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Supplemental Table 1: Polycythemia Vera–related Deaths, Stratified by Sex and Race, in Adults in the United States, 1999 to 2023.

Year	Overall	Women	Men	NH White	NH Black or African American	NH Asian or Pacific Islander	NH American Indian or Alaska Native	Hispanic or Latino
1999	1,093	580	513	1,007	46	10	Missing	26
2000	1,100	614	486	1,025	48	Missing	0	23
2001	1,060	544	516	1,004	32	Missing	0	18
2002	994	543	451	898	54	11	Missing	26
2003	1,004	500	504	921	41	12	Missing	25
2004	1,004	519	485	934	39	Missing	Missing	23
2005	963	514	449	894	41	11	0	17
2006	932	491	441	859	32	Missing	Missing	30
2007	888	466	422	812	33	12	Missing	27
2008	910	473	437	850	30	11	Missing	18
2009	878	460	418	809	32	13	Missing	23
2010	886	451	435	801	39	17	Missing	27
2011	901	433	468	824	48	Missing	Missing	19
2012	853	428	425	774	39	11	Missing	22
2013	845	429	416	760	41	12	Missing	30
2014	837	433	404	735	48	19	Missing	32
2015	823	417	406	746	32	15	Missing	27
2016	886	447	439	784	35	29	Missing	33
2017	917	421	496	815	43	20	Missing	34
2018	933	463	470	834	40	17	Missing	39
2019	947	428	519	839	40	26	Missing	38
2020	1,190	545	645	1,047	60	34	Missing	46
2021	1,181	572	609	1,046	51	21	Missing	54
2022	1,141	532	609	1,001	67	23	Missing	47
2023	1,070	504	566	944	61	25	Missing	36
Total	24,236	12,207	12,029	21,963	1,072	349	0	740

NH, non-Hispanic

Supplemental Table 2: Annual percent change (APC) of Polycythemia Vera–related Age-Adjusted Mortality Rates per 100,000 in Adults in the United States, 1999 to 2023.

Year Interval	APC (95% CI)
Overall	
1999-2014	−3.83 (−5.22 to −2.36)
2014-2018	0.91 (−4.24 to 2.97)
2018-2021	7.36 (4.27 to 9.86)
2021-2023	−6.8 (−10.59 to −2.35)
Female	
1999-2018	−3.72 (−4.42 to −3.17)
2018-2021	13.42 (−4.46 to 17.36)
2021-2023	−7.16 (−14.71 to 5.47)
Male	
1999-2015	−3.78 (−4.52 to −3.06)
2015-2021	5.07 (−4.19 to 11.04)
2021-2023	−6.54 (−12.63 to 2.72)
NH Black or African American	
1999-2016	−3.46 (−11.4 to −1.78)
2016-2023	5.12 (−0.71 to 26.87)
NH White	
1999-2016	−3.48 (−3.96 to −3.07)
2016-2021	6.85 (4.63 to 12.74)
2021-2023	−6.7 (−12.21 to −0.43)
Metropolitan	
1999-2015	−4.01 (−4.52 to −3.59)
2015-2020	3.42 (1.29 to 7.24)
Non-metropolitan	
1999-2017	−2.83 (−3.74 to −2.25)
2017-2020	10.08 (2.01 to 21.43)
Northeast	
1999-2014	−3.26 (−7.74 to −2.24)
2014-2023	0.76 (−1.45 to 8.9)
Midwest	
1999-2016	−3.48 (−4.22 to −2.87)

2016-2021	3.98 (−3.39 to 10.45)
2021-2023	−11.23 (−18.39 to −0.06)
South	
1999-2015	−4.58 (−5.81 to −2.98)
2015-2021	6.61 (−7.18 to 12.85)
2021-2023	−3.75 (−9.65 to 4.65)
West	
1999-2013	−4.03 (−6.06 to −2.83)
2013-2023	2.66 (0.84 to 6.16)
Age 45-64 Years	
1999-2012	−2.98 (−9.47 to −0.9)
2012-2023	−2.72 (0.51 to 9.79)
65+ Years	
1999-2016	−3.87 (−4.5 to −3.24)
2016-2021	4.31 (−4.96 to 9.8)
2021-2023	−5.91 (−11.24 to 1.68)

APC = annual percent change; NH = non-Hispanic.

Supplemental Table 3: Overall and Sex-Stratified Polycythemia Vera–Related Age-Adjusted Mortality Rates per 100,000 in Adults in the United States, 1999 to 2023.

Year	Overall	Women	Men
1999	1.15 (1.09-1.22)	1 (0.92-1.08)	1.38 (1.26-1.51)
2000	1.14 (1.07-1.21)	1.03 (0.95-1.11)	1.29 (1.17-1.4)
2001	1.09 (1.02-1.15)	0.89 (0.81-0.96)	1.36 (1.24-1.47)
2002	1.02 (0.95-1.08)	0.91 (0.83-0.98)	1.14 (1.03-1.25)
2003	1.01 (0.94-1.07)	0.82 (0.75-0.9)	1.25 (1.14-1.36)
2004	0.99 (0.93-1.05)	0.81 (0.74-0.88)	1.19 (1.08-1.3)
2005	0.9 (0.85-0.96)	0.83 (0.76-0.9)	1.06 (0.96-1.16)
2006	0.89 (0.83-0.94)	0.75 (0.69-0.82)	1.01 (0.91-1.1)
2007	0.82 (0.76-0.87)	0.7 (0.64-0.77)	0.96 (0.86-1.05)
2008	0.83 (0.78-0.89)	0.7 (0.64-0.77)	0.97 (0.88-1.06)
2009	0.79 (0.74-0.84)	0.71 (0.64-0.77)	0.88 (0.79-0.96)
2010	0.79 (0.73-0.84)	0.67 (0.6-0.73)	0.92 (0.83-1.01)
2011	0.75 (0.7-0.8)	0.6 (0.54-0.66)	0.93 (0.85-1.02)
2012	0.73 (0.68-0.78)	0.5 (0.54-0.65)	0.84 (0.76-0.92)
2013	0.67 (0.62-0.71)	0.56 (0.51-0.62)	0.8 (0.73-0.88)
2014	0.64 (0.6-0.68)	0.57 (0.52-0.63)	0.77 (0.69-0.84)
2015	0.63 (0.59-0.68)	0.52 (0.47-0.57)	0.74 (0.67-0.81)
2016	0.68 (0.63-0.72)	0.59 (0.54-0.65)	0.77 (0.69-0.84)
2017	0.68 (0.64-0.73)	0.5 (0.45-0.55)	0.87 (0.8-0.95)
2018	0.68 (0.63-0.72)	0.55 (0.49-0.6)	0.79 (0.71-0.86)
2019	0.68 (0.64-0.72)	0.5 (0.45-0.55)	0.85 (0.78-0.92)
2020	0.81 (0.76-0.85)	0.66 (0.6-0.71)	1.01 (0.93-1.09)
2021	0.83 (0.79-0.88)	0.72 (0.66-0.78)	0.99 (0.91-1.07)
2022	0.77 (0.72-0.81)	0.64 (0.58-0.69)	0.94 (0.86-1.02)
2023	0.73 (0.69-0.78)	0.62 (0.56-0.67)	0.87 (0.79-0.94)

Supplemental Table 4: Polycythemia Vera–related Age-Adjusted Mortality Rates per 100,000, Stratified by Race in Adults in the United States, 1999 to 2023.

Year	NH White	NH Black or African American	NH Asian or Pacific Islander	NH American Indian or Alaska Native	Hispanic or Latino
1999	1.23 (1.15-1.3)	0.57 (0.41-0.76)	Missing	Missing	0.64 (0.41-0.94)
2000	1.27 (1.19-1.34)	0.62 (0.46-0.82)	Missing	Missing	0.48 (0.29-0.73)
2001	1.24 (1.16-1.32)	0.39 (0.26-0.55)	Missing	Missing	Missing
2002	1.08 (1.01-1.15)	0.67 (0.5-0.88)	Missing	Missing	0.54 (0.35-0.81)
2003	1.09 (1.02-1.16)	0.52 (0.37-0.71)	Missing	Missing	0.43 (0.27-0.66)
2004	1.1 (1.03-1.17)	0.46 (0.32-0.63)	Missing	Missing	0.44 (0.27-0.67)
2005	1.04 (0.97-1.11)	0.48 (0.34-0.65)	Missing	Missing	Missing
2006	0.99 (0.92-1.05)	0.38 (0.26-0.53)	Missing	Missing	0.47 (0.31-0.69)
2007	0.9 (0.84-0.96)	0.38 (0.26-0.54)	Missing	Missing	0.38 (0.24-0.57)
2008	0.93 (0.87-0.99)	0.31 (0.2-0.44)	Missing	Missing	Missing
2009	0.88 (0.82-0.94)	0.38 (0.26-0.54)	Missing	Missing	0.31 (0.19-0.48)
2010	0.86 (0.8-0.92)	0.37 (0.26-0.51)	Missing	Missing	0.36 (0.23-0.54)
2011	0.87 (0.81-0.93)	0.46 (0.33-0.61)	Missing	Missing	Missing
2012	0.78 (0.73-0.84)	0.36 (0.26-0.5)	Missing	Missing	0.28 (0.17-0.42)
2013	0.77 (0.71-0.82)	0.38 (0.27-0.52)	Missing	Missing	0.31 (0.2-0.45)
2014	0.72 (0.67-0.77)	0.42 (0.31-0.57)	Missing	Missing	0.31 (0.21-0.44)
2015	0.72 (0.67-0.78)	0.28 (0.19-0.4)	Missing	Missing	0.26 (0.17-0.39)
2016	0.75 (0.7-0.81)	0.29 (0.2-0.41)	0.48 (0.32-0.7)	Missing	0.29 (0.19-0.41)
2017	0.76 (0.71-0.81)	0.36 (0.26-0.49)	0.32 (0.2-0.49)	Missing	0.32 (0.22-0.44)
2018	0.77 (0.71-0.82)	0.34 (0.24-0.46)	Missing	Missing	0.31 (0.22-0.43)
2019	0.77 (0.72-0.82)	0.28 (0.19-0.38)	0.35 (0.22-0.52)	Missing	0.29 (0.2-0.4)
2020	0.94 (0.89-1)	0.46 (0.35-0.59)	0.43 (0.29-0.61)	Missing	0.34 (0.24-0.46)
2021	0.98 (0.92-1.04)	0.38 (0.28-0.51)	0.3 (0.19-0.47)	Missing	0.39 (0.29-0.51)
2022	0.91 (0.85-0.97)	0.46 (0.36-0.59)	0.3 (0.18-0.45)	Missing	0.33 (0.24-0.45)
2023	0.84 (0.79-0.9)	0.42 (0.32-0.54)	0.37 (0.24-0.54)	Missing	0.23 (0.16-0.33)

NH = non-Hispanic.

Supplemental Table 5: Polycythemia Vera–related Crude Mortality Rates per 100,000, Stratified by Age Group in Adults in the United States, 1999 to 2023.

Year	Age 45-64 Years	65+ Years
1999	0.19 (0.16-0.23)	2.8 (2.63-2.98)
2000	0.21 (0.17-0.25)	2.77 (2.6-2.95)
2001	0.17 (0.14-0.21)	2.69 (2.52-2.86)
2002	0.21 (0.17-0.24)	2.41 (2.25-2.57)
2003	0.21 (0.17-0.24)	2.4 (2.24-2.56)
2004	0.16 (0.13-0.19)	2.46 (2.29-2.62)
2005	0.16 (0.13-0.19)	2.3 (2.15-2.46)
2006	0.18 (0.15-0.22)	2.13 (1.99-2.28)
2007	0.18 (0.15-0.2)	1.99 (1.85-2.13)
2008	0.16 (0.13-0.19)	2.03 (1.89-2.17)
2009	0.16 (0.13-0.19)	1.89 (1.76-2.03)
2010	0.13 (0.11-0.16)	1.93 (1.8-2.07)
2011	0.15 (0.12-0.18)	1.87 (1.74-2.01)
2012	0.13 (0.1-0.15)	1.73 (1.61-1.86)
2013	0.15 (0.13-0.18)	1.61 (1.49-1.72)
2014	0.16 (0.14-0.19)	1.52 (1.4-1.63)
2015	0.13 (0.1-0.15)	1.5 (1.39-1.61)
2016	0.17 (0.14-0.2)	1.51 (1.4-1.62)
2017	0.13 (0.11-0.16)	1.58 (1.47-1.69)
2018	0.16 (0.13-0.19)	1.52 (1.41-1.63)
2019	0.16 (0.14-0.19)	1.5 (1.4-1.6)
2020	0.22 (0.19-0.25)	1.81 (1.7-1.93)
2021	0.2 (0.17-0.23)	1.84 (1.73-1.95)
2022	0.19 (0.16-0.22)	1.72 (1.62-1.83)
2023	0.18 (0.15-0.2)	1.58 (1.48-1.69)

Supplemental Table 6: Polycythemia Vera–related Age-Adjusted Mortality Rates per 100,000, Stratified by Census Region in Adults in the United States, 1999 to 2023.

Census Region	Year	Age-Adjusted Rate
Northeast	1999	1.18 (1.03-1.33)
Northeast	2000	1.19 (1.04-1.34)
Northeast	2001	1.01 (0.87-1.15)
Northeast	2002	1.05 (0.91-1.19)
Northeast	2003	0.93 (0.8-1.06)
Northeast	2004	0.97 (0.83-1.1)
Northeast	2005	0.94 (0.81-1.07)
Northeast	2006	0.9 (0.77-1.02)
Northeast	2007	0.68 (0.57-0.79)
Northeast	2008	0.8 (0.68-0.91)
Northeast	2009	0.88 (0.75-1)
Northeast	2010	0.82 (0.71-0.94)
Northeast	2011	0.89 (0.76-1.01)
Northeast	2012	0.79 (0.67-0.9)
Northeast	2013	0.68 (0.58-0.78)
Northeast	2014	0.65 (0.55-0.75)
Northeast	2015	0.71 (0.6-0.82)
Northeast	2016	0.66 (0.55-0.77)
Northeast	2017	0.75 (0.65-0.86)
Northeast	2018	0.68 (0.58-0.78)
Northeast	2019	0.63 (0.53-0.72)
Northeast	2020	0.8 (0.7-0.91)
Northeast	2021	0.79 (0.68-0.89)
Northeast	2022	0.71 (0.61-0.82)
Northeast	2023	0.71 (0.6-0.81)
Midwest	1999	1.27 (1.12-1.42)
Midwest	2000	1.35 (1.2-1.51)
Midwest	2001	1.3 (1.15-1.45)
Midwest	2002	1.12 (0.98-1.26)
Midwest	2003	1.17 (1.03-1.31)
Midwest	2004	1.2 (1.06-1.34)

Midwest	2005	1.01 (0.88-1.13)
Midwest	2006	1.02 (0.89-1.15)
Midwest	2007	1.05 (0.93-1.18)
Midwest	2008	0.88 (0.77-1)
Midwest	2009	1.05 (0.92-1.17)
Midwest	2010	0.92 (0.8-1.03)
Midwest	2011	0.86 (0.75-0.98)
Midwest	2012	0.89 (0.77-1)
Midwest	2013	0.81 (0.7-0.91)
Midwest	2014	0.78 (0.68-0.89)
Midwest	2015	0.75 (0.65-0.85)
Midwest	2016	0.71 (0.61-0.81)
Midwest	2017	0.77 (0.67-0.87)
Midwest	2018	0.79 (0.69-0.89)
Midwest	2019	0.72 (0.63-0.82)
Midwest	2020	0.89 (0.78-1)
Midwest	2021	0.9 (0.79-1)
Midwest	2022	0.81 (0.71-0.9)
Midwest	2023	0.69 (0.6-0.78)
South	1999	1 (0.89-1.1)
South	2000	0.94 (0.84-1.04)
South	2001	0.92 (0.82-1.03)
South	2002	0.87 (0.78-0.97)
South	2003	0.87 (0.77-0.97)
South	2004	0.83 (0.74-0.93)
South	2005	0.76 (0.67-0.85)
South	2006	0.76 (0.67-0.85)
South	2007	0.69 (0.61-0.77)
South	2008	0.66 (0.58-0.74)
South	2009	0.58 (0.5-0.65)
South	2010	0.67 (0.59-0.75)
South	2011	0.58 (0.51-0.65)
South	2012	0.56 (0.49-0.63)
South	2013	0.5 (0.44-0.57)
South	2014	0.51 (0.44-0.57)
South	2015	0.48 (0.42-0.54)
South	2016	0.57 (0.5-0.64)

South	2017	0.51 (0.45-0.58)
South	2018	0.55 (0.49-0.62)
South	2019	0.57 (0.5-0.63)
South	2020	0.7 (0.63-0.77)
South	2021	0.72 (0.64-0.79)
South	2022	0.71 (0.64-0.78)
South	2023	0.64 (0.58-0.71)
West	1999	1.29 (1.13-1.46)
West	2000	1.18 (1.02-1.33)
West	2001	1.27 (1.11-1.43)
West	2002	1.08 (0.94-1.22)
West	2003	1.08 (0.93-1.22)
West	2004	1.03 (0.89-1.17)
West	2005	1.12 (0.97-1.26)
West	2006	0.89 (0.77-1.02)
West	2007	0.94 (0.81-1.07)
West	2008	1.01 (0.88-1.14)
West	2009	0.78 (0.67-0.9)
West	2010	0.82 (0.71-0.94)
West	2011	0.83 (0.72-0.94)
West	2012	0.75 (0.64-0.85)
West	2013	0.72 (0.62-0.82)
West	2014	0.74 (0.64-0.85)
West	2015	0.72 (0.62-0.82)
West	2016	0.85 (0.74-0.95)
West	2017	0.78 (0.67-0.88)
West	2018	0.72 (0.63-0.82)
West	2019	0.78 (0.68-0.87)
West	2020	0.92 (0.82-1.03)
West	2021	1.04 (0.92-1.15)
West	2022	0.91 (0.81-1.02)
West	2023	0.89 (0.79-0.99)

Supplemental Table 7: Polycythemia Vera–related Mortality, Stratified by Place of Death in Adults in the United States, 1999 to 2023.

Place of Death	Deaths
Medical Facility - Inpatient	8,181
Medical Facility - Outpatient or ER	1,230
Medical Facility - Dead on Arrival	105
Medical Facility - Status unknown	21
Decedent's home	8,264
Hospice facility	939
Nursing home/long-term care	4,469
Other	971
Place of death unknown	48
Total	24,228

Supplemental Table 8: Polycythemia Vera–related Age-Adjusted Mortality Rates per 100,000, Stratified by Urban-Rural Classification in Adults in the United States, 1999 to 2020.

Year	Metropolitan	Non-metropolitan
1999	1.15 (1.07-1.22)	1.09 (0.94-1.24)
2000	1.12 (1.05-1.2)	1.29 (1.12-1.45)
2001	1.12 (1.04-1.19)	1.13 (0.97-1.29)
2002	1 (0.93-1.07)	1.12 (0.97-1.27)
2003	1.01 (0.94-1.07)	1.06 (0.91-1.21)
2004	1.01 (0.94-1.08)	0.96 (0.82-1.1)
2005	0.9 (0.84-0.96)	0.99 (0.85-1.13)
2006	0.85 (0.79-0.91)	1.04 (0.89-1.18)
2007	0.8 (0.74-0.86)	0.98 (0.84-1.12)
2008	0.83 (0.77-0.89)	0.85 (0.72-0.98)
2009	0.76 (0.7-0.82)	0.93 (0.8-1.06)
2010	0.76 (0.7-0.82)	0.86 (0.73-0.99)
2011	0.73 (0.67-0.78)	0.91 (0.78-1.04)
2012	0.7 (0.65-0.76)	0.74 (0.62-0.86)
2013	0.67 (0.62-0.73)	0.77 (0.65-0.89)
2014	0.63 (0.58-0.67)	0.76 (0.64-0.87)
2015	0.6 (0.55-0.65)	0.72 (0.6-0.83)
2016	0.64 (0.59-0.69)	0.79 (0.67-0.9)
2017	0.67 (0.62-0.72)	0.76 (0.65-0.88)
2018	0.65 (0.6-0.7)	0.79 (0.68-0.9)
2019	0.66 (0.62-0.71)	0.81 (0.69-0.93)
2020	0.78 (0.73-0.83)	0.98 (0.86-1.11)