Table 1: Breakdown of Others group

	Autologous HCT (n=2445)	Allogeneic HCT (n=3131)
Asians	2029	2676
Native Hawaiian or other Pacific Islander	137	184
American Indian or Alaska Native	279	271

Abbreviations: HCT, hematopoietic cell transplantation

Table 2: Characteristics of Patients Based on Race/ Ethnicity Who Underwent and Registered Autologous Transplantation to CIBMTR, 2009 to 2018 (Data obtained from Transplant Essential Data forms)

Variable	Hispanics (n=7110)	Non-Hispanic Whites (n=59666)	Non-Hispanic African Americans (n=10683)	Others (n=2445)	P value
Year of transplant - n (%)					<0.01[a]
2009-2010	977 (14)	10048 (17)	1556 (15)	345 (14)	
2011-2012	1215 (17)	11632 (19)	1937 (18)	407 (17)	
2013-2014	1375 (19)	12234 (21)	2103 (20)	476 (19)	
2015-2016	1647 (23)	12632 (21)	2419 (23)	574 (23)	
2017-2018	1896 (27)	13120 (22)	2668 (25)	643 (26)	
Age; Median (range)	55 (18-80)	60 (18-85)	57 (18-81)	57 (18-82)	<0.01[a]
Males; n (%)	4272 (60)	36688 (61)	5479 (51)	1409 (58)	<0.01[a]
Karnofsky score at HCT<80; n (%)	713 (10)	6559 (11)	1329 (12)	235 (10)	<0.01[a]
Primary disease – n (%)					<0.01[a]
Acute myelogenous leukemia	61 (1)	374 (1)	66 (1)	30 (1)	
Acute lymphoblastic leukemia	15 (0)	50 (0)	5 (0)	6 (0)	
Other leukemia	3 (0)	42 (0)	4 (0)	0 (0)	
Myelodysplastic/myeloproliferative disorders	0 (0)	4 (0)	0 (0)	0 (0)	
Other acute leukemia	3 (0)	23 (0)	3 (0)	1 (0)	
Non-Hodgkin lymphoma	1893 (27)	18612 (31)	1417 (13)	835 (34)	
Hodgkin lymphoma	839 (12)	4728 (8)	858 (8)	202 (8)	
Plasma cell disorder/Multiple Myeloma	3939 (55)	34430 (58)	8236 (77)	1291 (53)	
Other Malignancies	343 (5)	1281 (2)	82 (1)	70 (3)	
Breast Cancer	0 (0)	7 (0)	0 (0)	0 (0)	
Severe aplastic anemia	0 (0)	2 (0)	0 (0)	0 (0)	
Inherited abnormalities erythrocyte differentiation or function	0 (0)	1 (0)	2 (0)	0 (0)	
SCID and other immune system disorders	3 (0)	4 (0)	0 (0)	2 (0)	
Histiocytic disorders	1 (0)	6 (0)	3 (0)	0 (0)	
Autoimmune Diseases	9 (0)	85 (0)	7 (0)	8 (0)	
Other, specify	1 (0)	17 (0)	0 (0)	0 (0)	
United States region - n (%)					<0.01[a]
West	2577 (36)	11339 (19)	855 (8)	1140 (47)	
Midwest	651 (9)	18340 (31)	2196 (21)	308 (13)	

South	2744 (39)	18084 (30)	5877 (55)	557 (23)	
Northeast	1138 (16)	11903 (20)	1755 (16)	440 (18)	
Follow-up - median (range) months	48 (0-135)	58 (0-136)	49 (0-133)	48 (1-131)	<0.01[a]

[a] Pearson chi-square test

Abbreviations: HCT, hematopoietic cell transplantation; SCID Severe combined immunodeficiency

Table 3: Characteristics of Patients Based on Race/ Ethnicity Who Underwent and Registered Autologous Transplantation to CIBMTR, 2009 to 2018 (Data obtained from Comprehensive Report forms)

Variable	Hispanics (n=583)	Non-Hispanic Whites (n=4730)	Non-Hispanic African Americans (n=2180)	Others (n=395)	P value
Year of transplant n (%)					<.01[a]
2009-2010	64 (11)	713 (15)	179 (8)	18 (5)	
2011-2012	66 (11)	614 (13)	135 (6)	22 (6)	
2013-2014	153 (26)	1089 (23)	402 (18)	78 (20)	
2015-2016	130 (22)	1032 (22)	684 (31)	127 (32)	
2017-2018	170 (29)	1282 (27)	780 (36)	150 (38)	
Age; Median (range)	55 (18-78)	61 (18-80)	58 (18-79)	60 (19-82)	<.01[a]
Males; n (%)	338 (58)	2882 (61)	1065 (49)	211 (53)	<.01[a]
Karnofsky score at HCT<80; n (%)	65 (11)	496 (10)	307 (14)	42 (11)	<.01[a]
HCT-CI >3; n (%)	195 (33)	1856 (39)	1028 (47)	169 (43)	<.01[a]
Primary disease - n (%)					<.01[a]
Non-Hodgkin lymphoma	161 (28)	1477 (31)	277 (13)	134 (34)	
Hodgkin lymphoma	69 (12)	319 (7)	148 (7)	27 (7)	
Plasma cell disorder/Multiple Myeloma	353 (61)	2934 (62)	1755 (81)	234 (59)	
Disease status (Lymphoma) - n (%)					<.01[a]
CR	132 (22.6)	1133 (24.0)	252 (11.6)	104 (26.3)	
PR	83 (14.2)	548 (11.6)	140 (6.4)	49 (12.4)	
Chemo resistant	14 (2.4)	105 (2.2)	28 (1.3)	7 (1.8)	
Untreated	0 (0.0)	3 (0.1)	1 (0.0)	1 (0.3)	
Unknown	1 (0.2)	7 (0.1)	4 (0.2)	0 (0.0)	
N/A, other disease	353 (60.5)	2934 (62.0)	1755 (80.5)	234 (59.2)	
Disease status prior to transplant (Multiple Myeloma) - n (%)					<.01[a]
CR	70 (12.0)	440 (9.3)	257 (11.8)	45 (11.4)	
VGPR	138 (23.7)	1051 (22.2)	650 (29.8)	84 (21.3)	
PR	117 (20.1)	1197 (25.3)	689 (31.6)	83 (21.0)	

SD	24 (4.1)	173 (3.7)	110 (5.0)	14 (3.5)	
PD/Relapse	4 (0.7)	66 (1.4)	40 (1.8)	6 (1.5)	
N/A, other disease	230 (39.5)	1796 (38.0)	425 (19.5)	161 (40.8)	
Not reported	0 (0.0)	7 (0.1)	9 (0.4)	2 (0.5)	
United States region; n (%)					<.01[a]
West	114 (20)	607 (13)	108 (5)	129 (33)	
Midwest	69 (12)	1857 (39)	459 (21)	89 (23)	
South	304 (52)	1605 (34)	1362 (62)	125 (32)	
Northeast	96 (16)	661 (14)	251 (12)	52 (13)	
Insurance - n (%)					<.01[a]
No insurance	20 (3)	30 (1)	37 (2)	12 (3)	
Medicaid +/- others	159 (27)	342 (7)	425 (19)	71 (18)	
Medicare +/- others	86 (15)	1255 (27)	492 (23)	92 (23)	
Disability insurance +/- others	13 (2)	139 (3)	69 (3)	4 (1)	
Private health insurance +/- others	290 (50)	2851 (60)	1088 (50)	200 (51)	
Other +/- others	12 (2)	94 (2)	58 (3)	14 (4)	
Has insurance, source unknown	3 (1)	7 (0)	6 (0)	0 (0)	
Missing	0 (0)	12 (0)	5 (0)	2 (1)	
Marital status - n (%)					<.01[a]
Single, never married	109 (19)	422 (9)	500 (23)	48 (12)	
Married	375 (64)	3614 (76)	1136 (52)	297 (75)	
Separated	11 (2)	40 (1)	57 (3)	8 (2)	
Divorced	50 (9)	414 (9)	302 (14)	24 (6)	
Widowed	21 (4)	142 (3)	88 (4)	11 (3)	
Missing	17 (3)	98 (2)	97 (4)	7 (2)	
Highest Education - n (%)					<.01[a]
No primary education	7 (0)	6 (0)	1 (0)	4 (0)	
Less than primary or elementary education	18 (1)	8 (0)	4 (0)	2 (0)	

Primary or elementary education	61 (4)	15 (0)	2 (0)	5 (1)	
Lower secondary education	88 (6)	229 (2)	44 (3)	21 (2)	
Upper secondary education	449 (31)	3103 (24)	423 (32)	166 (19)	
Post-secondary, non-tertiary education	118 (8)	1125 (9)	133 (10)	55 (6)	
Tertiary education, Type A	197 (13)	3380 (26)	270 (20)	235 (27)	
Tertiary education, Type B	69 (5)	738 (6)	75 (6)	39 (4)	
Advanced research qualification	29 (2)	639 (5)	44 (3)	70 (8)	
Missing	429 (29)	3641 (28)	342 (26)	276 (32)	
Current employment - n (%)					<.01[a]
Full time	174 (30)	1539 (33)	622 (29)	103 (26)	
Part time	18 (3)	208 (4)	66 (3)	17 (4)	
Unemployed	93 (16)	282 (6)	195 (9)	32 (8)	
Medical disability	92 (16)	559 (12)	450 (21)	39 (10)	
Retired	95 (16)	1610 (34)	579 (27)	118 (30)	
PT,by choice and not due to illness	0 (0)	36 (1)	11 (1)	4 (1)	
PT,due to illness	2 (0)	16 (0)	11 (1)	3 (1)	
Unemployed,by choice and not due to illness	9 (2)	27 (1)	19 (1)	10 (3)	
Unemployed,due to illness	19 (3)	36 (1)	42 (2)	13 (3)	
Missing	81 (14)	417 (9)	185 (8)	56 (14)	
Distance from residence to Transplant center in miles; Median (range)	21 (0-1602)	38 (0-2679)	19 (0-1641)	20 (0-4001)	<.01[a]
% below national poverty level in Patient's 5-digit	15 (0-55)	9 (0-73)	16 (0-60)	9 (0-60)	<.01[a]

ZIP , Median (range)					
Follow-up - median (range)	46 (0-119)	49 (1-136)	37 (0-129)	36 (1-122)	<.01[a]

[a] Pearson chi-square test

Abbreviations: HCT, hematopoietic cell transplantation; CR, complete remission; PR, partial remission; VGPR, very good partial remission, SD, stable disease; PD, progressive disease

Table 4: Characteristics of Patients Based on Race/ Ethnicity Who Underwent and Registered Allogeneic Transplantation to CIBMTR, 2009 to 2018 (Data obtained from Transplant Essential Data forms)

Variable	Hispanics (n=8358)	Non-Hispanic Whites (n=48778)	Non-Hispanic African Americans (n=5395)	Others (n=3131)	P value
Year of transplant, n (%)					<0.01[a]
2009-2010	1346 (16)	8689 (18)	862 (16)	493 (16)	
2011-2012	1499 (18)	9590 (20)	934 (17)	598 (19)	
2013-2014	1641 (20)	10188 (21)	1098 (20)	643 (21)	
2015-2016	1866 (22)	10002 (21)	1179 (22)	672 (21)	
2017-2018	2006 (24)	10309 (21)	1322 (25)	725 (23)	
Age; Median (range)	31 (0-81)	55 (0-88)	37 (0-77)	41 (0-79)	<0.01[a]
Males; n (%)	4734 (57)	28943 (59)	2908 (54)	1662 (53)	<0.01[a]
Karnofsky score at HCT<80; n (%)	667 (8)	6055 (12)	519 (10)	311 (10)	<0.01[a]
Primary disease, n (%)					<0.01[a]
Acute myelogenous leukemia	2370 (28)	18669 (38)	1520 (28)	1132 (36)	
Acute lymphoblastic leukemia	2493 (30)	5972 (12)	623 (12)	526 (17)	
Other leukemia	72 (1)	1680 (3)	159 (3)	27 (1)	
Chronic myelogenous leukemia	275 (3)	1429 (3)	249 (5)	87 (3)	
Myelodysplastic/myeloproliferative disorders	765 (9)	9572 (20)	536 (10)	442 (14)	
Other acute leukemia	149 (2)	463 (1)	70 (1)	55 (2)	
Non-Hodgkin lymphoma	596 (7)	5176 (11)	528 (10)	270 (9)	
Hodgkin lymphoma	192 (2)	1006 (2)	130 (2)	52 (2)	
Plasma cell disorder/Multiple Myeloma	131 (2)	1169 (2)	161 (3)	54 (2)	
Other Malignancies	5 (0)	72 (0)	6 (0)	1 (0)	
Breast Cancer	1 (0)	2 (0)	0 (0)	0 (0)	
Severe aplastic anemia	419 (5)	1334 (3)	258 (5)	152 (5)	
Inherited abnormalities erythrocyte differentiation or function	255 (3)	534 (1)	903 (17)	182 (6)	
SCID and other immune system disorders	339 (4)	909 (2)	112 (2)	89 (3)	
Inherited abnormalities of platelets	26 (0)	29 (0)	7 (0)	9 (0)	
Inherited disorders of metabolism	109 (1)	377 (1)	35 (1)	17 (1)	
Histiocytic disorders	138 (2)	286 (1)	89 (2)	31 (1)	
Autoimmune Diseases	9 (0)	39 (0)	4 (0)	1 (0)	
Other, specify	14 (0)	60 (0)	5 (0)	4 (0)	
Conditioning intensity, n (%)					<0.01[a]

MAC/TBI	2646 (32)	7900 (16)	1055 (20)	785 (25)	
MAC/Chemo	2453 (29)	15020 (31)	1465 (27)	847 (27)	
RIC/NMA	2301 (28)	21760 (45)	2089 (39)	1111 (35)	
Missing	958 (11)	4098 (8)	786 (15)	388 (12)	
Donor type, n (%)					<0.01[a]
HLA-identical sibling	3065 (37)	14066 (29)	1639 (30)	1098 (35)	
Other related	1152 (14)	4192 (9)	1364 (25)	437 (14)	
Well-matched unrelated (8/8)	1732 (21)	22476 (46)	744 (14)	774 (25)	
Mismatched unrelated (<8/8)	969 (12)	3841 (8)	672 (12)	307 (10)	
Multi-donor	36 (0)	192 (0)	20 (0)	8 (0)	
Unrelated (matching TBD)	48 (1)	675 (1)	22 (0)	41 (1)	
Cord blood	1356 (16)	3334 (7)	934 (17)	466 (15)	
Missing	0 (0)	2 (0)	0 (0)	0 (0)	
Graft type, n (%)					<0.01[a]
Bone Marrow	2320 (28)	9557 (20)	1774 (33)	779 (25)	
Peripheral Blood	4682 (56)	35887 (74)	2687 (50)	1886 (60)	
Cord Blood	1356 (16)	3334 (7)	934 (17)	466 (15)	
United States region, n (%)					<0.01[a]
West	3456 (41)	9717 (20)	542 (10)	1489 (48)	
Midwest	841 (10)	13562 (28)	1148 (21)	367 (12)	
South	2931 (35)	14599 (30)	2749 (51)	678 (22)	
Northeast	1130 (14)	10900 (22)	956 (18)	597 (19)	
Follow-up in months; Median (range)	49 (2-127)	59 (0-135)	48 (1-126)	49 (0-126)	

Abbreviations: HCT, hematopoietic cell transplantation; SCID Severe combined immunodeficiency; MAC, myeloablative conditioning; TBI, Total Body irradiation; RIC, Reduced intensity conditioning; NMA, Non-myeloablatiev conditioning; HLA, human leukocyte antigen

Table 5: Characteristics of Adult Patients Based on Race/ Ethnicity Who Underwent and Registered Allogeneic Transplantation to CIBMTR, 2009 to 2018 (Data obtained from Comprehensive Report forms)

Variable	Hispanics (n=1465)	Non-Hispanic Whites (n=12884)	Non-Hispanic African Americans (n=1338)	Others (n=873)	P value
Year of transplant, n (%)					<0.01[a]
2009-2010	270 (18)	2473 (19)	193 (14)	123 (14)	
2011-2012	178 (12)	1590 (12)	126 (9)	72 (8)	
2013-2014	340 (23)	3219 (25)	303 (23)	215 (25)	
2015-2016	344 (23)	3068 (24)	368 (28)	231 (26)	
2017-2018	333 (23)	2534 (20)	348 (26)	232 (27)	
Age; Median (range)	46 (18-77)	59 (18-88)	50 (18-77)	51 (18-79)	<0.01[a]
Males; n (%)	820 (56)	7772 (60)	685 (51)	453 (52)	<0.01[a]
Karnofsky score at HCT<80; n (%)	152 (10)	1807 (14)	176 (13)	99 (11)	<0.01[a]
HCT-CI>3; n (%)	554 (38)	6221 (48)	665 (50)	386 (44)	<0.01[a]
Primary disease, n (%)					<0.01[a]
Acute myelogenous leukemia	532 (36)	4994 (39)	564 (42)	430 (49)	
Acute lymphoblastic leukemia	447 (31)	1113 (9)	189 (14)	145 (17)	
Chronic Lymphocytic leukemia	19 (1)	417 (3)	57 (4)	7 (1)	
Myelodysplastic Syndrome/ Myeloproliferative neoplasm	285 (19)	5106 (40)	290 (22)	209 (24)	
Disease status at time of HCT (MDS) - no. (%)					<.01[a]
MDS early	132 (9.0)	2150 (16.7)	133 (9.9)	85 (9.7)	
MDS advanced	138 (9.4)	2691 (20.9)	139 (10.4)	110 (12.6)	
Other	15 (1.0)	265 (2.1)	18 (1.3)	14 (1.6)	
N/A, other disease	1180 (80.5)	7778 (60.4)	1048 (78.3)	664 (76.1)	
Disease status at time of HCT (AML/ALL) - no. (%)					<.01[a]
PIF	77 (5.3)	729 (5.7)	79 (5.9)	64 (7.3)	
CR1	557 (38.0)	3770 (29.3)	414 (30.9)	357 (40.9)	
CR2	235 (16.0)	1077 (8.4)	157 (11.7)	117 (13.4)	
>=CR3	31 (2.1)	90 (0.7)	37 (2.8)	8 (0.9)	
Relapse	79 (5.4)	440 (3.4)	66 (4.9)	29 (3.3)	
N/A, other disease	486 (33.2)	6777 (52.6)	585 (43.7)	298 (34.1)	

Not reported	0 (0.0)	1 (0.0)	0 (0.0)	0 (0.0)	
Conditioning intensity - no. (%)					<.01[a]
MAC/TBI	489 (33)	2024 (16)	346 (26)	225 (26)	
MAC/Chemo	373 (25)	3684 (29)	328 (25)	216 (25)	
RIC/NMA	585 (40)	6917 (54)	640 (48)	409 (47)	
Missing	18 (1)	259 (2)	24 (2)	23 (3)	
Donor type - no. (%)					<.01[a]
HLA-identical sibling	426 (29)	3066 (24)	281 (21)	228 (26)	
Other related	256 (17)	1358 (11)	385 (29)	126 (14)	
Well-matched unrelated (8/8)	275 (19)	6071 (47)	197 (15)	238 (27)	
Mismatched unrelated (<8/8)	157 (11)	953 (7)	146 (11)	69 (8)	
Multi-donor	3 (0)	45 (0)	6 (0)	2 (0)	
Unrelated (matching TBD)	2 (0)	23 (0)	1 (0)	2 (0)	
Cord blood	346 (24)	1368 (11)	322 (24)	205 (23)	
Graft type - no. (%)					<.01[a]
Bone Marrow	181 (12)	1680 (13)	190 (14)	107 (12)	
Peripheral Blood	938 (64)	9836 (76)	826 (62)	561 (64)	
Cord Blood	346 (24)	1368 (11)	322 (24)	205 (23)	
US region, n (%)					<.01[a]
West	550 (38)	2424 (19)	121 (9)	426 (49)	
Midwest	147 (10)	4120 (32)	329 (25)	99 (11)	
South	538 (37)	3609 (28)	652 (49)	167 (19)	
Northeast	230 (16)	2731 (21)	236 (18)	181 (21)	
Insurance, n (%)					<.01[a]
No insurance	28 (2)	79 (1)	16 (1)	11 (1)	
Medicaid +/- others	475 (32)	1148 (9)	318 (24)	167 (19)	
Medicare +/- others	193 (13)	3561 (28)	212 (16)	117 (13)	
Disability insurance +/- others	24 (2)	280 (2)	47 (4)	22 (3)	
Private health insurance +/- others	674 (46)	7384 (57)	680 (51)	520 (60)	
Other	55 (4)	310 (2)	55 (4)	23 (3)	
Has insurance, source unknown	3 (0)	27 (0)	2 (0)	2 (0)	
Missing	13 (1)	95 (1)	8 (1)	11 (1)	
Marital status, n (%)					<.01[a]

Single, never married	385 (26)	1501 (12)	397 (30)	149 (17)	
Married	851 (58)	9470 (74)	685 (51)	605 (69)	
Separated	35 (2)	120 (1)	22 (2)	8 (1)	
Divorced	112 (8)	1064 (8)	144 (11)	44 (5)	
Widowed	27 (2)	362 (3)	25 (2)	22 (3)	
Missing	55 (4)	367 (3)	65 (5)	45 (5)	
Highest Education, n (%)					<.01[a]
No primary education	7 (0)	6 (0)	1 (0)	4 (0)	
Less than primary or elementary education	18 (1)	8 (0)	4 (0)	2 (0)	
Primary or elementary education	61 (4)	15 (0)	2 (0)	5 (1)	
Lower secondary education	88 (6)	229 (2)	44 (3)	21 (2)	
Upper secondary education	449 (31)	3103 (24)	423 (32)	166 (19)	
Post-secondary, non-tertiary education	118 (8)	1125 (9)	133 (10)	55 (6)	
Tertiary education, Type A	197 (13)	3380 (26)	270 (20)	235 (27)	
Tertiary education, Type B	69 (5)	738 (6)	75 (6)	39 (4)	
Advanced research qualification	29 (2)	639 (5)	44 (3)	70 (8)	
Missing	429 (29)	3641 (28)	342 (26)	276 (32)	
Current employment, n (%)					<.01[a]
Full time	408 (28)	3556 (28)	397 (30)	248 (28)	
Part time	41 (3)	518 (4)	45 (3)	29 (3)	
Unemployed	258 (18)	982 (8)	126 (9)	108 (12)	
Medical disability	267 (18)	2185 (17)	313 (23)	136 (16)	
Retired	163 (11)	3879 (30)	214 (16)	142 (16)	
PT,by choice and not due to illness	6 (0)	110 (1)	10 (1)	5 (1)	
PT,due to illness	6 (0)	31 (0)	4 (0)	4 (0)	

Unemployed, by choice and not due to illness	22 (2)	76 (1)	13 (1)	13 (1)	
Unemployed, due to illness	33 (2)	133 (1)	33 (2)	21 (2)	
Missing	261 (18)	1414 (11)	183 (14)	167 (19)	
Distance from residence to Transplant center in miles; Median (range)	23 (0-4766)	42 (0-2911)	19 (0-1485)	21 (0-6132)	<.01[a]
% below national poverty level in Patient's 5-digit ZIP , Median (range)	15 (0-86)	9 (0-77)	15 (0-58)	9 (0-50)	<.01[a]
Follow-up - median (range)	50 (2-125)	59 (2-135)	48 (2-123)	47 (3-126)	

Abbreviations: HCT, hematopoietic cell transplantation; SCID Severe combined immunodeficiency; MAC, myeloablative conditioning; TBI, Total Body irradiation; RIC, Reduced intensity conditioning; NMA, Non-myeloablatiev conditioning; HLA, human leukocyte antigen

Table 6: Characteristics of Pediatric Patients Based on Race/ Ethnicity Who Underwent and Registered Allogeneic Transplantation to CIBMTR, 2009 to 2018 (Data obtained from Comprehensive Report forms)

Variable	Hispanics (n=559)	Non-Hispanic Whites (n=893)	Non-Hispanic African Americans (n=236)	Others (n=132)	P value
Year of transplant - no. (%)					<.01[a]
2009-2010	136 (24)	303 (34)	50 (21)	35 (27)	
2011-2012	80 (14)	112 (13)	22 (9)	18 (14)	
2013-2014	140 (25)	195 (22)	61 (26)	24 (18)	
2015-2016	125 (22)	182 (20)	54 (23)	31 (23)	
2017-2018	78 (14)	101 (11)	49 (21)	24 (18)	
Age; Median (range)	9 (0-18)	9 (0-18)	10 (0-18)	9 (1-18)	0.05[a]
Males; n (%)	317 (57)	519 (58)	137 (58)	72 (55)	0.85[a]
Karnofsky score at HCT<80; n (%)	24 (4)	38 (4)	9 (4)	4 (3)	0.98[a]
HCT-CI >3; no. (%)	98 (18)	140 (16)	38 (16)	25 (19)	0.85[a]
Primary disease - no. (%)					<0.01[a]
Acute myelogenous leukemia	213 (38)	418 (47)	108 (46)	60 (45)	
Acute lymphoblastic leukemia	300 (54)	309 (35)	93 (39)	49 (37)	
MDS/MPD	33 (6)	127 (14)	18 (8)	16 (12)	
Conditioning intensity - no. (%)					0.04[a]
MAC/TBI	324 (58)	453 (51)	121 (51)	66 (50)	
MAC/Chemo	191 (34)	371 (42)	88 (37)	53 (40)	
RIC/NMA	32 (6)	44 (5)	22 (9)	7 (5)	
Disease status at time of HCT (MDS) - no. (%)					<.01[a]
MDS early	13 (2.3)	58 (6.5)	11 (4.7)	6 (4.5)	
MDS advanced	9 (1.6)	36 (4.0)	5 (2.1)	3 (2.3)	
Other	11 (2.0)	33 (3.7)	2 (0.8)	7 (5.3)	

N/A, other disease	526 (94.1)	766 (85.8)	218 (92.4)	116 (87.9)	
Disease status at time of HCT (AML/ALL) - no. (%)					<.01[a]
PIF	25 (4.5)	28 (3.1)	12 (5.1)	3 (2.3)	
CR1	224 (40.1)	359 (40.2)	83 (35.2)	57 (43.2)	
CR2	206 (36.9)	256 (28.7)	83 (35.2)	40 (30.3)	
>=CR3	38 (6.8)	45 (5.0)	10 (4.2)	4 (3.0)	
Relapse	20 (3.6)	39 (4.4)	13 (5.5)	5 (3.8)	
N/A, other disease	46 (8.2)	166 (18.6)	35 (14.8)	23 (17.4)	
Donor type - no. (%)					<0.01[a]
HLA-identical sibling	67 (12)	135 (15)	26 (11)	18 (14)	
Other related	80 (14)	52 (6)	37 (16)	26 (20)	
Well-matched unrelated (8/8)	55 (10)	254 (28)	12 (5)	18 (14)	
Mismatched unrelated (<8/8)	41 (8)	45 (5)	35 (15)	13 (10)	
Unrelated (matching TBD)	1 (0)	1 (0)	1 (0)	0 (0)	
Cord blood	315 (56)	406 (45)	125 (53)	57 (43)	
Graft type - no. (%)					<.01[a]
Bone Marrow	162 (29)	391 (44)	83 (35)	54 (41)	
Peripheral Blood	82 (15)	96 (11)	28 (12)	21 (16)	
Cord Blood	315 (56)	406 (45)	125 (53)	57 (43)	
US region of transplant center - no. (%)					<.01[a]
West	232 (42)	178 (20)	18 (8)	63 (48)	
Midwest	69 (12)	302 (34)	49 (21)	20 (15)	
South	218 (39)	260 (29)	145 (61)	38 (29)	
Northeast	40 (7)	153 (17)	24 (10)	11 (8)	
Insurance - no. (%)					<.01[a]

No insurance	18 (3)	9 (1)	2 (1)	6 (5)	
Medicaid +/- others	367 (66)	338 (38)	160 (68)	51 (39)	
Medicare +/- others	7 (1)	1 (0)	0 (0)	0 (0)	
Disability insurance +/- others	5 (1)	6 (1)	1 (0)	2 (2)	
Private health insurance +/- others	126 (23)	479 (54)	59 (25)	64 (48)	
Other +/- others	31 (6)	44 (5)	11 (5)	7 (5)	
Has insurance, source unknown	2 (0)	3 (0)	0 (0)	0 (0)	
Missing	3 (1)	13 (1)	3 (1)	2 (2)	
Highest Education - no. (%)					0.95[a]
No primary education	112 (20)	199 (22)	56 (24)	30 (23)	
Less than primary or elementary education	80 (14)	130 (15)	26 (11)	17 (13)	
Primary or elementary education	91 (16)	170 (19)	48 (20)	28 (21)	
Lower secondary education	118 (21)	162 (18)	52 (22)	24 (18)	
Upper secondary education	57 (10)	89 (10)	25 (11)	14 (11)	
Post-secondary, non-tertiary education	1 (0)	1 (0)	0 (0)	0 (0)	
Tertiary education, Type A	1 (0)	1 (0)	0 (0)	0 (0)	

Advanced research qualification	0 (0)	1 (0)	0 (0)	0 (0)	
Missing	99 (18)	140 (16)	29 (12)	19 (14)	
Distance from residence to Transplant center - no. (%)					<.01[a]
Median (min-max)	26 (0-1888)	47 (0-2005)	20 (1-1103)	22 (0-2649)	
% below national poverty level in Patient's 5-digit ZIP Median (range)	16 (0-53)	10 (0-51)	16 (0-58)	11 (0-56)	<.01[a]
Follow-up - median (range)	59 (5-126)	60 (5-128)	47 (5-121)	52 (11-121)	

Abbreviations: HCT, hematopoietic cell transplantation; SCID Severe combined immunodeficiency; MAC, myeloablative conditioning; TBI, Total Body irradiation; RIC, Reduced intensity conditioning; NMA, Non-myeloablatiev conditioning; MDS, Myelodysplastic syndrome; PIF, Primary induction failure; CR, Complete remission; HLA, human leukocyte antigen

Table 7: Full model for Overall mortality for Auto HCT

Parameter	Category	HR	CL_lower	CL_upper	p-value
Race	Non-Hispanic White	1.00	.	.	0.1861
	Non-Hispanic Afircan-American	0.91	0.81	1.03	0.1242
	Hispanic	1.04	0.87	1.25	0.6588
	Other	0.83	0.65	1.05	0.1263
Year of transplant	2009-10	1.00	.	.	<.0001
	2011-12	0.89	0.77	1.03	0.1305
	2013-14	0.78	0.69	0.90	0.0004
	2015-16	0.72	0.62	0.83	<.0001
	2017-18	0.60	0.50	0.72	<.0001
Age	18-29	1.00	.	.	<.0001
	30-39	0.92	0.61	1.37	0.6731
	40-49	1.22	0.85	1.74	0.2838
	50-59	1.61	1.13	2.29	0.0082
	60-69	1.90	1.34	2.70	0.0003
	70+	2.51	1.73	3.65	<.0001
Sex	Male	1.00	.	.	<.0001
	Female	0.83	0.75	0.91	<.0001
Disease	Non hodgkin's lymphoma	1.00	.	.	<.0001
	Hodgkin's lymphoma	0.57	0.45	0.73	<.0001
	Plasma cell disorder/Multiple myeloma	0.75	0.62	0.90	0.0023
Disease status (lymphoma)	CR	1.00	.	.	<.0001
	PR	1.57	1.34	1.84	<.0001
	Chemoresistant	2.72	2.09	3.55	<.0001
	Unknown	2.26	1.06	4.81	0.0345
Disease status prior to transplant (MM)	SCR/CR	1.00	.	.	<.0001
	VGPR	1.12	0.94	1.35	0.2074
	PR	1.22	1.02	1.45	0.0290
	SD	1.42	1.11	1.83	0.0059
	PD/Relapse	3.09	2.30	4.17	<.0001
	Missing	1.59	0.59	4.33	0.3598
HCT-CI	0	1.00	.	.	<.0001
	1-2	1.03	0.91	1.17	0.6010
	3+	1.38	1.23	1.55	<.0001
	Missing	1.08	0.85	1.36	0.5359

Karnofsky score	80-100	1.00	.	.	<.0001
	<80	1.49	1.31	1.70	<.0001
	Missing	1.03	0.75	1.43	0.8344
Marital status	Married	1.00	.	.	0.0006
	Single/separated/ divorced/widowed	1.23	1.10	1.36	0.0001

Table 8: Full Model for overall mortality in adult patients undergoing allo HCT

Parameter	Category	HR	CL_lower	CL_upper	p-value
Race	Non-Hispanic White	1.00	.	.	0.0242
	Non-Hispanic African-American	1.13	1.04	1.22	0.0041
	Hispanic	1.01	0.92	1.10	0.8888
	Other	0.97	0.87	1.07	0.5045
Year of tx	2009-10	1.00	.	.	<.0001
	2011-12	0.91	0.85	0.98	0.0137
	2013-14	0.81	0.76	0.86	<.0001
	2015-16	0.78	0.73	0.83	<.0001
	2017-18	0.66	0.61	0.71	<.0001
Age	18-29	1.00	.	.	<.0001
	30-39	1.05	0.94	1.17	0.4107
	40-49	1.16	1.05	1.28	0.0034
	50-59	1.42	1.29	1.56	<.0001
	60-69	1.62	1.47	1.78	<.0001
	70+	1.85	1.64	2.09	<.0001
Disease	AML	1.00	.	.	<.0001
	ALL	0.88	0.81	0.95	0.0010
	Other leukemia	1.06	0.91	1.22	0.4668
	MDS/MPD	0.91	0.86	0.96	0.0006
	NHL	0.78	0.71	0.85	<.0001
	HL	0.71	0.59	0.85	0.0002
Donor	HLA-id sib	1.00	.	.	<.0001
	Other related	1.26	1.14	1.41	<.0001
	Well matched URD	1.07	1.02	1.14	0.0127
	Partially matched URD	1.39	1.28	1.52	<.0001
	Mismatched URD	1.61	1.18	2.18	0.0024
	Multidonor	1.37	0.91	2.05	0.1276
	Unrelated. Matched unknown	1.58	0.90	2.77	0.1093
	Cord blood	1.49	1.36	1.63	<.0001
Donor-recipient CMV match (not Cords)	+/+	1.00	.	.	0.0014
	+/-	1.00	0.92	1.08	0.9094
	-/+	1.05	0.99	1.11	0.1343
	-/-	0.91	0.86	0.98	0.0063
	Missing	1.00	0.78	1.29	0.9963
Disease Risk index	Low	1.00	.	.	<.0001
	Intermediate	1.35	1.21	1.51	<.0001
	High	2.21	1.98	2.47	<.0001

	Very high	2.72	2.35	3.15	<.0001
	N/A	1.67	1.45	1.93	<.0001
	Missing	1.83	1.55	2.18	<.0001
Donor-recipient sex match	M-M	1.00	.	.	0.0041
	M-F	0.96	0.91	1.02	0.2074
	F-M	1.09	1.02	1.16	0.0081
	F-F	0.96	0.89	1.03	0.2188
	Missing	1.04	0.62	1.76	0.8788
GVHD prophylaxis	T-depletion	1.00	.	.	<.0001
	CD34 select	0.65	0.47	0.88	0.0063
	Cyclophosphamide	0.69	0.51	0.92	0.0117
	FK506 +/- MMF +/- MTX	0.76	0.57	1.02	0.0668
	CSA +/- MMF +/- MTX	0.86	0.64	1.15	0.3019
	Other GVHD prophylaxis	0.86	0.61	1.20	0.3672
	Missing	0.94	0.64	1.39	0.7703
HCT-CI	0	1.00	.	.	<.0001
	1-2	1.09	1.02	1.16	0.0105
	3+	1.35	1.27	1.44	<.0001
	Missing	1.11	1.00	1.24	0.0494
Insurance	Private	1.00	.	.	<.0001
	No insurance	1.08	0.85	1.36	0.5458
	Medicaid+/- other	1.15	1.08	1.24	<.0001
	Medicare +/- other	1.08	1.02	1.15	0.0102
	Disability insurance +/- other	0.99	0.85	1.15	0.8960
	Other	1.04	0.91	1.19	0.5511
	Has insurance, unknown type	2.01	1.34	3.01	0.0007
	Missing	0.74	0.55	0.99	0.0444
Karnofsky score	80-100	1.00	.	.	<.0001
	<80	1.27	1.19	1.35	<.0001
	Missing	1.04	0.87	1.25	0.6467

Table 9: Stratified analysis by donor type for overall mortality in adult patients undergoing allo HCT

Donor	Race Category	HR	CL_lower	CL_upper	p-value
HLA-identical sib	Non-Hispanic White	1.00	.	.	0.6966
	Non-Hispanic African-American	0.99	0.83	1.19	0.9160
	Hispanic	0.92	0.78	1.09	0.3271
	Other	0.92	0.74	1.14	0.4247
Other related	Non-Hispanic White	1.00	.	.	0.5810
	Non-Hispanic African-American	1.10	0.92	1.31	0.2991
	Hispanic	0.99	0.79	1.25	0.9375
	Other	1.15	0.87	1.52	0.3330
Matched unrelated donor	Non-Hispanic White	1.00	.	.	0.0057
	Non-Hispanic African-American	1.40	1.16	1.70	0.0004
	Hispanic	1.04	0.86	1.24	0.6929
	Other	1.04	0.86	1.26	0.7056
Partially matched unrelated donor	Non-Hispanic White	1.00	.	.	0.0003
	Non-Hispanic African-American	1.53	1.20	1.96	0.0007
	Hispanic	0.93	0.71	1.21	0.5750
	Other	0.68	0.46	0.99	0.0455
Cord blood	Non-Hispanic White	1.00	.	.	0.1152
	Non-Hispanic African-American	1.10	0.93	1.30	0.2663
	Hispanic	1.22	1.03	1.44	0.0211
	Other	1.02	0.83	1.25	0.8486

Table 10: Full model for overall mortlaity for pediatric patients undergoing allo HCT

Parameter	Category	HR	CL_lower	CL_upper	p-value
Race	Non-Hispanic White	1.00	.	.	<.0001
	Non-Hispanic African-American	1.62	1.30	2.03	<.0001
	Hispanic	1.17	0.97	1.41	0.0992
	Other	1.47	1.11	1.96	0.0079
Year of tx	2009-10	1.00	.	.	<.0001
	2011-12	1.05	0.83	1.32	0.7081
	2013-14	0.75	0.61	0.93	0.0080
	2015-16	0.53	0.42	0.68	<.0001
	2017-18	0.71	0.54	0.92	0.0112
Disease	AML	1.00	.	.	0.0243
	ALL	0.82	0.69	0.98	0.0306
	MDS/MPD	1.09	0.82	1.43	0.5588
	NHL	1.55	1.00	2.38	0.0490
	HL	0.68	0.25	1.85	0.4515
Disease status at time of HCT (AML/ALL)	CR1	1.00	.	.	<.0001
	CR2	1.18	0.98	1.42	0.0846
	>=CR3	1.70	1.23	2.35	0.0013
	PIF	1.85	1.30	2.64	0.0006
	Relapse	3.00	2.23	4.03	<.0001
HCT-CI	0	1.00	.	.	0.0013
	1-2	1.21	0.99	1.47	0.0603
	3+	1.49	1.22	1.82	0.0001
	Missing	1.08	0.78	1.51	0.6370
Recipient CMV status	Negative	1.00	.	.	<.0001
	Positive	1.63	1.38	1.93	<.0001
	Unknown	1.66	0.81	3.41	0.1659