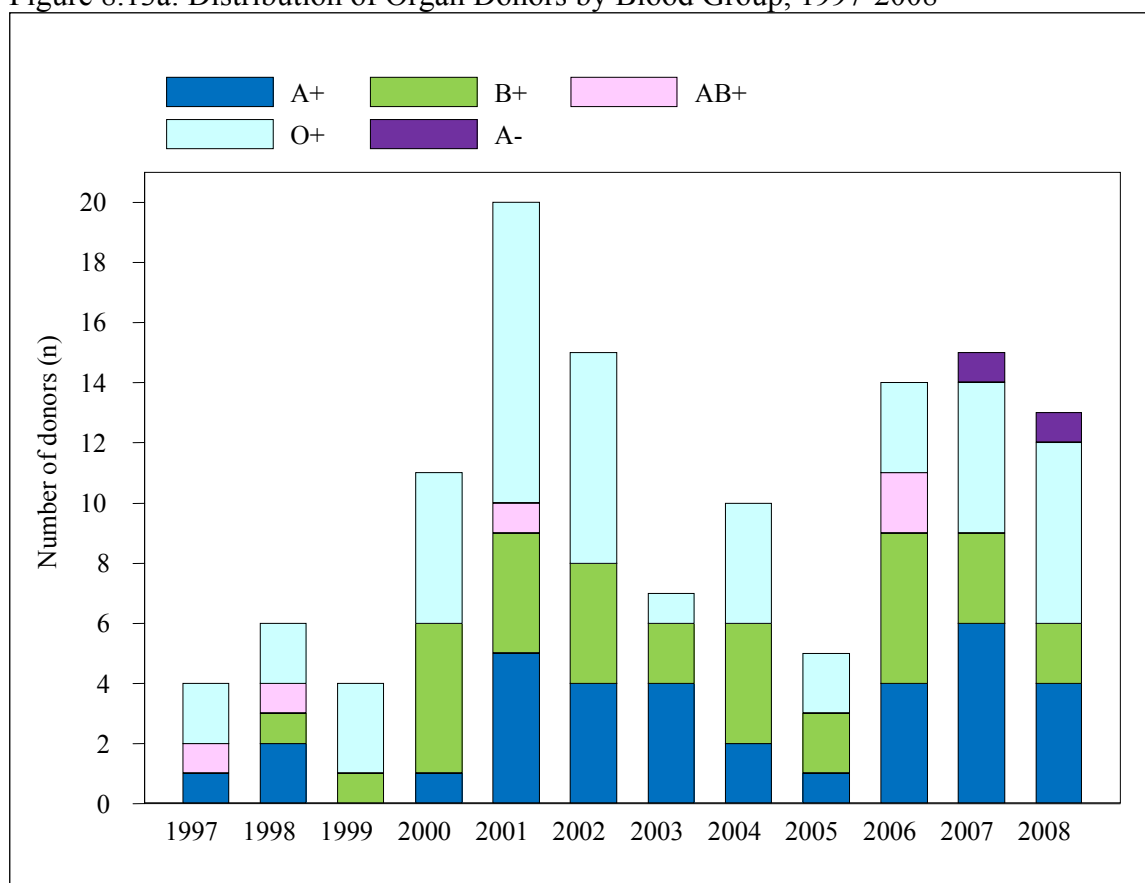


Figure 8.13b: Distribution of Organ Donor by Blood Group Type (pie chart), 1997-2008

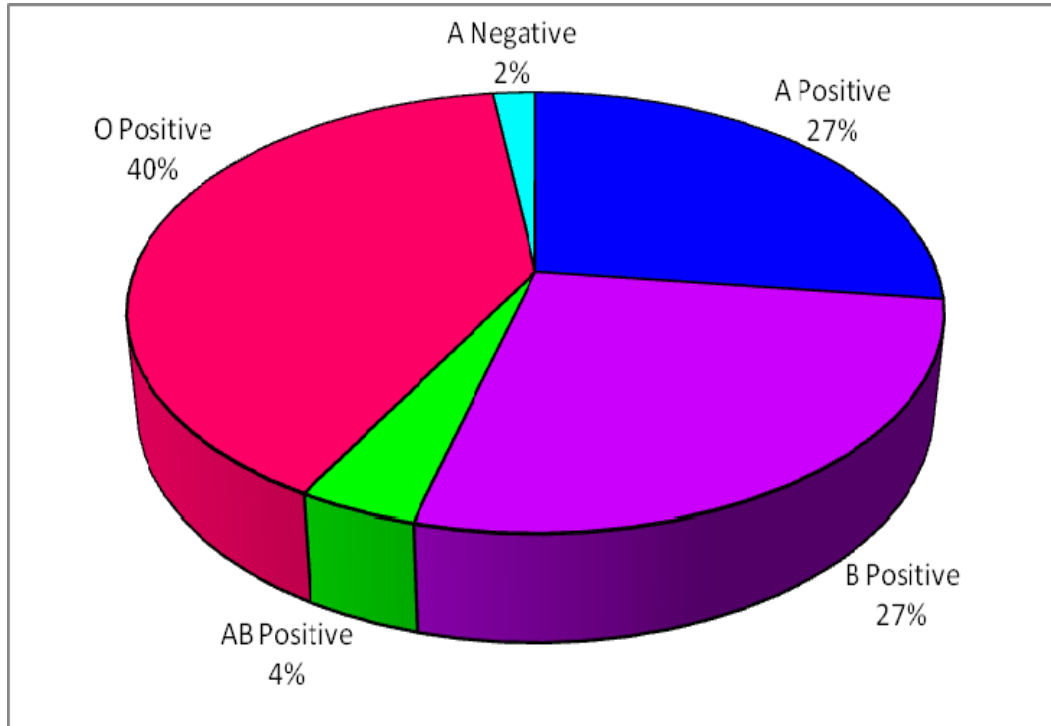


Figure 8.13c: Distribution of Organ Donor by Blood Group Type (pie chart), 2008

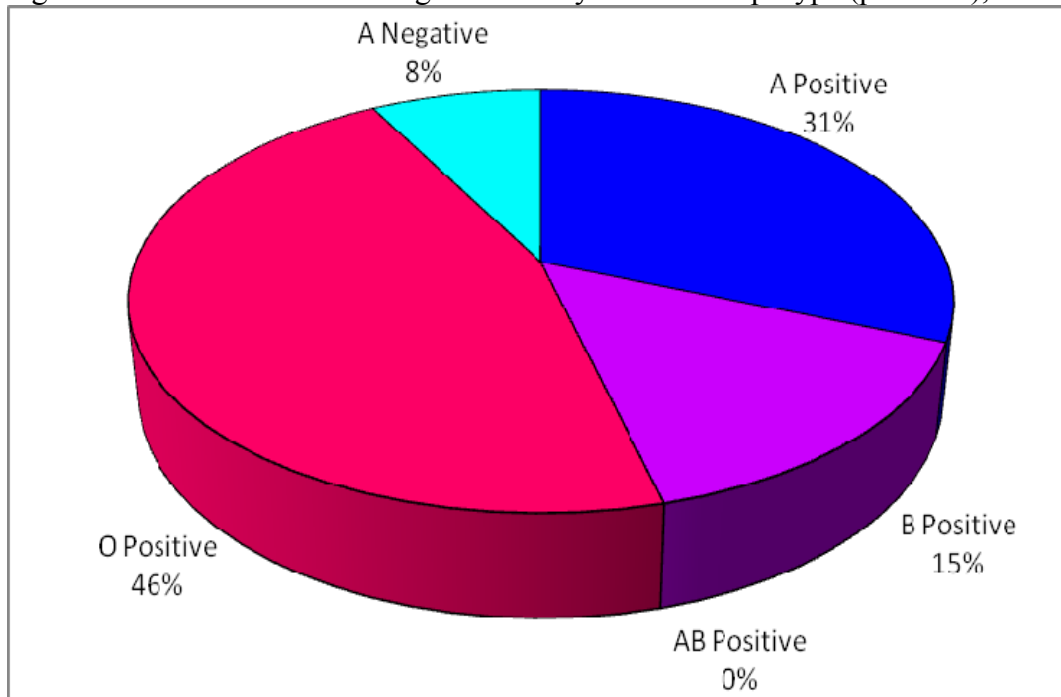


Table 8.14a: Distribution of Donors by Institution of Origin, 1997-2008

Donors' Institution of Origin	No. (%)						
	1997 N=5	1998 N=7	1999 N=4	2000 N=13	2001 N=24	2002 N=30	2003 N=25
MOH state/general hospitals	2 (40)	5 (71)	1 (25)	10 (77)	16 (67)	19 (63)	15 (60)
MOH district hospitals	0 (0)	0 (0)	0 (0)	2 (15)	0 (0)	3 (10)	4 (16)
University hospitals	1 (20)	1 (14)	0 (0)	0 (0)	6 (25)	3 (10)	3 (12)
Private hospitals	1 (20)	1 (14)	3 (75)	1 (8)	2 (8)	4 (13)	3 (12)
Home	1 (20)	0 (0)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)

Donors' Institution of Origin	No. (%)					
	2004 N=16	2005 N=13	2006 N=25	2007 N=25	2008 N=26	Total N=213
MOH state/general hospitals	12 (75)	8 (62)	20 (80)	18 (72)	15 (58)	141 (66)
MOH district hospitals	2 (13)	0 (0)	0 (0)	3 (12)	0 (0)	14 (7)
University hospitals	1 (6)	1 (8)	3 (12)	2 (8)	3 (12)	24 (11)
Private hospitals	1 (6)	4 (31)	2 (8)	2 (8)	6 (23)	30 (14)
Home	0 (0)	0 (0)	0 (0)	0 (0)	2 (8)	4 (2)

Figure 8.14a: Distribution of Donors by Institution of Origin, 1997-2008

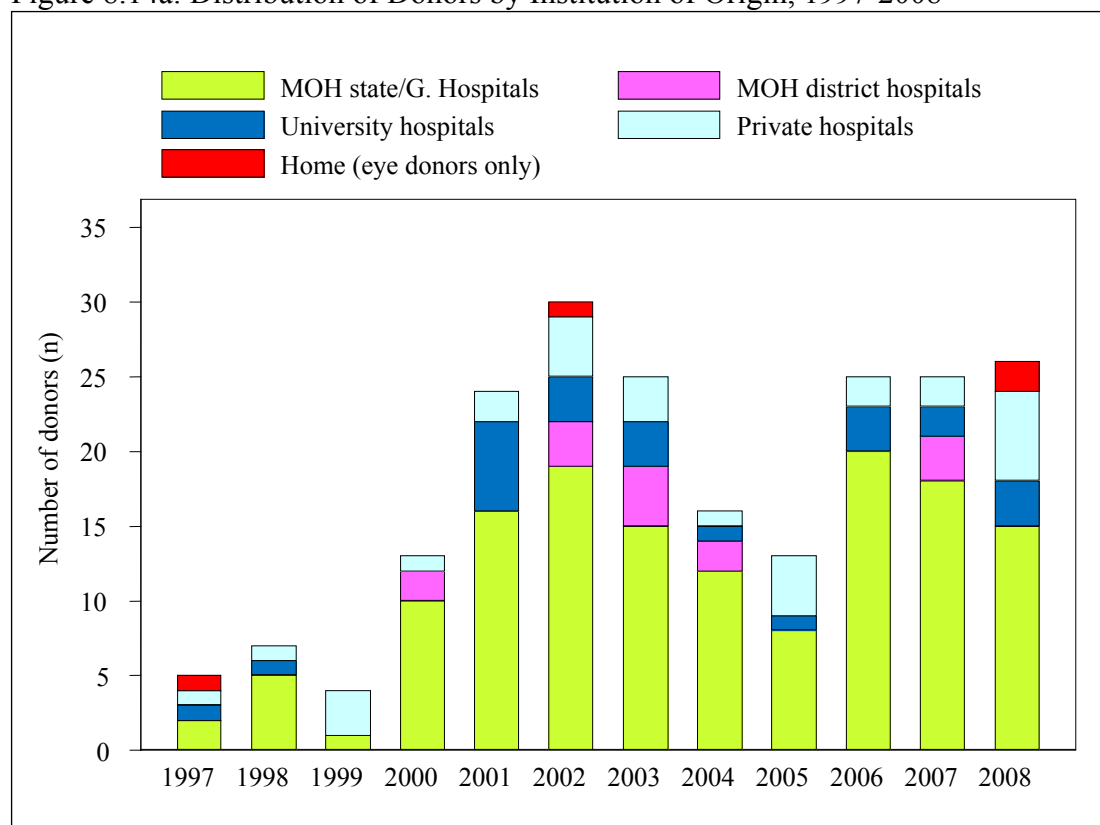


Table 8.14b: Distribution of Donors by Referral Site, 1997-2008

Donor Referral Site	No. (%)						
	1997 N=5	1998 N=7	1999 N=4	2000 N=13	2001 N=24	2002 N=30	2003 N=25
ICU	1 (20)	0 (0)	0 (0)	1 (8)	14 (58)	16 (53)	13 (52)
Ward	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (3)	3 (12)
Emergency department	0 (0)	0 (0)	0 (0)	0 (0)	3 (13)	4 (13)	1 (4)
Mortuary	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	3 (10)	6 (24)
Home	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)
Data not available	4 (80)	7 (100)	4 (100)	12 (92)	7 (29)	5 (17)	2 (8)

Donor Referral Site	No. (%)					
	2004 N=16	2005 N=13	2006 N=25	2007 N=25	2008 N=26	Total N=213
ICU	12 (75)	8 (62)	16 (64)	17 (68)	17 (65)	115 (54)
Ward	1 (6)	3 (23)	3 (12)	1 (4)	3 (12)	15 (7)
Emergency department	0 (0)	0 (0)	3 (12)	1 (4)	1 (4)	13 (6)
Mortuary	3 (19)	1 (8)	3 (12)	5 (20)	4 (15)	25 (12)
Home	0 (0)	0 (0)	0 (0)	0 (0)	1 (4)	2 (1)
Data not available	0 (0)	1 (8)	0 (0)	1 (4)	0 (0)	43 (20)

Figure 8.14b: Distribution of Donors by Referral Site, 1997-2008

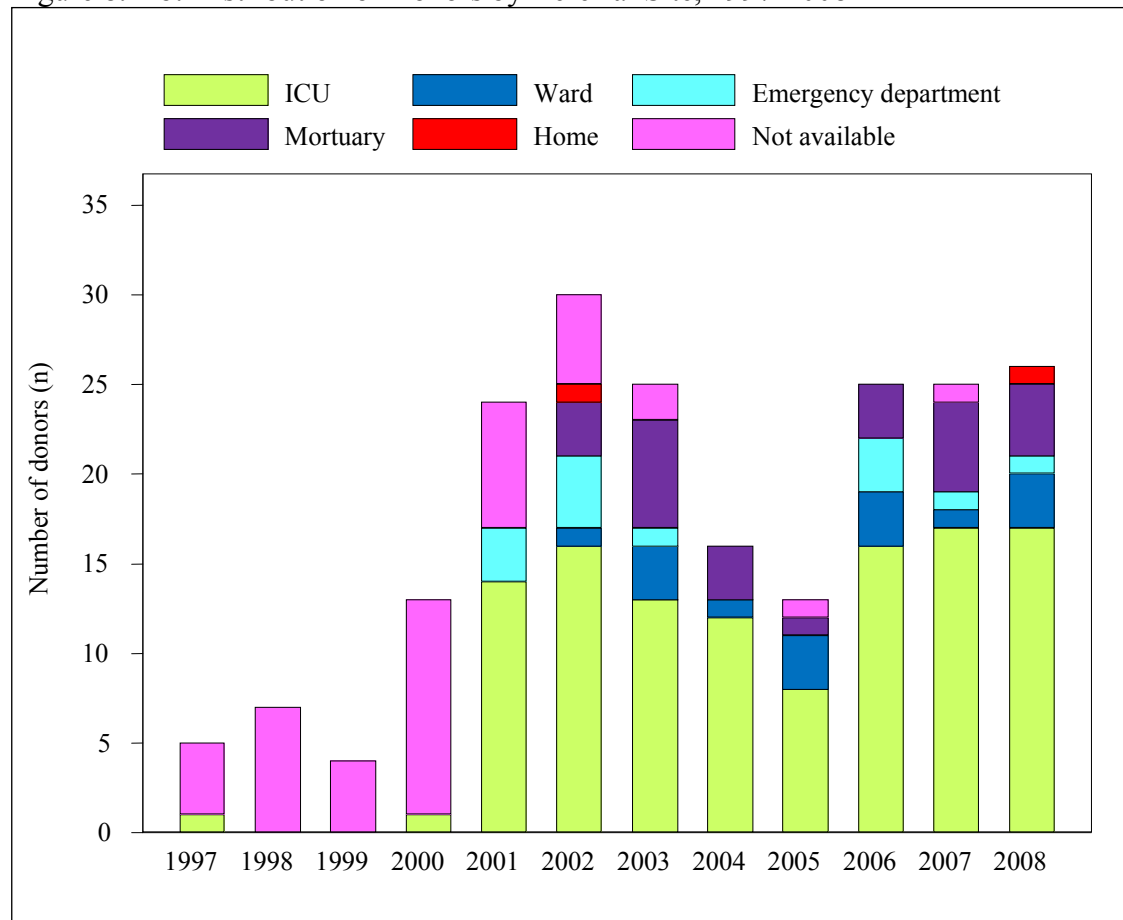


Table 8.14c: Distribution of Donors by Procurement Site, 1997-2008

Donor Procurement Site	No. (%)						
	1997 N=5	1998 N=7	1999 N=4	2000 N=13	2001 N=24	2002 N=30	2003 N=25
Operation theatre	4 (80)	6 (86)	4 (100)	11 (85)	20 (83)	14 (47)	8 (32)
Mortuary	0 (0)	1 (14)	0 (0)	2 (15)	3 (13)	14 (47)	14 (56)
Ward	0 (0)	0 (0)	0 (0)	0 (0)	1 (4)	1 (3)	3 (12)
Home	1 (20)	0 (0)	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)
Data not available	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

Donor Procurement Site	No. (%)					
	2004 N=16	2005 N=13	2006 N=25	2007 N=25	2008 N=26	Total N=213
Operation theatre	9 (56)	5 (38)	14 (56)	16 (64)	13 (50)	124 (58)
Mortuary	7 (44)	5 (38)	10 (40)	7 (28)	12 (46)	75 (35)
Ward	0 (0)	2 (15)	1 (4)	2 (8)	0 (0)	10 (5)
Home	0 (0)	0 (0)	0 (0)	0 (0)	1 (4)	3 (1)
Data not available	0 (0)	1 (8)	0 (0)	0 (0)	0 (0)	1 (0)

Figure 8.14c: Distribution of Donors by Procurement Site, 1997-2008

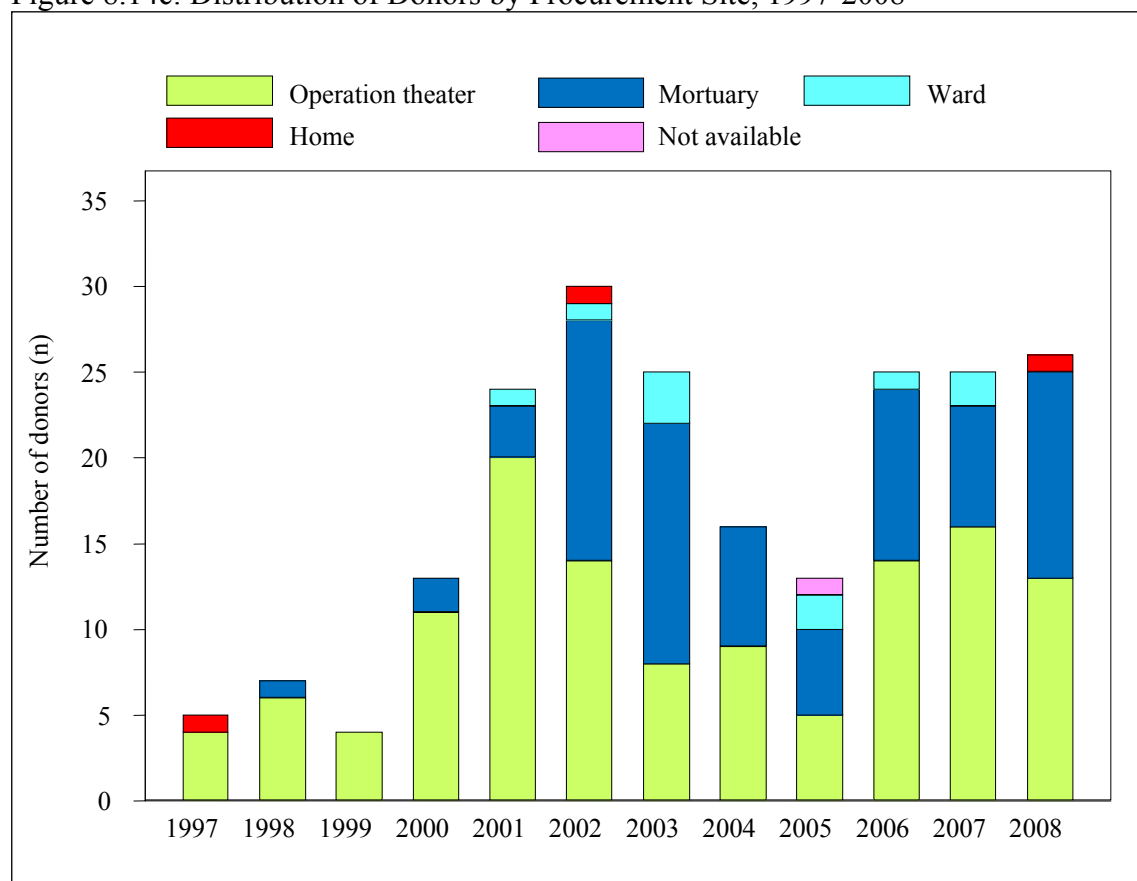


Table 8.15: Distribution of Donors by Inotrope, 2008

<b>Inotrope</b>	<b>No. (%)</b>
Dopamine	2 (15)
Dopamine/Noradrenaline	6 (46)
Dopamine/Adrenaline	2 (15)
Dopamine/Dobutamine/Adrenaline	1 (8)
Dopamine/Dobutamine/Adrenaline/Noradrenaline	1 (8)
Missing	1 (8)
Total	13 (100)