



WEST VIRGINIA TUBERCULOSIS PROFILE

ANNUAL REPORT 2020

**WEST VIRGINIA DEPARTMENT OF HEALTH AND HUMAN RESOURCES
BUREAU FOR PUBLIC HEALTH
DIVISION OF TUBERCULOSIS ELIMINATION**

Telephone

(304) 558-3669

Toll-free in West Virginia

(800) 330-8126

Fax

(304) 558-1825

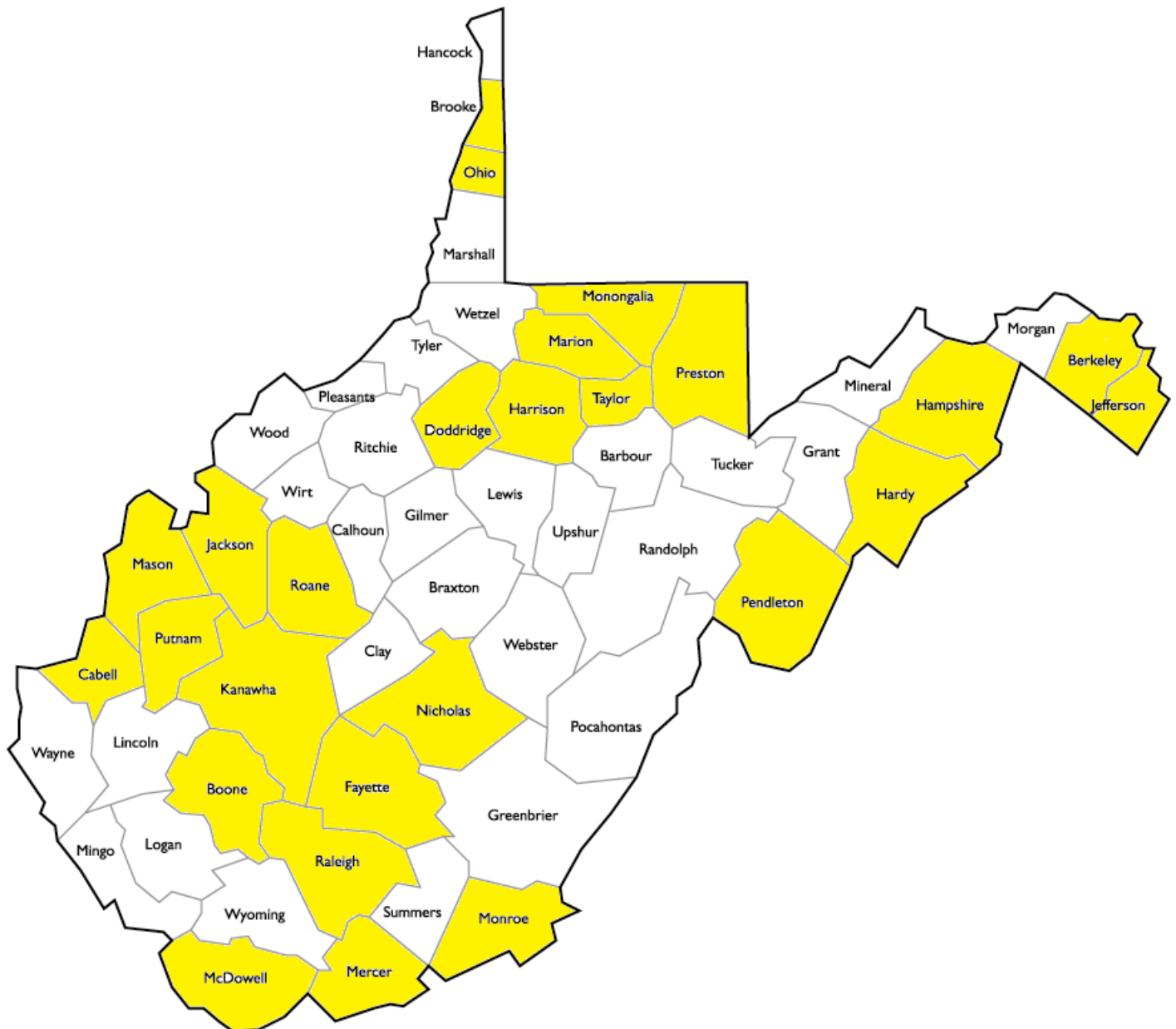
Website

oeeps.wv.gov/tuberculosis

Staff

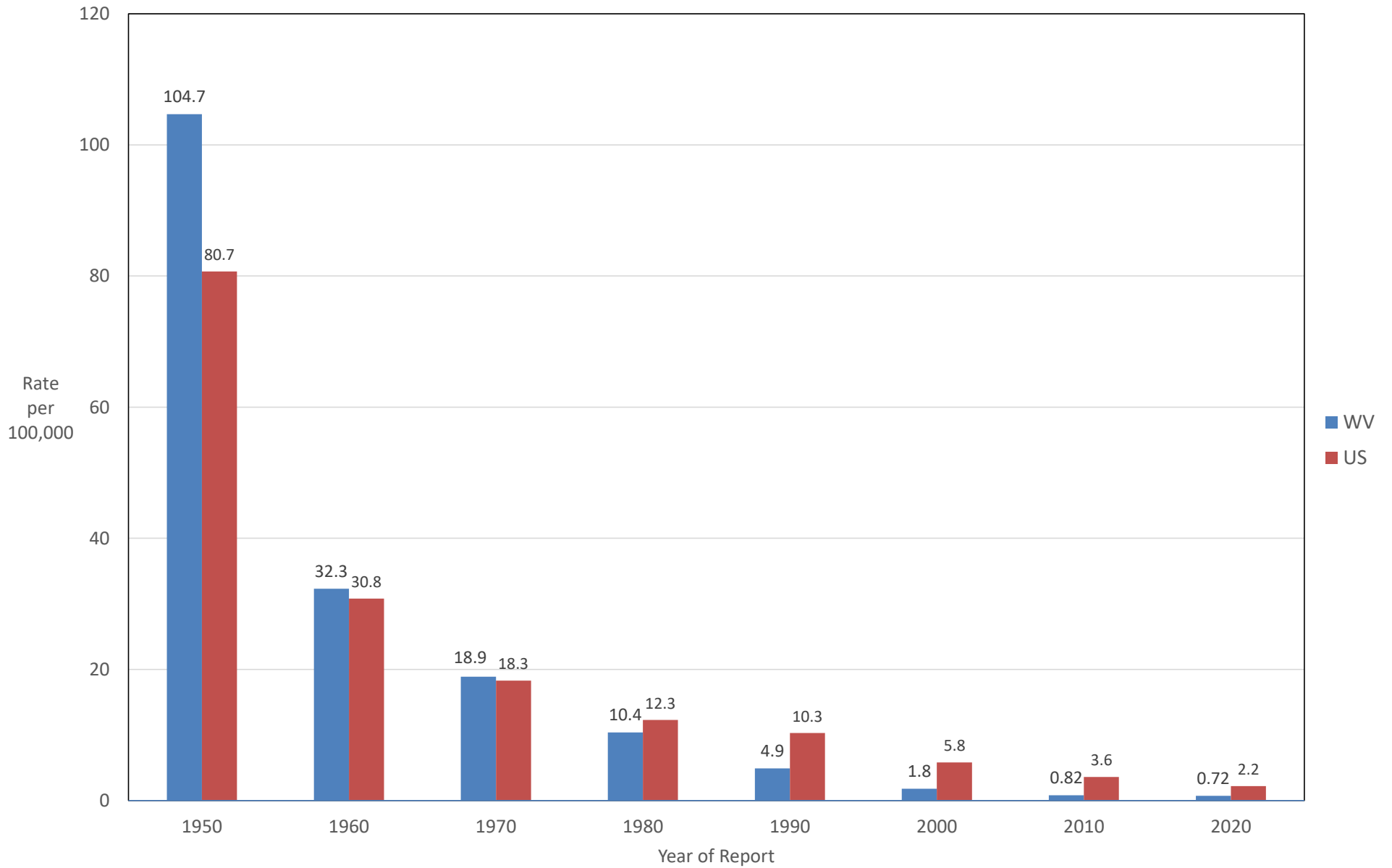
Sandra Y. Elliott, M.D. Medical Director	(304) 558-3669
Suzanne Wilson, MPH Program Director	(304) 558-3669
Stephanie McLemore, R.N. Surveillance Nurse	(304) 352-6256
Doug Fields Health and Human Resources Specialist	(304) 352-6257
Aletha Helm Secretary	(304) 558-3669

WV Active Tuberculosis Cases by County, 2016-2020

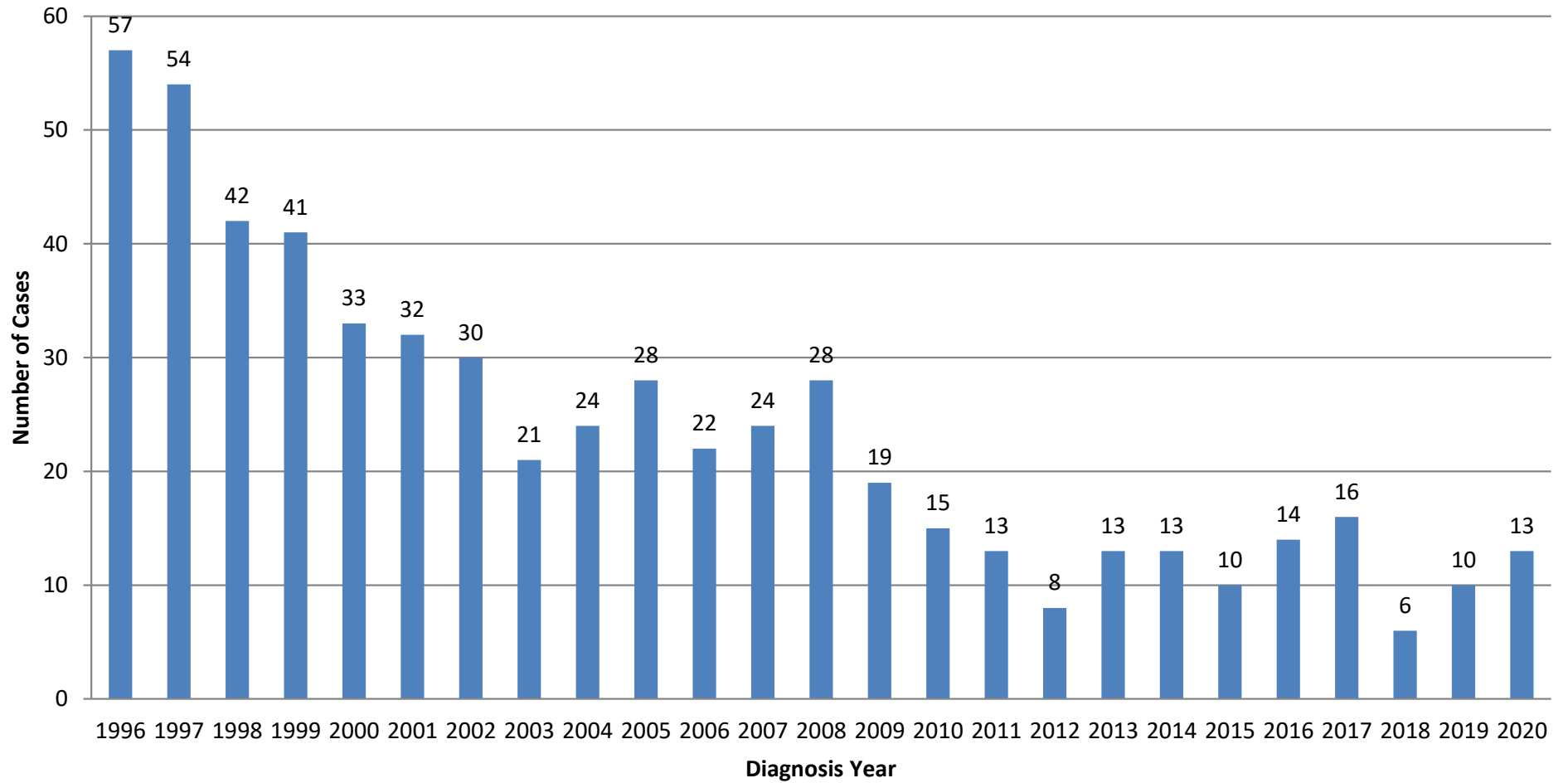


Each highlighted county may have one or multiple cases for the 2016-2020 period. This map is intended to show the geographic area of the cases only for the five-year period.

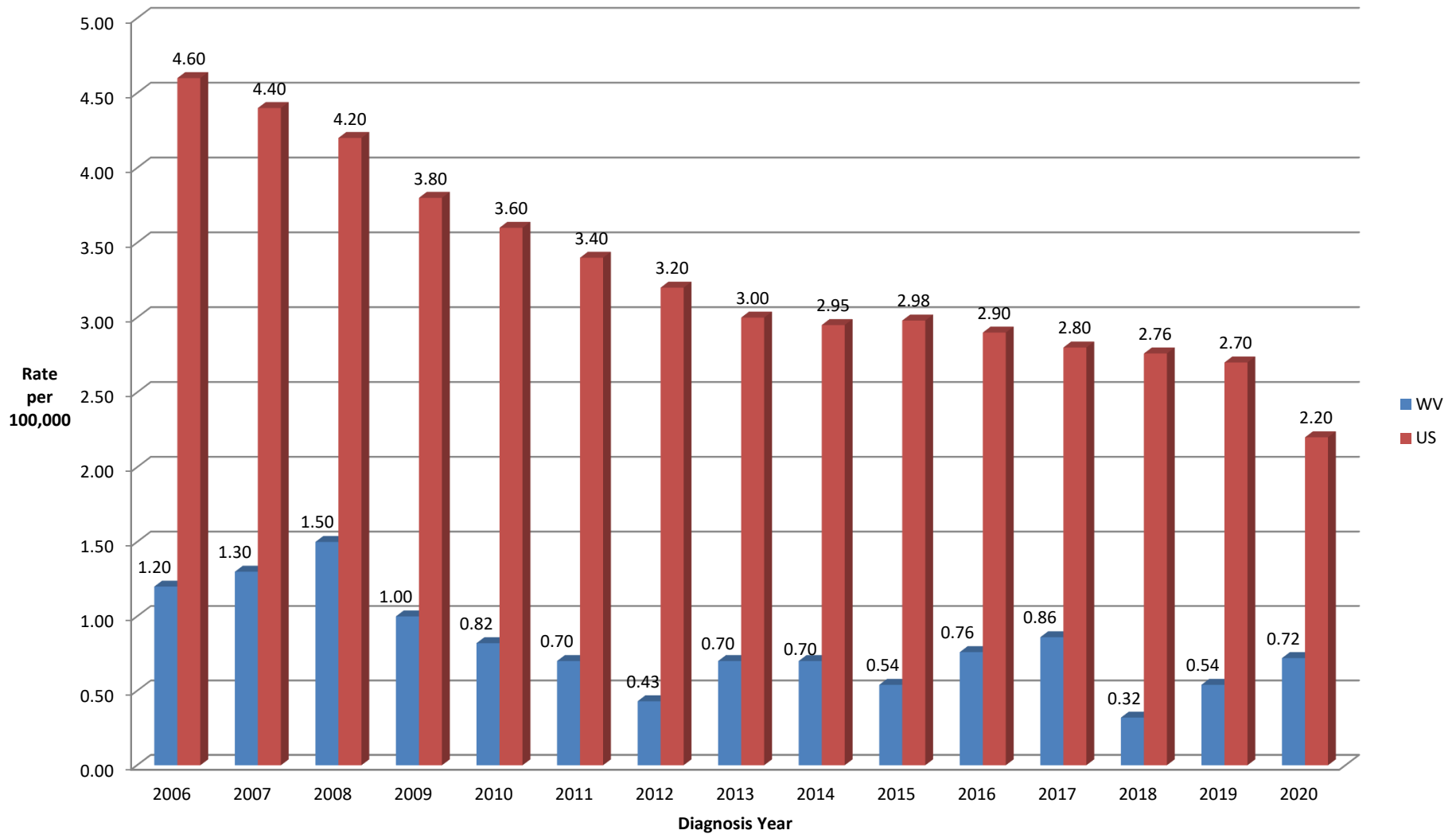
TB Incidence Rate by Year of Report WV and US Decennial Rates, 1950-2020



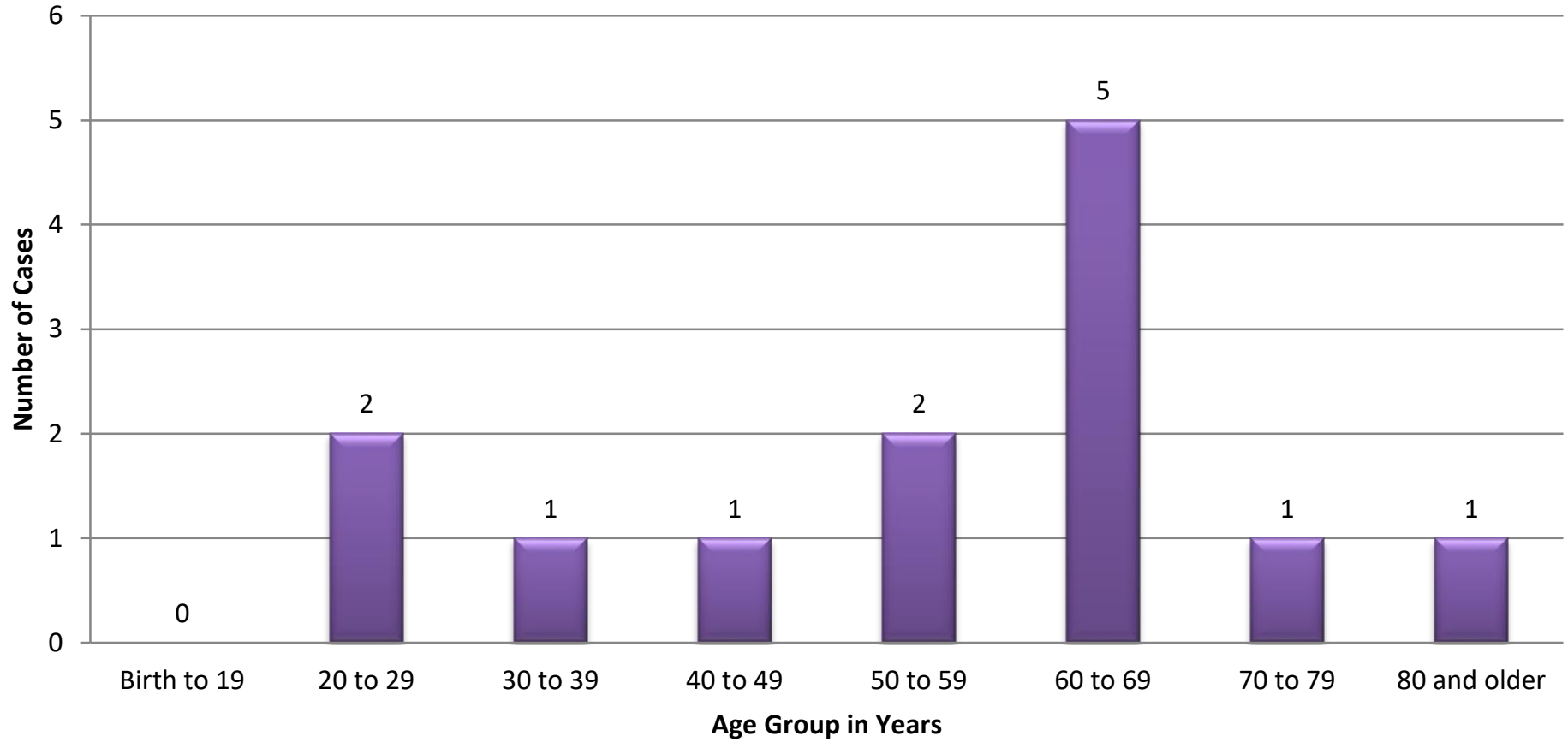
Newly Diagnosed Active TB Cases in WV by Year of Diagnosis 1996-2020



TB Incidence Rates by Diagnosis Year, WV and US 2006-2020



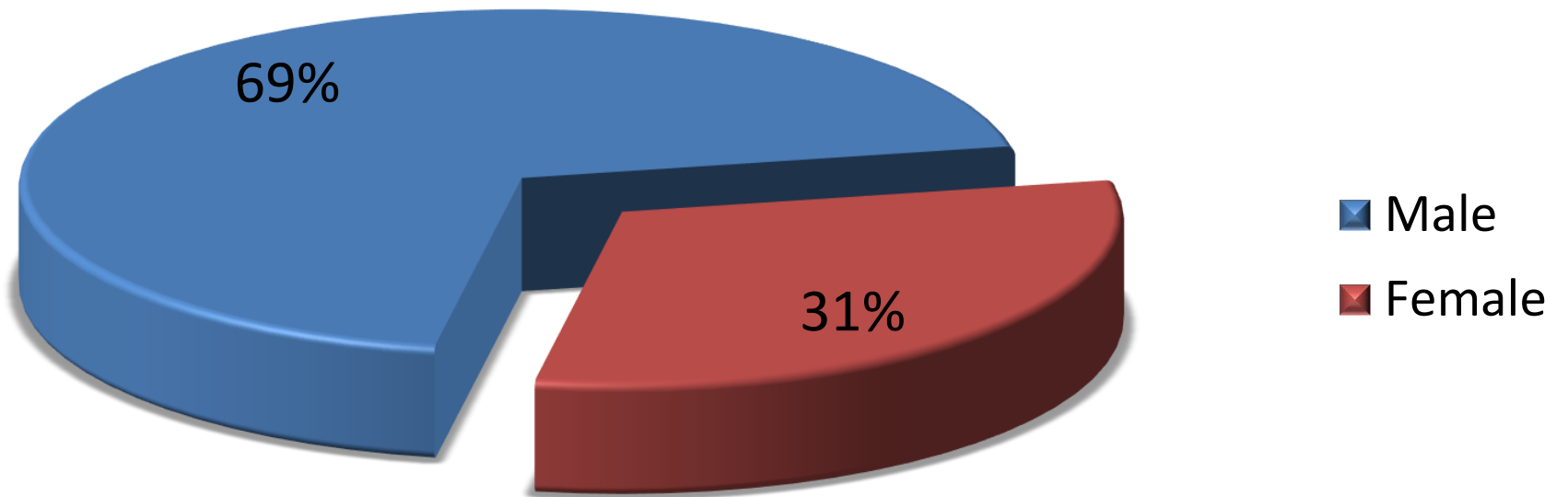
WV Cases of Active TB by Age Group - 2020



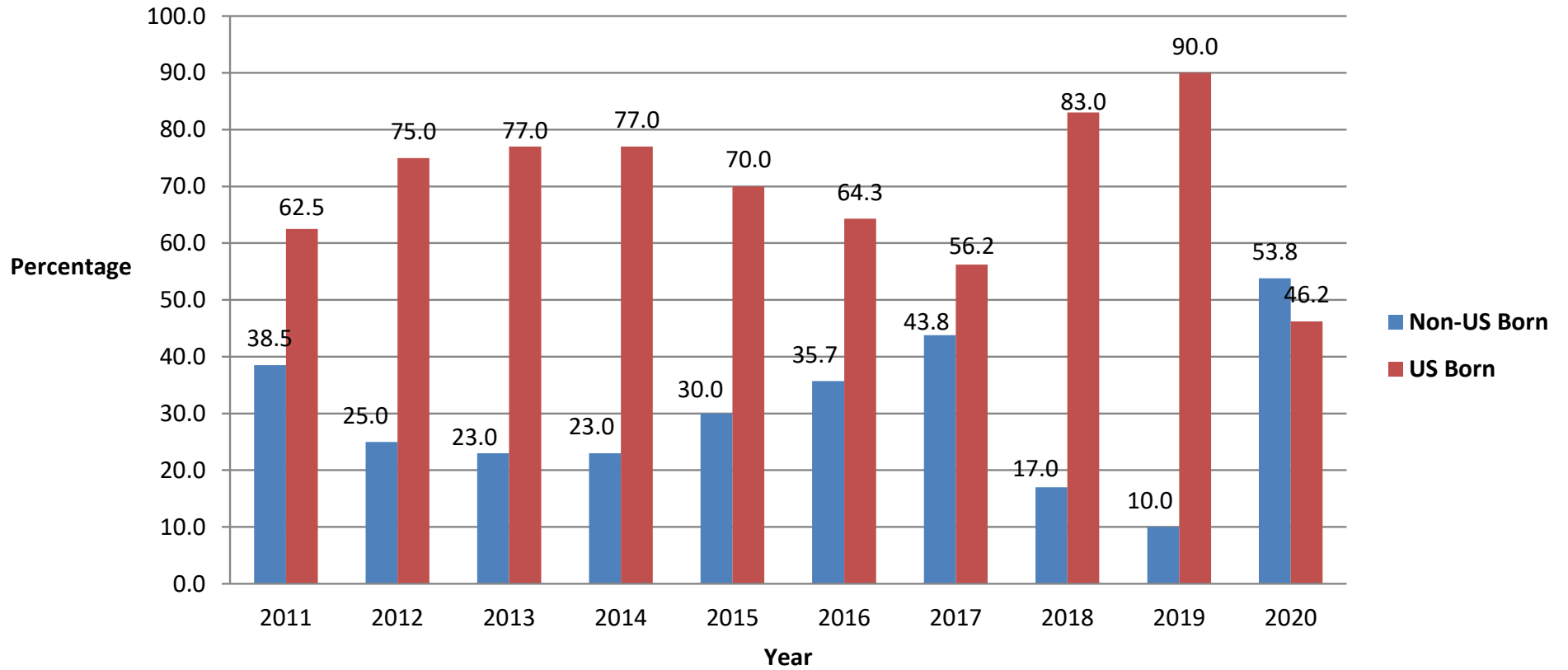
WV TB Active Cases by Country of Origin - 2020



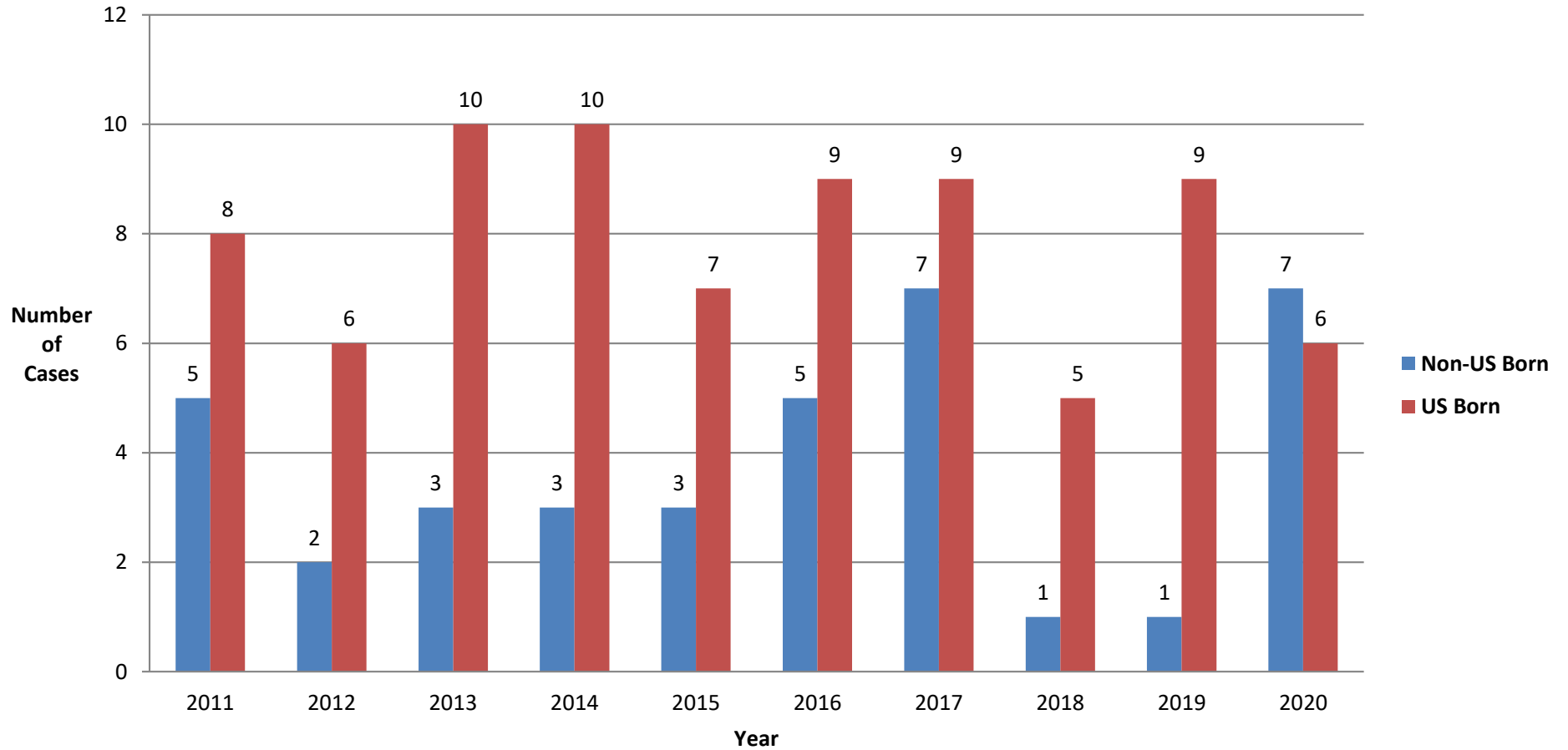
Gender of WV Active TB Cases - 2020



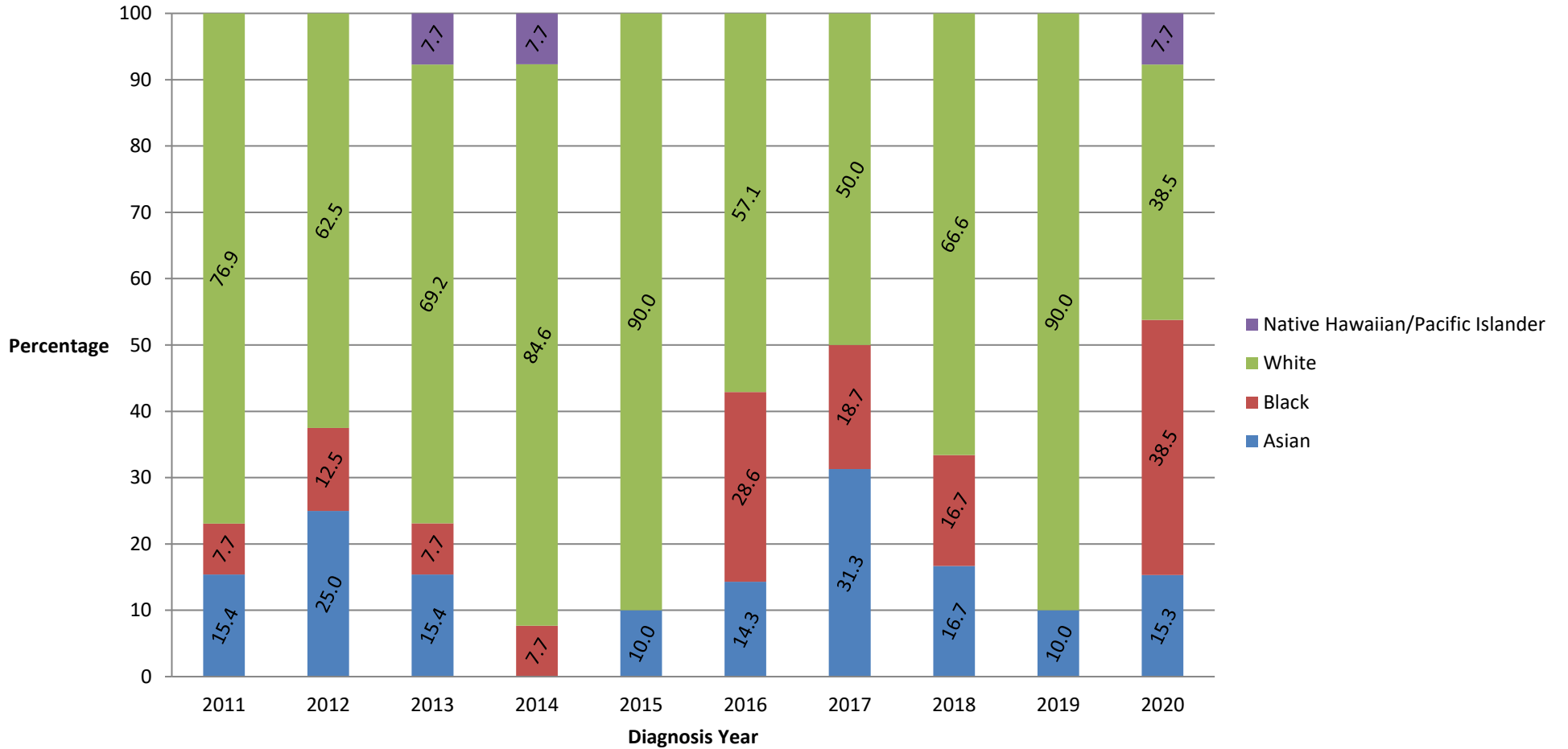
Percentage of WV Active TB Cases Non-US Born vs. US Born 2011-2020



Number of WV Active TB Cases Non-US Born vs. US Born 2011-2020



Race of WV Active TB Cases by Diagnosis Year 2011-2020



**Reported Risk Factors and Occupations
WV TB Cases, 2020**

<u>RISK FACTOR</u>	<u>Percentage of 2020 Cases</u>
Injected Drug Use	0.00%
Non-Injected Drug Use	0.00%
Excessive Alcohol Use	7.70%
Homeless in Past Year	0.00%
Resident of Long-Term Care Facility at Diagnosis	7.70%
Resident of Correctional Facility at Diagnosis	0.00%

OCCUPATION

<u>CLASSIFICATION</u>	<u>NUMBER</u>	<u>PERCENT</u>
Healthcare Worker	0	0.00%
Correctional Employee	0	0.00%
Migratory Agricultural Worker	0	0.00%
Other Occupation	6	46.15%
Retired	2	15.38%
Not Seeking Employment (e.g., student, etc.)	1	7.69%
Not Employed Within Past 12 Months	4	30.77%
Unknown/Missing	0	0.00%
TOTAL	13	100.00%

SURVEILLANCE CLINICAL DATA
 For the Month - Year Counted
 Beginning 1/2020 and Ending 12/2020

Reporting Area: West Virginia Department of Health and Human Resources,
 Bureau for Public Health - All Counties

STATUS AT DIAGNOSIS OF TB

CLASSIFICATION	NUMBER OF RECORDS	PERCENT
Alive	13	100.00%
Dead	0	0.00%
Unknown/Missing	0	0.00%
TOTAL	13	100.00%

PREVIOUS DIAGNOSIS OF TB

CLASSIFICATION	NUMBER OF RECORDS	PERCENT
No	13	100.00%
Yes	0	0.00%
Unknown/Missing	0	0.00%
TOTAL	13	100.00%

SITE OF DISEASE

CLASSIFICATION	NUMBER OF RECORDS	PERCENT
Pulmonary	10	76.92%
Extrapulmonary	2	15.38%
Both	1	7.69%
Site Not Stated/Missing	0	0.00%
TOTAL	13	100.00%

SPUTUM SMEAR

CLASSIFICATION	NUMBER OF RECORDS	PERCENT
Positive	7	53.85%
Negative	4	30.77%
Not Done	2	15.38%
Unknown/Missing	0	0.00%
TOTAL	13	100.00%

SURVEILLANCE CLINICAL DATA
 For the Month - Year Counted
 Beginning 1/2020 and Ending 12/2020
 (continued)

SPUTUM CULTURE

CLASSIFICATION	NUMBER OF RECORDS	PERCENT
Positive	9	69.23%
Negative	2	15.38%
Not Done	2	15.38%
Unknown/Missing	0	0.00%
TOTAL	13	100.00%

MICROSCOPIC EXAM OF TISSUE AND OTHER BODY FLUIDS

CLASSIFICATION	NUMBER OF RECORDS	PERCENT
Positive	2	15.38%
Negative	0	0.00%
Not Done	11	84.62%
Unknown/Missing	0	0.00%
TOTAL	13	100.00%

CULTURE OF TISSUE AND OTHER BODY FLUIDS

CLASSIFICATION	NUMBER OF RECORDS	PERCENT
Positive	2	15.38%
Negative	0	0.00%
Not Done	11	84.62%
Unknown/Missing	0	0.00%
TOTAL	13	100.00%

CHEST X-RAY

CLASSIFICATION	NUMBER OF RECORDS	PERCENT
Normal	2	15.38%
Abnormal	9	69.23%
Not Done/Unknown/Missing	2	15.38%
TOTAL	13	100.00%

SURVEILLANCE CLINICAL DATA
 For the Month - Year Counted
 Beginning 1/2020 and Ending 12/2020
 (continued)

TUBERCULIN (MANTOUX) SKIN TEST AT DIAGNOSIS

CLASSIFICATION	NUMBER OF RECORDS	PERCENT
Positive	1	7.69%
Negative	0	0.00%
Not Done	12	92.31%
Unknown	0	0.00%
Missing	0	0.00%
TOTAL	13	100.00%

HIV STATUS

CLASSIFICATION	NUMBER OF RECORDS	PERCENT
Negative	13	100.00%
Positive	0	0.00%
Indeterminate	0	0.00%
Refused	0	0.00%
Not Offered	0	0.00%
Test Done, Results Unknown	0	0.00%
Unknown	0	0.00%
Missing	0	0.00%
TOTAL	13	100.00%

INITIAL DRUG REGIMEN

CLASSIFICATION	NUMBER OF RECORDS	PERCENT
No Drugs	0	0.00%
One Drug	0	0.00%
INH, RIF, PZA, and EMB or SM	13	100.00%
INH, RIF, and PZA	0	0.00%
INH and RIF	0	0.00%
Any other Multiple Drug Combination	0	0.00%
Unknown	0	0.00%
TOTAL	13	100.00%

**NEWLY REPORTED VERIFIED CASES OF TUBERCULOSIS IN WEST VIRGINIA, 2014-2020
INCIDENCE RATES (I-RATE) ARE SHOWN PER 100,000 RESIDENTS**

COUNTY	POPULATION 2010 CENSUS	2014 I-RATE	2015 I-RATE	2016 I-RATE	2017 I-RATE	2018 I-RATE	2019 I-RATE	2020 I-RATE
Barbour	16,589	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Berkeley	104,169	0.96	0.00	2.88	0.96	0.00	0.00	1.92
Boone	24,629	4.06	4.06	0.00	4.06	0.00	0.00	4.06
Braxton	14,523	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Brooke	24,069	0.00	0.00	0.00	0.00	4.15	0.00	0.00
Cabell	96,319	2.08	0.00	6.23	1.04	0.00	1.04	2.08
Calhoun	7,627	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Clay	9,386	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Doddridge	8,202	24.38	0.00	12.19	0.00	0.00	0.00	0.00
Fayette	46,039	0.00	0.00	0.00	0.00	2.17	0.00	0.00
Gilmer	8,693	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grant	11,937	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Greenbrier	35,480	2.82	0.00	0.00	0.00	0.00	0.00	0.00
Hampshire	23,964	0.00	0.00	0.00	4.17	0.00	0.00	0.00
Hancock	30,676	0.00	3.26	0.00	0.00	0.00	0.00	0.00
Hardy	14,025	0.00	0.00	0.00	7.13	0.00	0.00	0.00
Harrison	69,099	0.00	1.45	0.00	0.00	1.45	0.00	0.00
Jackson	29,211	0.00	0.00	0.00	0.00	3.42	0.00	0.00
Jefferson	53,498	0.00	0.00	1.87	0.00	0.00	0.00	1.87
Kanawha	193,063	1.04	1.55	0.00	0.52	0.00	0.52	1.04
Lewis	16,372	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lincoln	21,270	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Logan	36,743	2.72	0.00	0.00	0.00	0.00	0.00	0.00
Marion	56,418	0.00	0.00	0.00	0.00	0.00	1.77	0.00
Marshall	33,107	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mason	27,324	3.66	0.00	0.00	0.00	3.66	0.00	0.00
McDowell	22,113	0.00	0.00	0.00	0.00	0.00	9.04	0.00
Mercer	62,264	1.61	0.00	0.00	0.00	1.61	0.00	0.00
Mineral	28,212	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mingo	26,839	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Monongalia	96,189	0.00	1.04	1.04	2.08	0.00	2.08	4.16
Monroe	13,502	0.00	0.00	0.00	7.41	0.00	0.00	0.00
Morgan	17,541	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nicholas	26,233	0.00	0.00	0.00	0.00	0.00	0.00	3.81
Ohio	44,443	0.00	0.00	0.00	2.25	0.00	2.25	0.00
Pendleton	7,695	0.00	0.00	0.00	0.00	0.00	13.00	0.00
Pleasants	7,605	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pocahontas	8,719	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Preston	33,520	0.00	0.00	0.00	2.98	0.00	0.00	0.00

NEWLY REPORTED VERIFIED CASES OF TUBERCULOSIS IN WEST VIRGINIA, 2014-2020
INCIDENCE RATES (I-RATE) ARE SHOWN PER 100,000 RESIDENTS

COUNTY	POPULATION 2010 CENSUS	2014 I-RATE	2015 I-RATE	2016 I-RATE	2017 I-RATE	2018 I-RATE	2019 I-RATE	2020 I-RATE
Putnam	55,486	0.00	3.60	0.00	5.41	0.00	0.00	0.00
Raleigh	78,859	0.00	0.00	1.27	1.27	0.00	1.27	0.00
Randolph	29,405	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ritchie	10,449	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Roane	14,926	0.00	0.00	0.00	6.70	0.00	0.00	0.00
Summers	13,927	0.00	7.18	0.00	0.00	0.00	0.00	0.00
Taylor	16,895	0.00	0.00	5.92	0.00	0.00	0.00	0.00
Tucker	7,141	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tyler	9,208	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Upshur	24,254	4.12	0.00	0.00	0.00	0.00	0.00	0.00
Wayne	42,481	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Webster	7,154	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wetzel	16,583	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wirt	5,717	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood	86,956	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wyoming	23,796	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	1,852,994							
I-Rate for WV		0.70	0.54	0.76	0.86	0.32	0.54	0.70

Latent Tuberculosis Infection and LTBI Incidence/100,000 Population by County, 2016-2020

COUNTY	POPULATION 2010 CENSUS	2016 LTBI	2016 Rate	2017 LTBI	2017 Rate	2018 LTBI	2018 Rate	2019 LTBI	2019 Rate	2020 LTBI	2020 Rate
Barbour	16,589	1	6.03	2	0.00	3	18.08	5	30.14	0	0.00
Berkeley	104,169	8	7.68	9	7.68	23	22.08	26	24.96	2	1.92
Boone	24,629	0	0.00	2	0.00	3	12.18	3	12.18	0	0.00
Braxton	14,523	0	0.00	2	0.00	2	13.77	0	0.00	0	0.00
Brooke	24,069	0	0.00	0	0.00	3	12.46	7	29.08	0	0.00
Cabell	96,319	55	57.10	32	70.60	21	21.80	54	56.06	7	7.27
Calhoun	7,627	0	0.00	0	0.00	0	0.00	2	26.22	0	0.00
Clay	9,386	0	0.00	0	0.00	0	0.00	1	10.65	0	0.00
Doddridge	8,202	2	24.38	0	0.00	2	24.38	1	12.19	0	0.00
Fayette	46,039	0	0.00	2	0.00	0	0.00	7	15.20	0	0.00
Gilmer	8,693	0	0.00	0	0.00	0	0.00	1	11.50	0	0.00
Grant	11,937	0	0.00	1	0.00	1	8.38	1	8.38	0	0.00
Greenbrier	35,480	3	8.46	3	2.82	6	16.91	4	11.27	22	62.01
Hampshire	23,964	0	0.00	2	0.00	2	8.35	0	0.00	0	0.00
Hancock	30,676	1	3.26	2	3.26	2	6.52	3	9.78	0	0.00
Hardy	14,025	10	71.30	24	114.08	9	64.17	4	28.52	7	49.91
Harrison	69,099	8	11.58	5	2.89	9	13.02	8	11.58	1	1.45
Jackson	29,211	0	0.00	1	0.00	1	3.42	3	10.27	0	0.00
Jefferson	53,498	2	3.74	3	20.56	5	9.35	11	20.56	0	0.00
Kanawha	193,063	10	5.18	24	8.29	33	17.09	43	22.27	19	9.84
Lewis	16,372	3	18.32	1	6.11	4	24.43	5	30.54	0	0.00
Lincoln	21,720	0	0.00	0	0.00	0	0.00	1	4.60	0	0.00
Logan	36,743	15	40.82	3	19.05	7	19.05	5	13.61	1	2.72
Marion	56,418	1	1.77	0	3.54	6	10.63	5	8.86	1	1.77
Marshall	33,107	1	3.02	0	0.00	1	3.02	6	18.12	0	0.00
Mason	27,324	0	0.00	0	0.00	2	7.32	3	10.98	0	0.00
McDowell	22,113	0	0.00	0	0.00	1	4.52	7	31.66	1	4.52
Mercer	62,264	1	1.61	0	0.00	11	17.67	8	12.85	0	0.00
Mineral	28,212	0	0.00	0	0.00	3	10.63	2	7.09	0	0.00
Mingo	26,839	0	0.00	1	3.73	2	7.45	1	3.73	1	3.73
Monongalia	96,189	9	9.36	33	21.83	41	42.62	22	22.87	17	17.67
Monroe	13,502	1	7.41	0	7.41	1	7.41	0	0.00	0	0.00
Morgan	17,541	0	0.00	1	0.00	0	0.00	0	0.00	0	0.00
Nicholas	26,233	0	0.00	1	0.00	4	15.25	1	3.81	0	0.00
Ohio	44,443	1	2.25	1	2.25	2	4.50	5	11.25	0	0.00
Pendleton	7,695	0	0.00	0	0.00	1	13.00	0	0.00	0	0.00
Pleasants	7,605	0	0.00	0	0.00	0	0.00	1	13.15	0	0.00
Pocahontas	8,719	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Preston	33,520	0	0.00	0	0.00	3	8.95	3	8.95	0	0.00
Putnam	55,486	1	1.80	0	1.80	5	9.01	3	5.41	0	0.00
Raleigh	78,859	9	11.41	11	29.17	16	20.29	25	31.70	6	7.61
Randolph	29,405	0	0.00	1	10.20	2	6.80	1	3.40	0	0.00
Ritchie	10,449	0	0.00	2	0.00	1	9.57	1	9.57	1	9.57
Roane	14,926	0	0.00	1	0.00	0	0.00	1	6.70	0	0.00
Summers	13,927	0	0.00	0	0.00	2	14.36	1	7.18	0	0.00
Taylor	16,895	0	0.00	0	0.00	4	23.68	3	17.76	0	0.00
Tucker	7,141	0	0.00	0	0.00	1	14.00	0	0.00	0	0.00
Upshur	24,254	0	0.00	1	8.25	1	4.12	1	4.12	1	4.12
Wayne	42,481	0	0.00	0	0.00	2	4.71	2	4.71	0	0.00
Webster	7,154	0	0.00	0	0.00	1	13.98	0	0.00	0	0.00
Wetzel-Tyler	25,791	1	3.88	0	0.00	3	11.63	4	15.51	0	0.00
Wirt	5,717	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Wood	86,956	1	1.15	1	3.45	8	9.20	8	9.20	0	0.00
Wyoming	23,796	2	8.40	3	0.00	1	4.20	1	4.20	0	0.00
TOTAL	1,852,994	146	7.88	175	9.44	261	14.09	310	16.73	87	4.70

**TUBERCULOSIS IN WEST VIRGINIA AND THE US
1980-2020**

<u>YEAR</u>	<u># WV CASES</u>	<u>WV CASE RATE Per 100,000</u>	<u># US CASES</u>	<u>US CASE RATE Per 100,000</u>
2020	13	.70	7,163	2.2
2019	10	.54	8,920	2.7
2018	6	.32	9,029	2.76
2017	16	.86	9,093	2.8
2016	14	.76	9,287	2.9
2015	10	.54	9,563	2.98
2014	13	.70	9,412	2.95
2013	13	.70	9,588	3.0
2012	8	.43	9,951	3.2
2011	13	.70	10,521	3.4
2010	15	.82	11,181	3.6
2009	19	1.0	11,540	3.8
2008	28	1.5	12,898	4.2
2007	24	1.3	13,293	4.4
2006	22	1.2	13,779	4.6
2005	28	1.6	14,093	4.8
2004	24	1.3	14,511	4.9
2003	21	1.2	14,874	5.1
2002	30	1.7	15,075	5.2
2001	32	1.8	15,989	5.6
2000	33	1.8	16,377	5.8

**TUBERCULOSIS IN WEST VIRGINIA AND THE US
1980-2020
(Continued)**

<u>YEAR</u>	<u># WV CASES</u>	<u>WV CASE RATE Per 100,000</u>	<u># US CASES</u>	<u>US CASE RATE Per 100,000</u>
1999	41	2.3	17,531	6.4
1998	42	2.3	18,361	6.8
1997	54	3.0	19,851	7.4
1996	57	3.2	21,337	8.0
1995	71	3.9	22,860	8.7
1994	80	4.4	24,361	9.4
1993	75	4.1	25,287	9.8
1992	92	5.1	26,673	10.5
1991	64	3.6	26,283	10.4
1990	87	4.9	25,701	10.3
1989	77	4.1	23,495	9.5
1988	68	3.6	22,436	9.2
1987	99	5.2	22,517	9.3
1986	124	6.5	22,768	9.5
1985	108	5.6	22,201	9.3
1984	133	6.8	22,255	9.4
1983	133	6.8	23,846	10.2
1982	162	8.3	25,520	11.0
1981	181	9.3	27,373	11.9
1980	203	10.4	27,749	12.2

**TUBERCULOSIS DRUG RESISTANCE IN WV
2000 TO 2020**

<u>YEAR</u>	<u>MONO</u>	<u>MDR</u>	<u>2 OTHER</u>
2020	0	0	0
2019	0	0	0
2018	0	0	0
2017	2	0	0
2016	1	0	0
2015	1	0	0
2014	2	0	0
2013	4	0	0
2012	2	0	0
2011	1	0	0
2010	1	0	1
2009	3	0	0
2008	0	0	0
2007	1	0	1
2006	2	0	0
2005	3	0	0
2004	3	0	0
2003	0	0	1
2002	2	0	1
2001	5	0	0
2000	4	0	2