



Pan American Health Organization



*Regional Office of the
World Health Organization*

MALARIA IN THE AMERICAS:

Time Series Epidemiological Data
from 2000 to 2007

Regional and Country Data

(for easy access to each, use PDF bookmarks)

1. Americas
2. Argentina
3. Belize
4. Bolivia
5. Brazil
6. Colombia
7. Costa Rica
8. Dominican Republic
9. Ecuador
10. El Salvador
11. French Guiana
12. Guatemala
13. Guyana
14. Haiti
15. Honduras
16. Mexico
17. Nicaragua
18. Panama
19. Paraguay
20. Peru
21. Suriname
22. Venezuela



What kind of data each section contains

I. Populations at risk

II. Malaria morbidity

III. Malarimetric indices (API, AVI, AFI)

API: Number of cases per thousand population at risk

AVI: Number of *P. vivax* cases per thousand population at risk

AFI: Number of *P. falciparum* cases per thousand population at risk

IV. Malaria microscopy

V. Slide positivity rate (SPR)

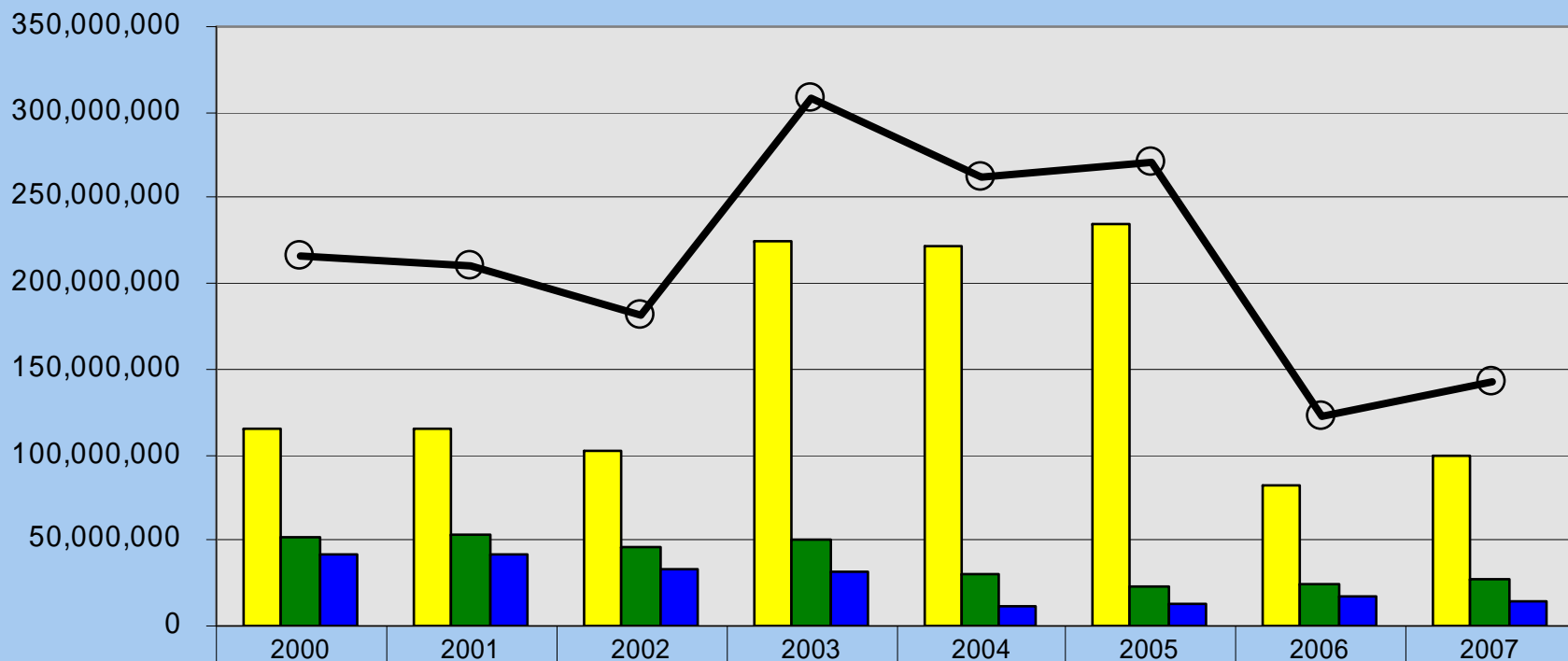
SPR: Percentage of examined blood smears positive





VI. Malaria mortality

AMERICAS

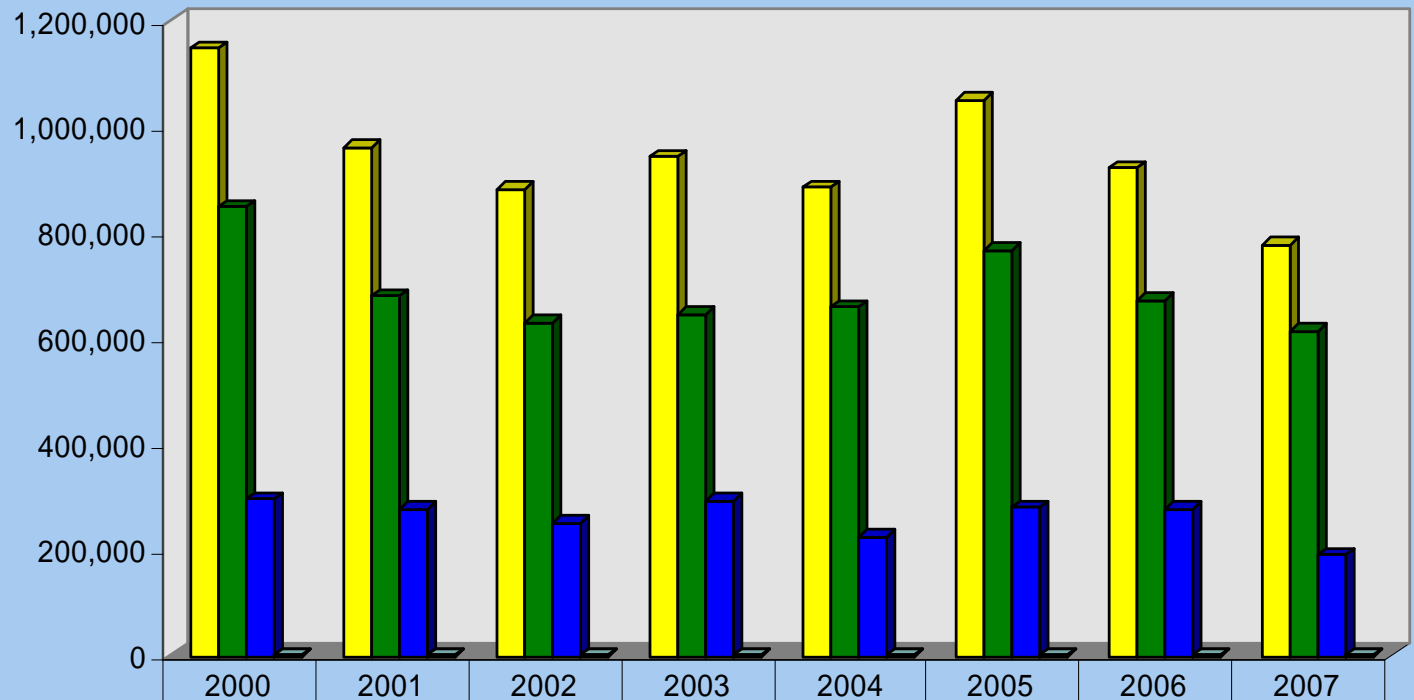
(Malaria-Endemic Countries)

AMERICAS: Population at Ecological Risk of Malaria Transmission, 2000-2007



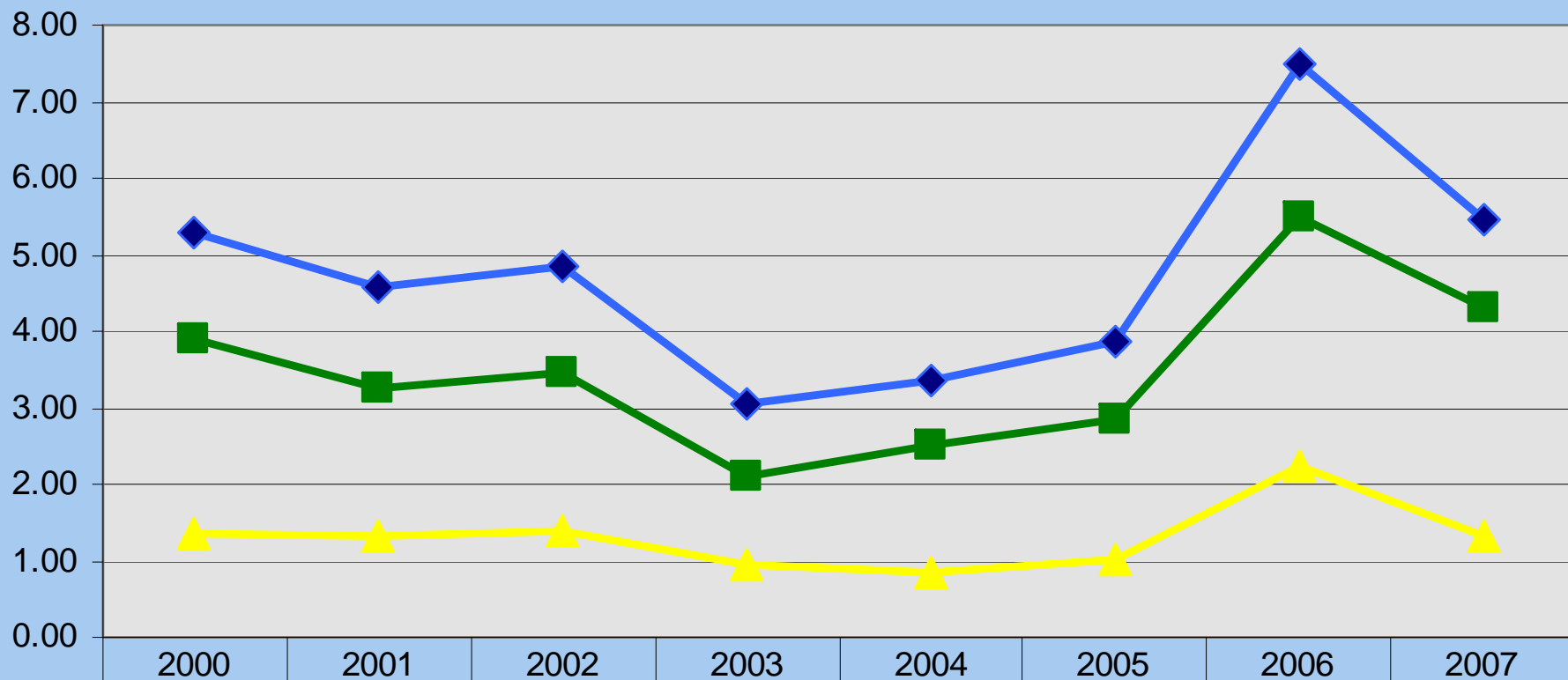
 Low Risk Population	115,463,000	115,451,000	102,482,000	225,221,000	221,147,000	235,035,000	81,515,341	99,260,180
 Medium Risk Population	51,546,000	52,889,000	45,963,000	50,441,000	30,391,000	22,407,000	24,137,094	27,983,015
 High Risk Population	41,307,000	41,251,000	33,210,000	32,326,000	11,150,000	13,150,000	16,891,804	14,908,215
 Total Population at Risk	216,458,000	209,688,000	181,752,000	308,085,000	262,688,000	270,591,000	122,552,239	142,151,410

AMERICAS: Malaria Morbidity, 2000-2007



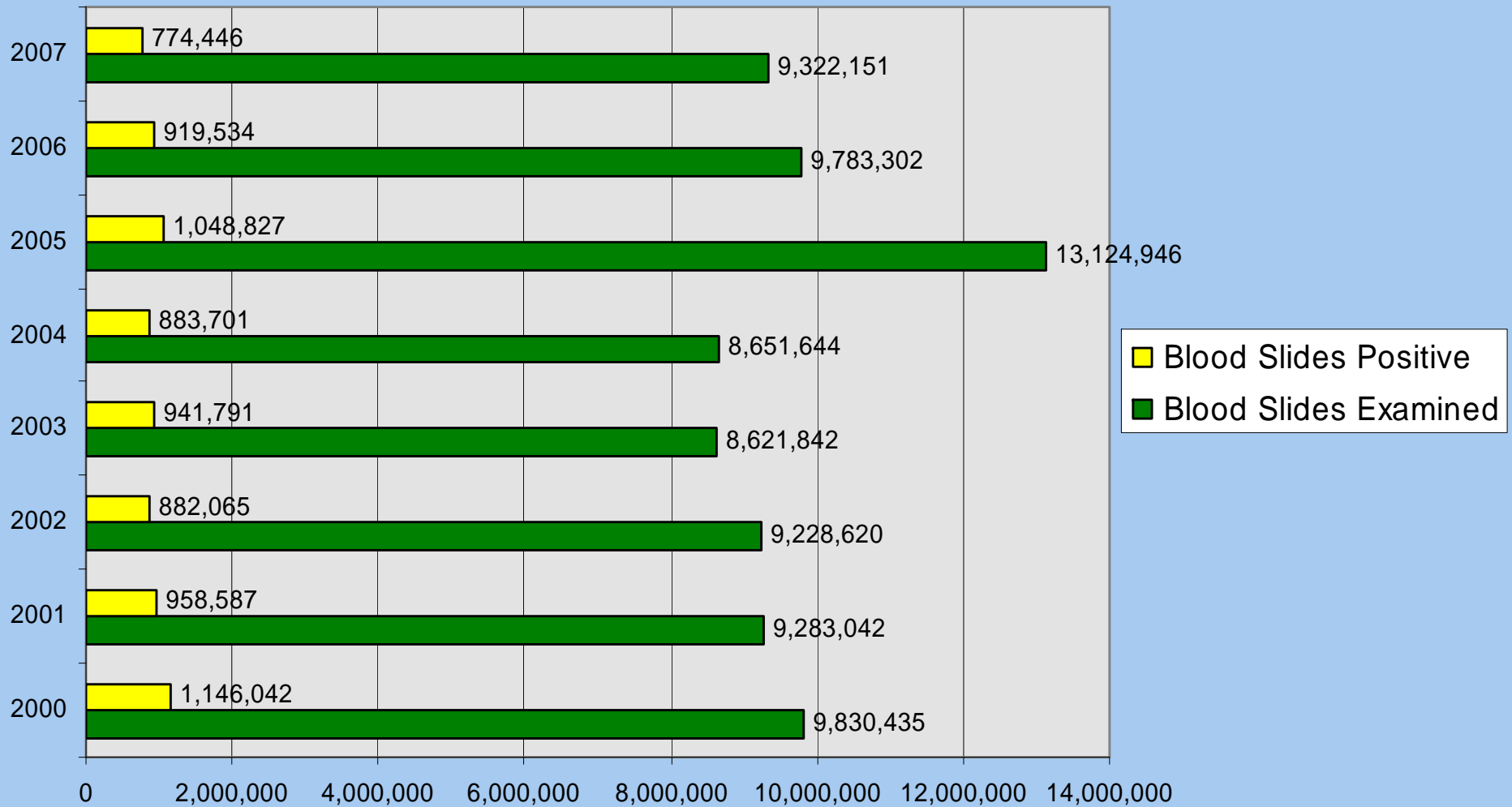
	2000	2001	2002	2003	2004	2005	2006	2007
■ No. of Cases	1,146,042	958,587	882,065	941,791	883,701	1,048,827	919,534	774,446
■ No. of P. vivax	847,294	679,249	629,361	644,125	656,913	766,799	671,405	612,021
■ No. of P. falciparum & mixed	294,842	277,036	250,236	293,391	225,238	279,468	275,644	189,629
□ No. of P. malariae	2,007	2,142	2,432	1,577	1,520	2,228	1,196	609

AMERICAS: Annual Parasitic Index (API), Annual Index of *P. vivax* (AVI) and Annual Index of *P. falciparum* (AFI), 2000-2007

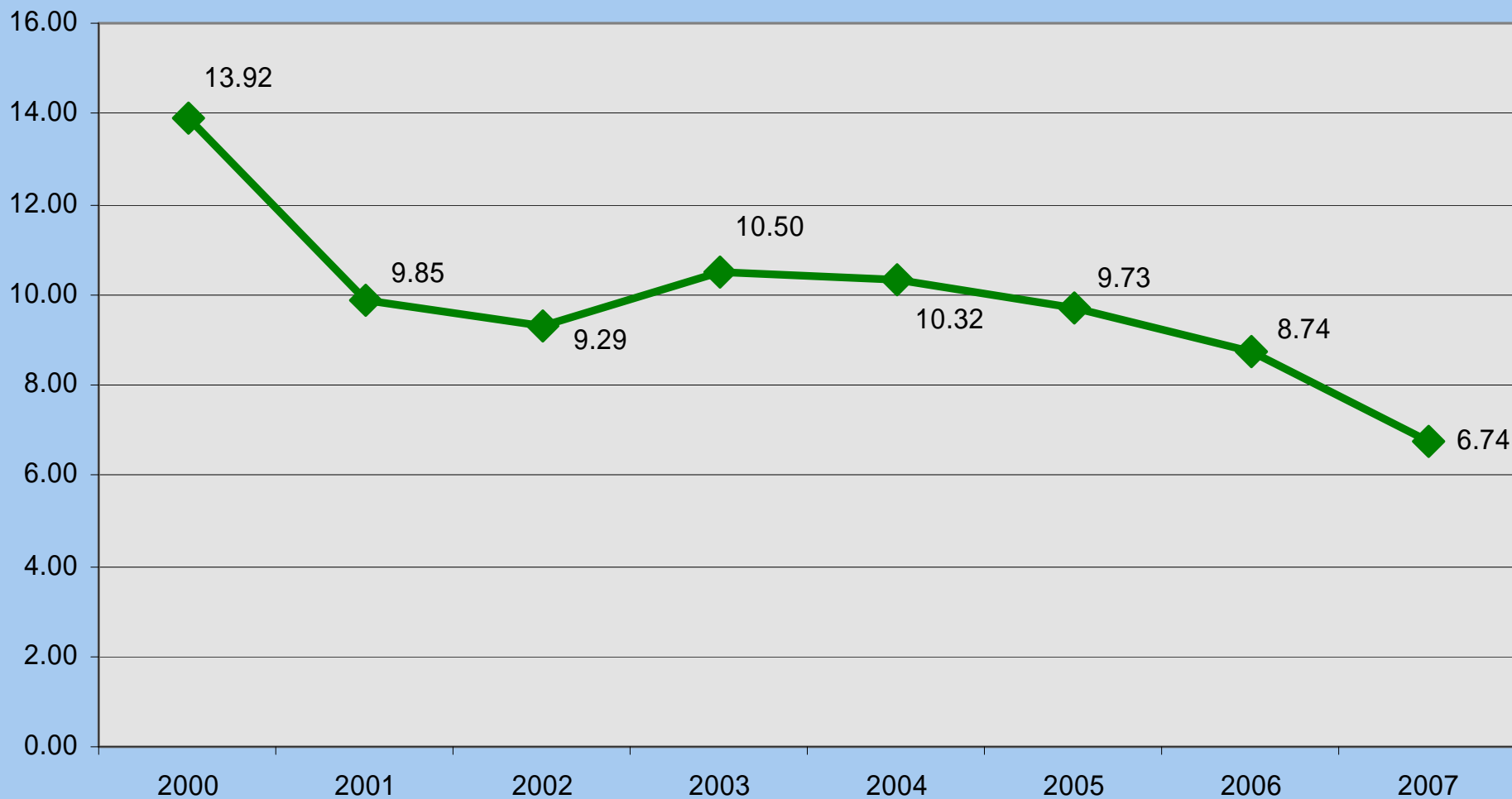


◆ API	5.29	4.57	4.85	3.06	3.36	3.88	7.50	5.45
■ AVI	3.91	3.24	3.46	2.09	2.50	2.83	5.48	4.31
▲ AFI	1.36	1.32	1.38	0.95	0.86	1.03	2.25	1.33

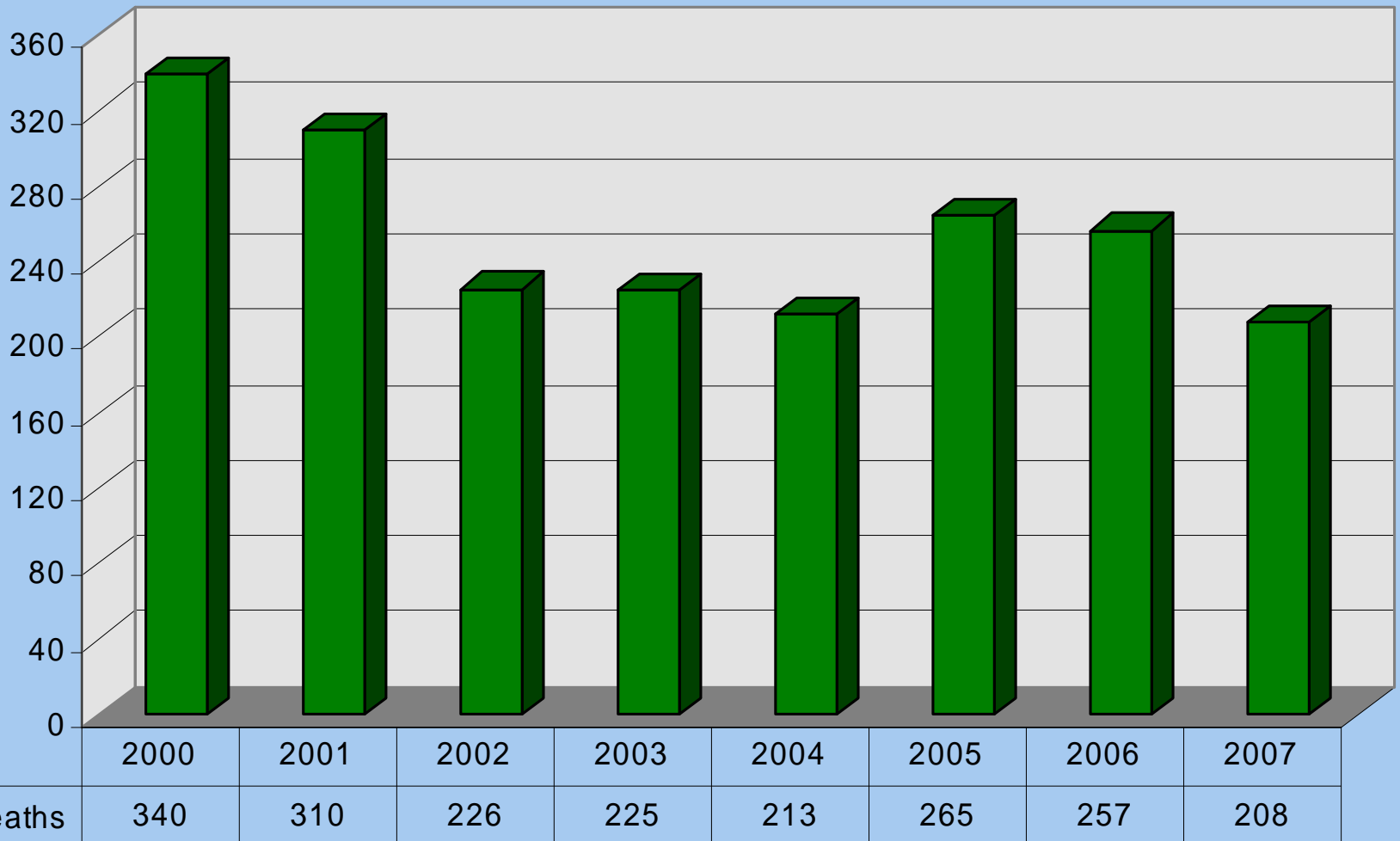
AMERICAS: Malaria Microscopy, 2000-2007



AMERICAS: Slide Positivity Rate (SPR), 2000-2007

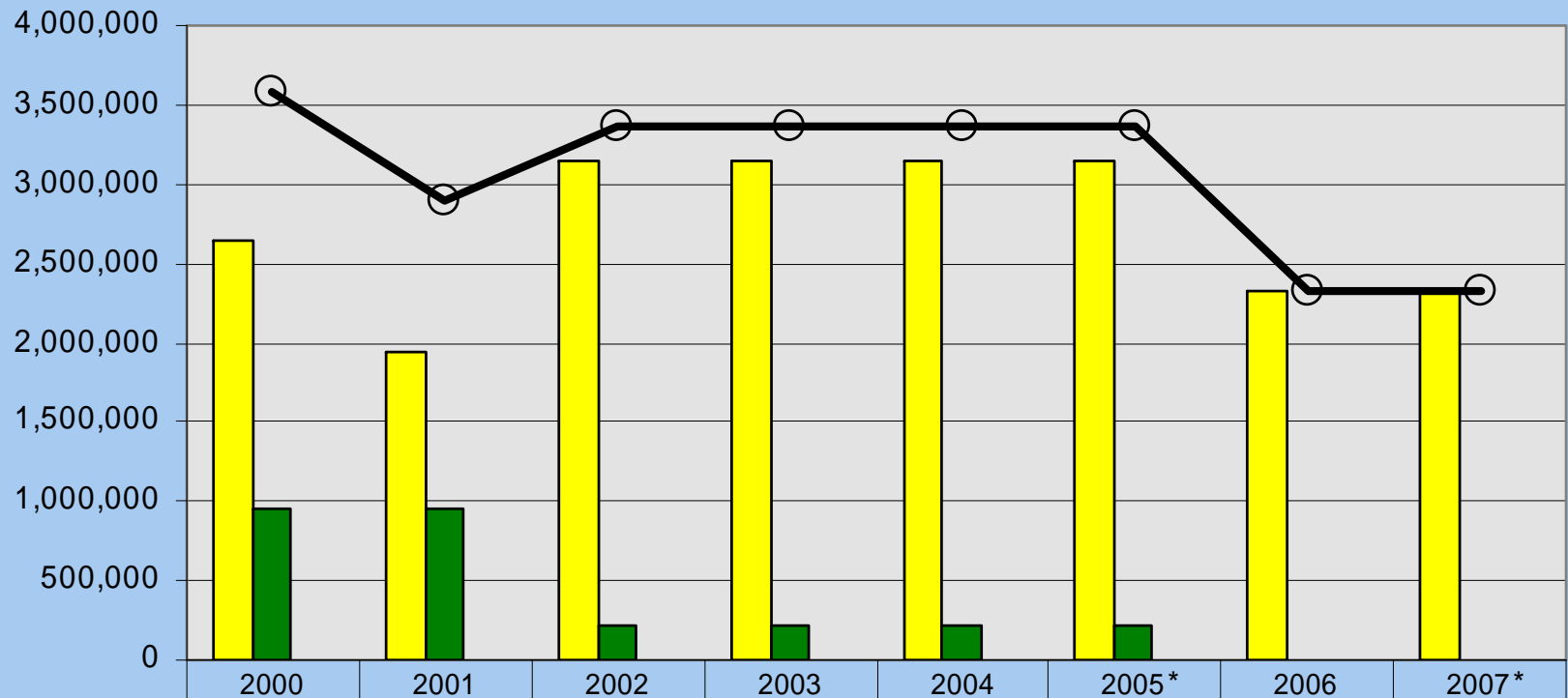






AMERICAS: Malaria Mortality, 2000-2007



ARGENTINA

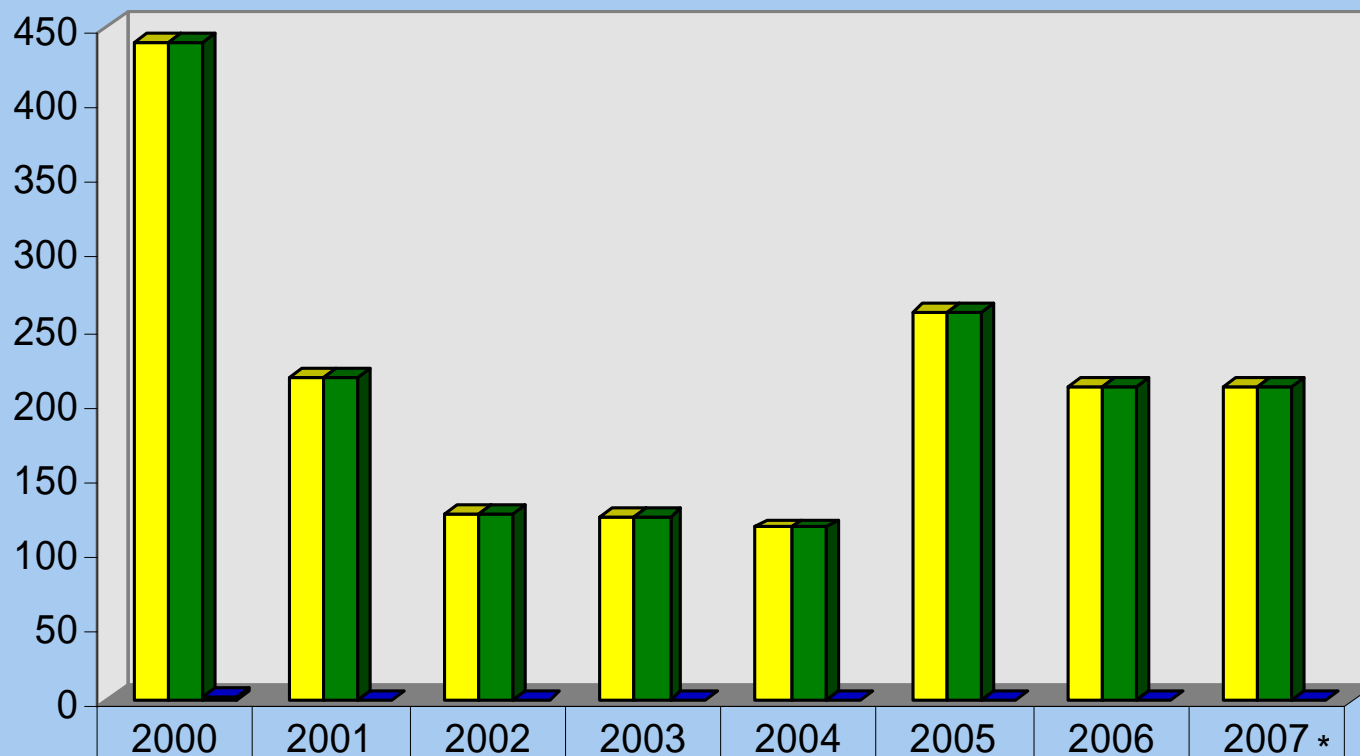
ARGENTINA: Population at Ecological Risk of Malaria Transmission, 2000-2007



 Low Risk Population	2,642,000	1,949,000	3,143,000	3,143,000	3,143,000	3,143,000	2,329,000	2,329,000
 Medium Risk Population	947,000	947,000	222,000	222,000	222,000	222,000	0	0
 High Risk Population	0	0	0	0	0	0	0	0
 Total Population at Risk	3,589,000	2,896,000	3,365,000	3,365,000	3,365,000	3,365,000	2,329,000	2,329,000

* Data taken from previous year

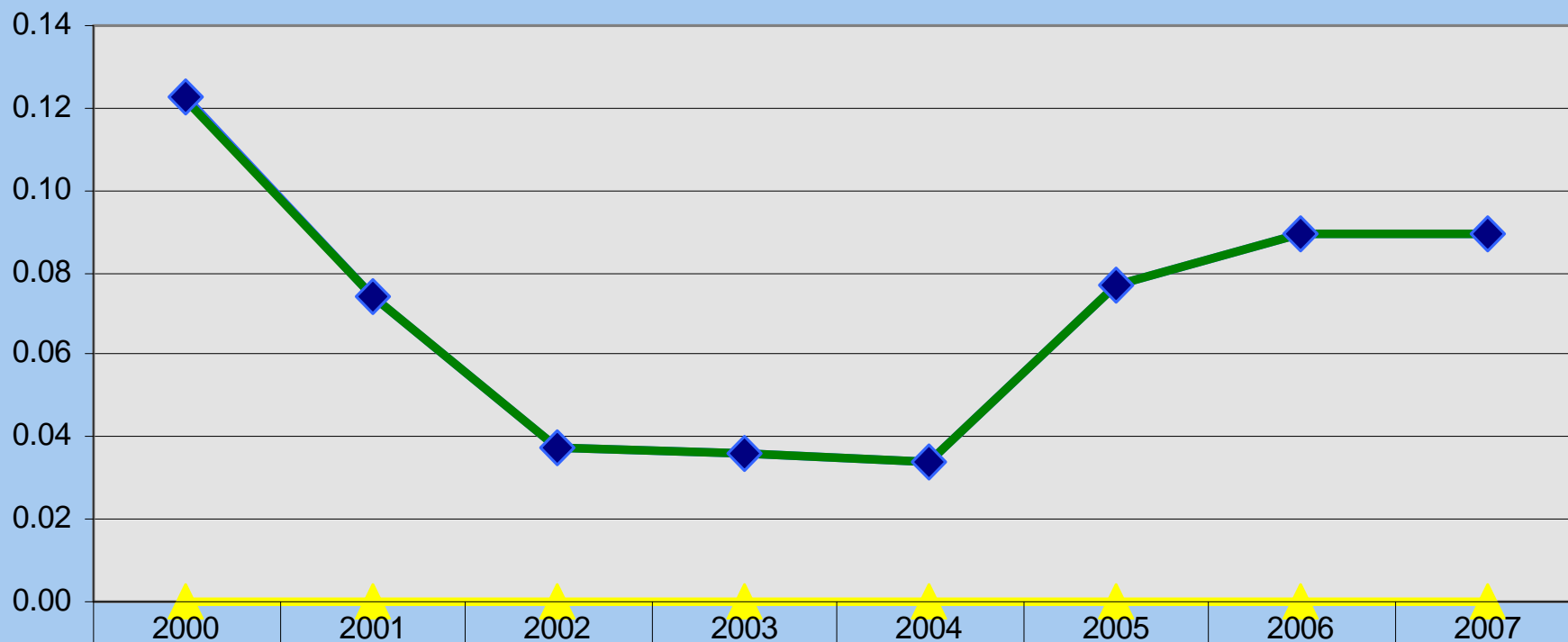
ARGENTINA: Malaria Morbidity, 2000-2007






■ No. of Cases	440	215	125	122	115	259	209	209
■ P. vivax	439	215	125	122	115	259	209	209
■ P. falciparum & mixed	1	0	0	0	0	0 *	0	0

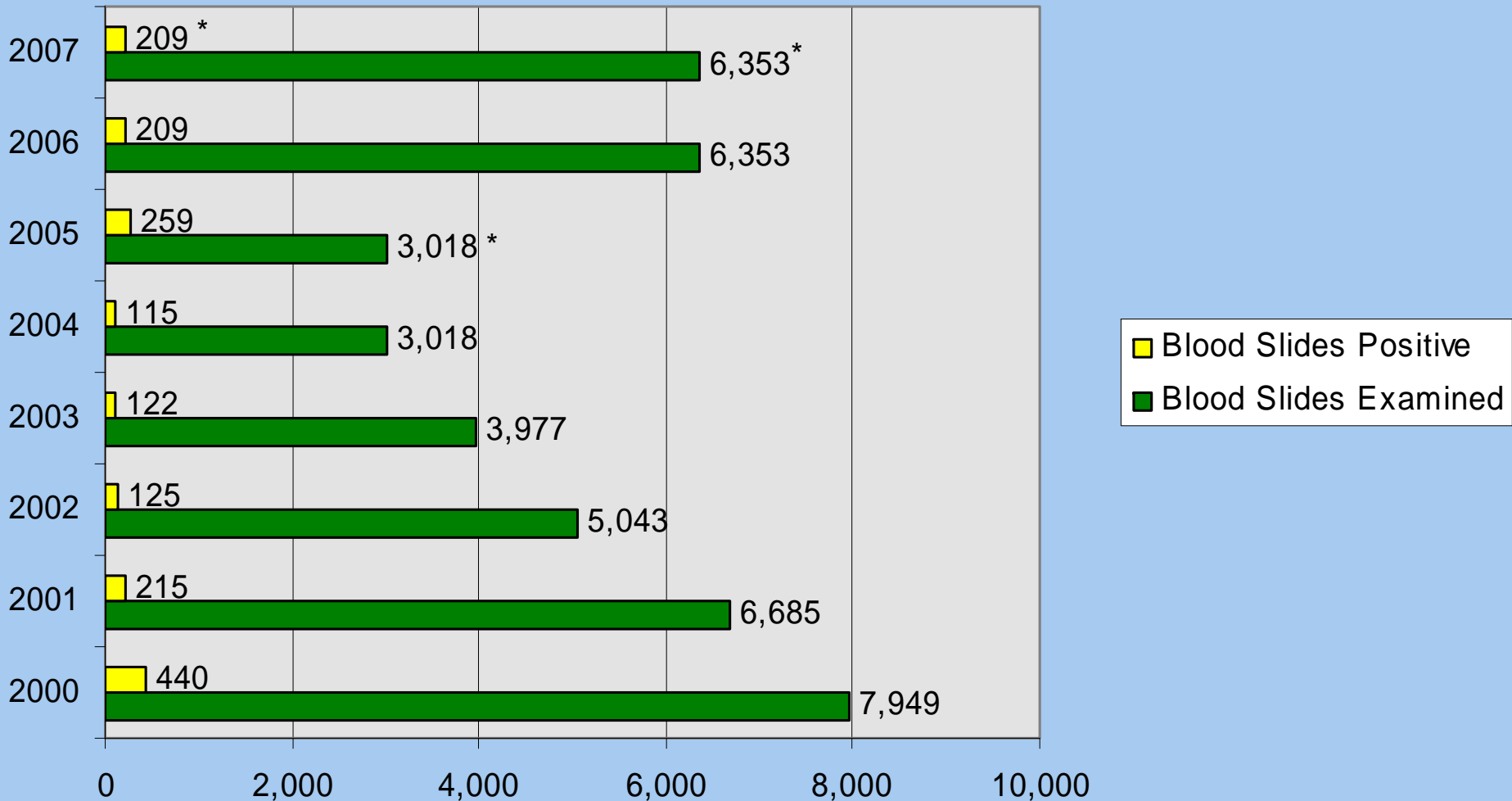
* Data taken from previous year

ARGENTINA: Annual Parasitic Index (API), Annual Index of *P. vivax* (AVI) and Annual Index of *P. falciparum* (AFI), 2000-2007



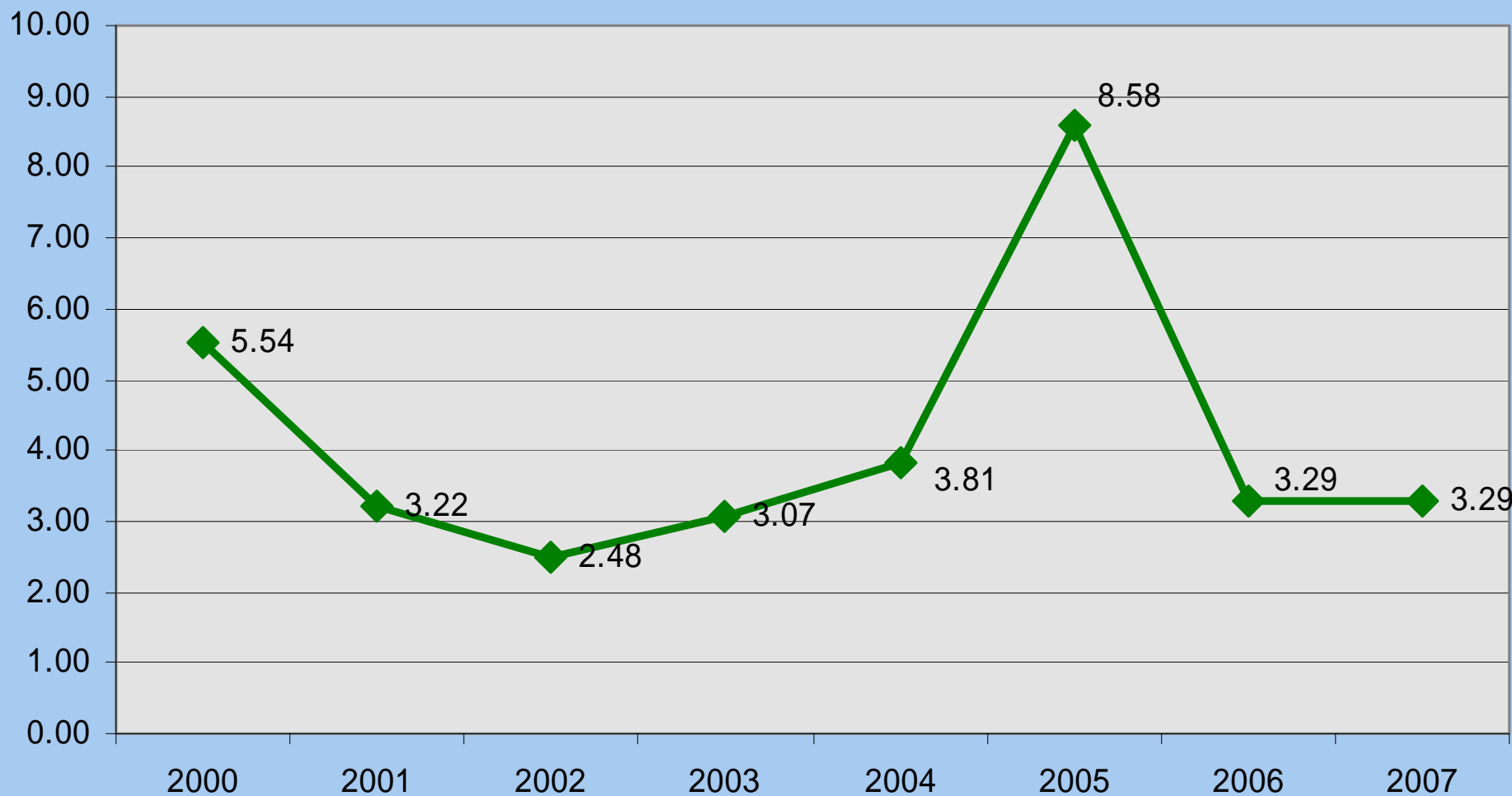
 API	0.12	0.07	0.04	0.04	0.03	0.08	0.09	0.09
 AVI	0.12	0.07	0.04	0.04	0.03	0.08	0.09	0.09
 AFI	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

ARGENTINA: Malaria Microscopy, 2000-2007

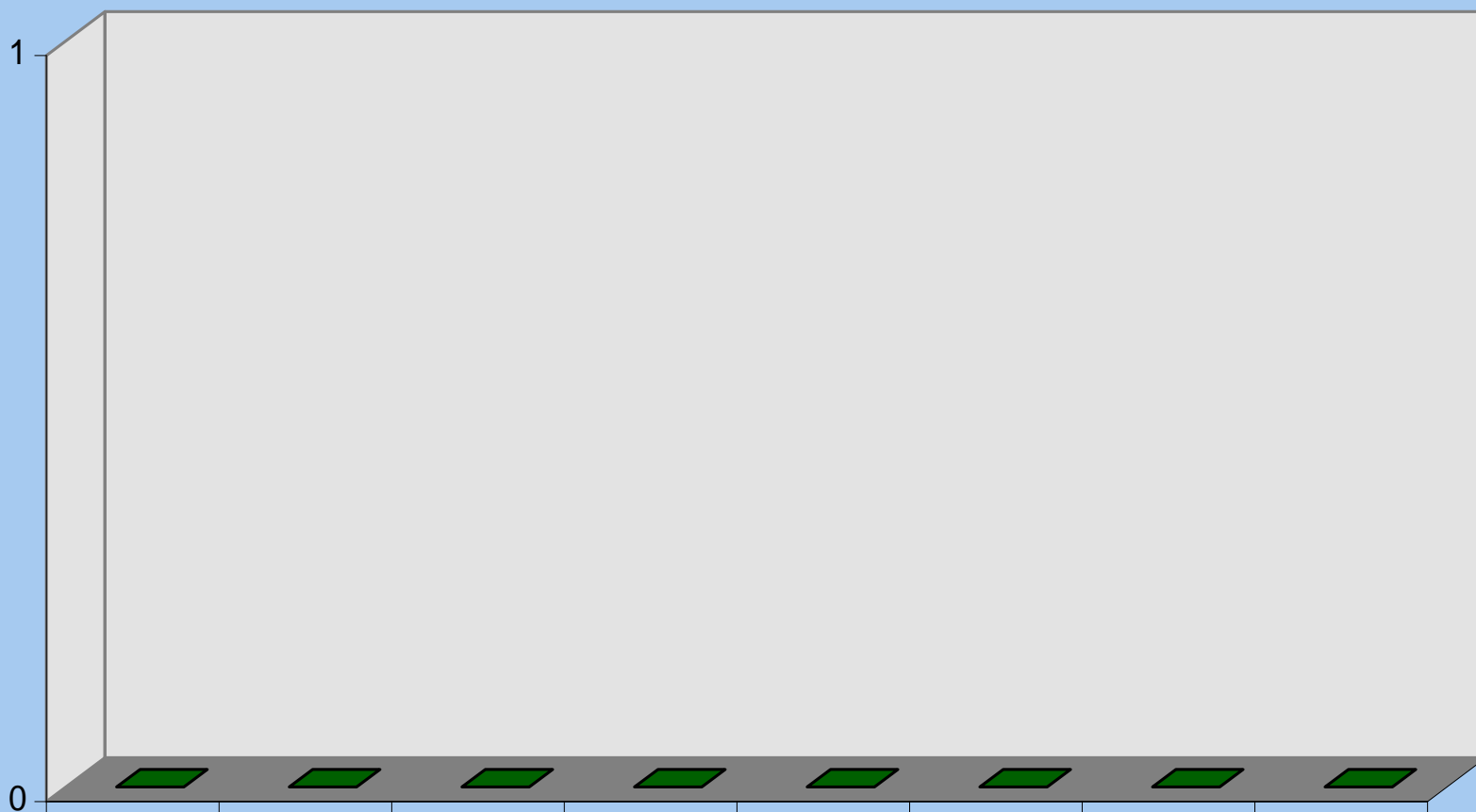


* Data taken from previous year

ARGENTINA: Slide Positivity Rate (SPR), 2000-2007



ARGENTINA: Malaria Mortality, 2000-2007



■ No. of Deaths

2000

2001

2002

2003

2004

2005

2006

2007

0

0

0

0

0

0 *

0 *

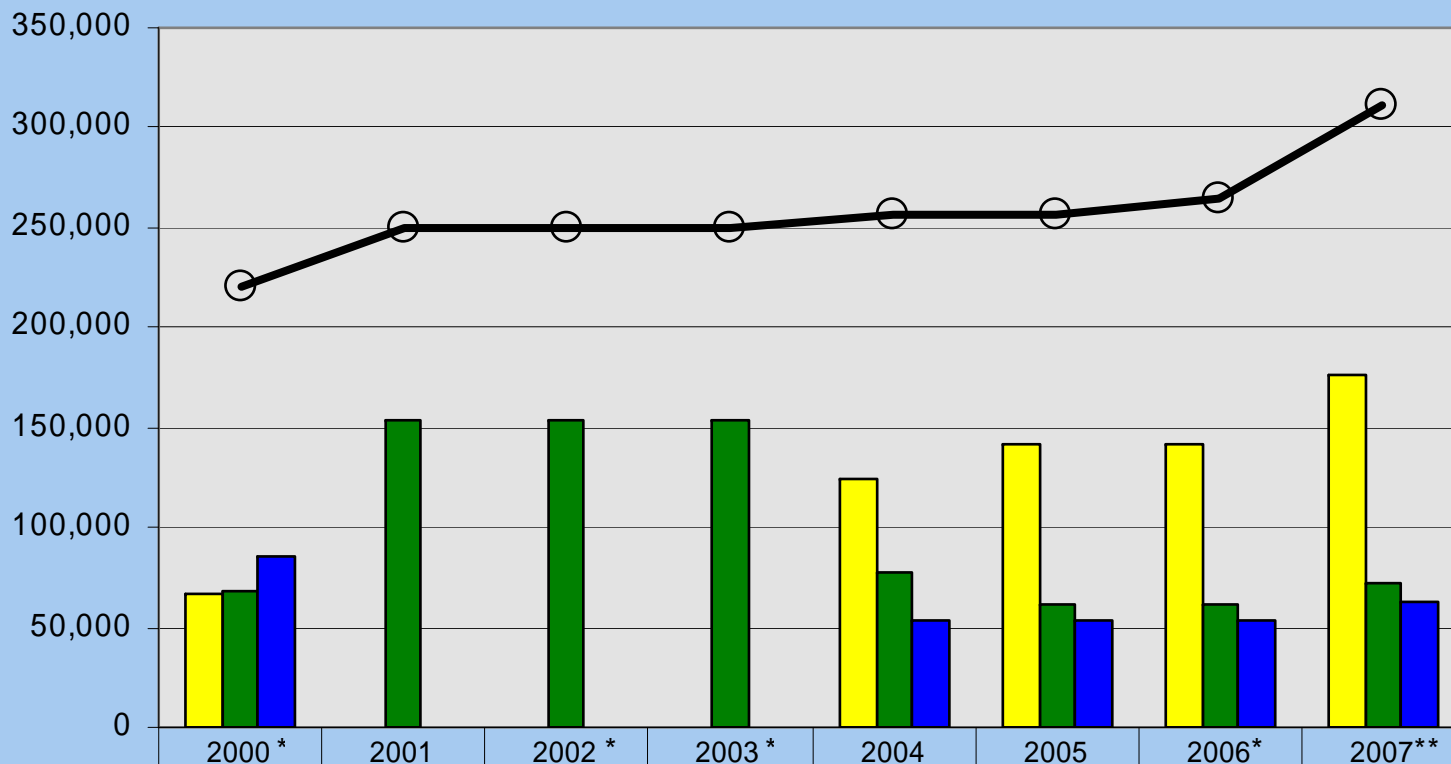
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


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BELIZE

BELIZE: Population at Ecological Risk of Malaria Transmission, 2000-2007



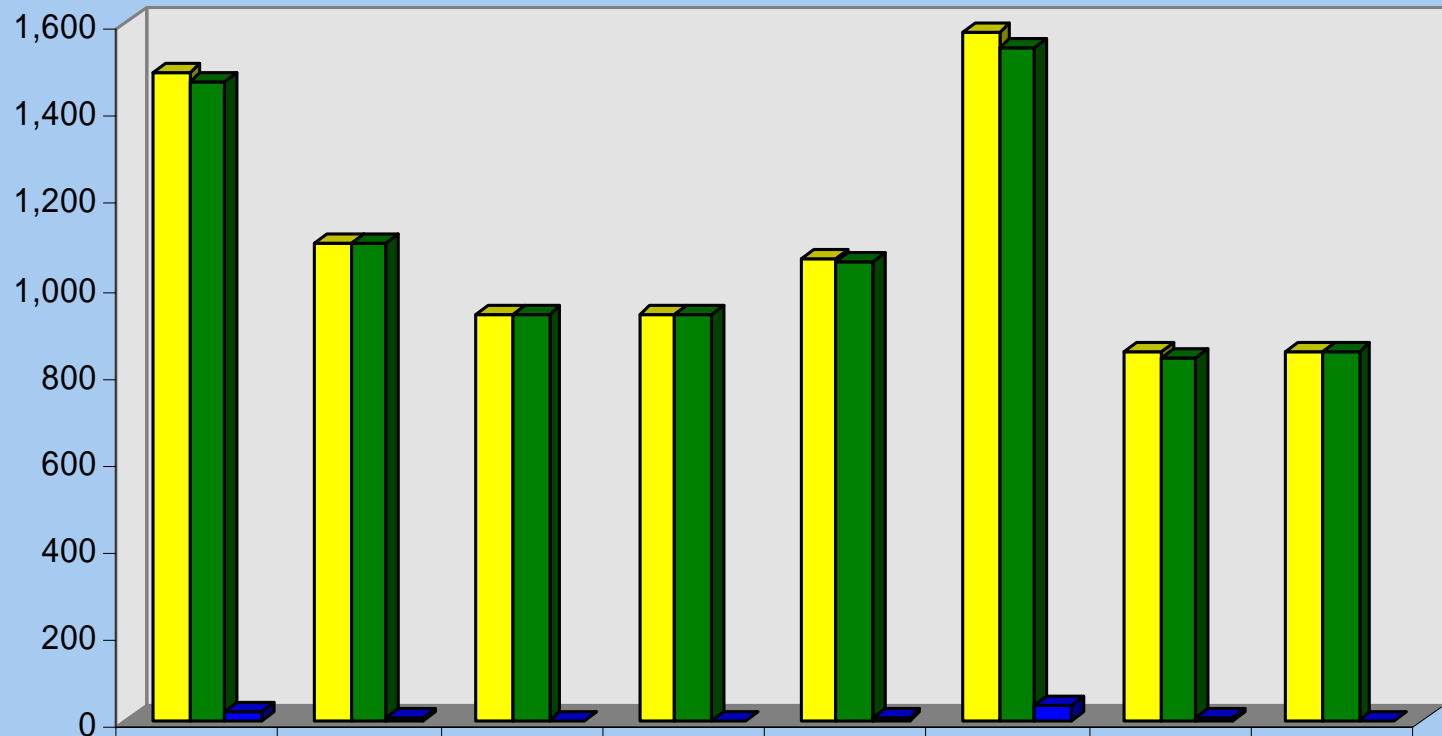
 Low Risk Population	67,000	0	0	0	124,000	142,000	142,000	176,600
 Medium Risk Population	68,000	153,000	153,000	153,000	78,000	61,000	61,000	71,497***
 High Risk Population	85,000	0	0	0	54,000	54,000	54,000	63,403***
 Total Population at Risk	220,000	250,000	250,000	250,000	256,000	256,000	265,000	311,500

* Data taken from previous year

** Based on preliminary data

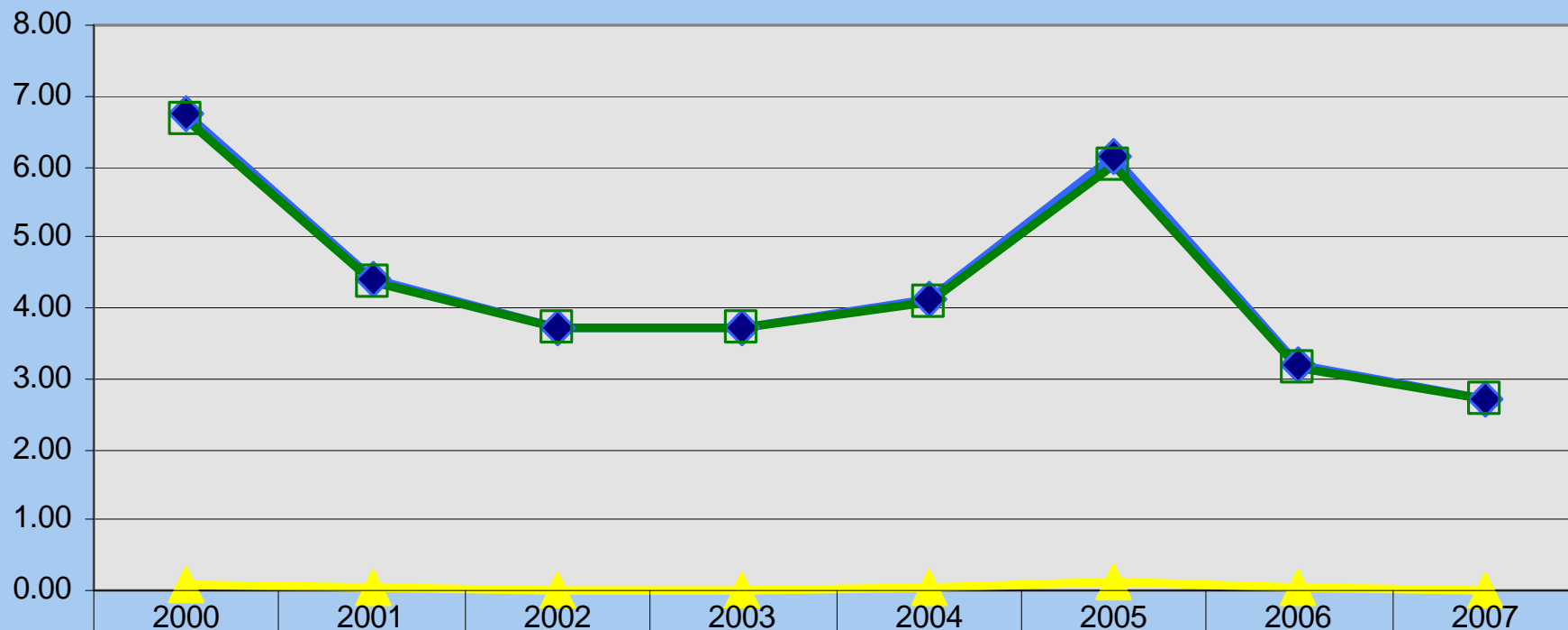
*** 2007 medium- and high-risk populations based on percentage of previous year's medium- and high-risk populations to total population at risk

BELIZE: Malaria Morbidity, 2000-2007



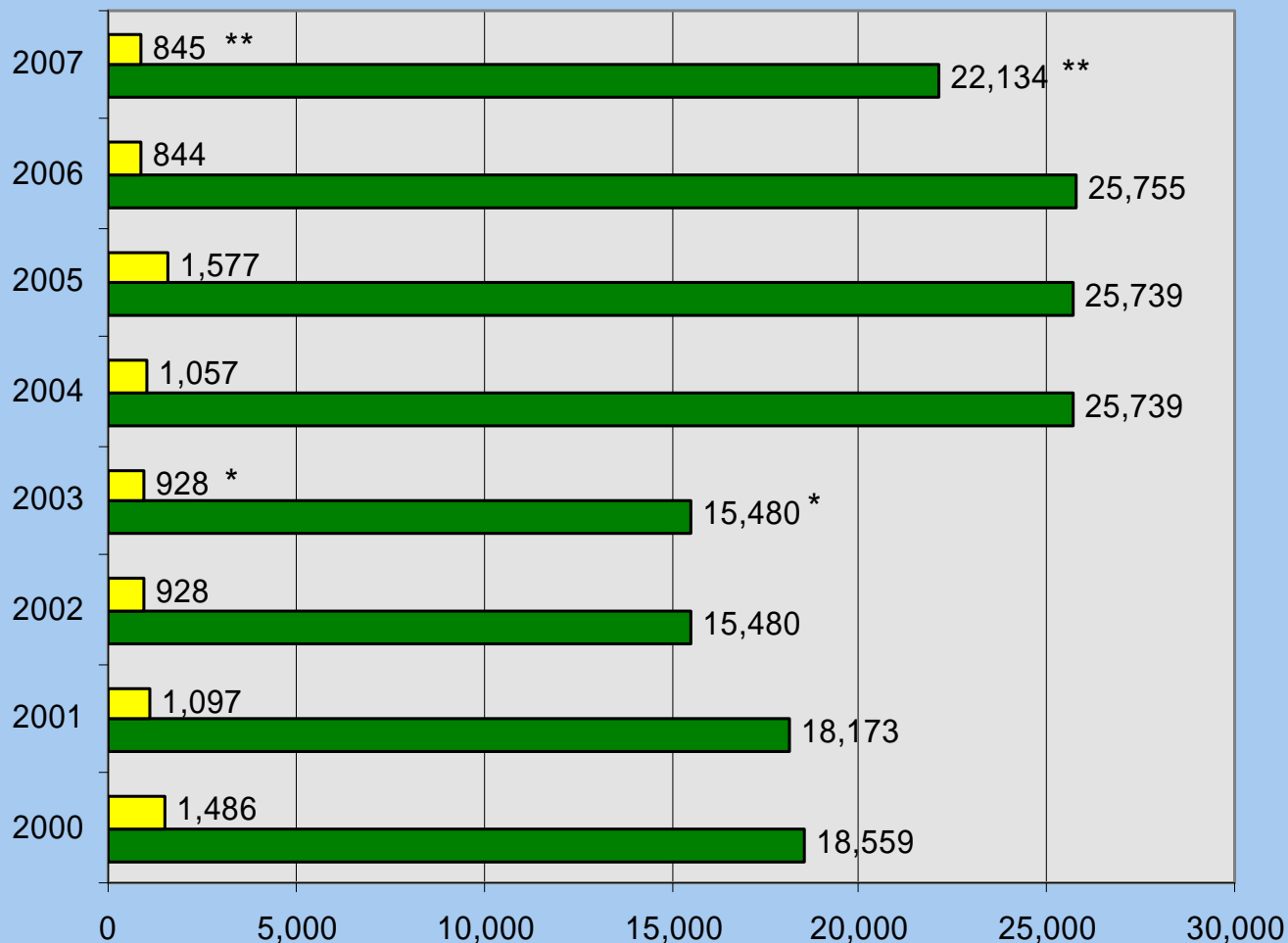
	2000	2001	2002	2003 *	2004	2005	2006	2007 **
■ No. of Cases	1,486	1,097	928	928	1,057	1,577	844	845
■ P. vivax	1,466	1,091	928	928	1,049	1,544	834	845
■ P. falciparum & mixed	20	6	0	0	6	34	10	0

BELIZE: Annual Parasitic Index (API), Annual Index of *P. vivax* (AVI) and Annual Index of *P. falciparum* (AFI), 2000-2007



◆ API	6.75	4.39	3.71	3.71	4.13	6.16	3.18	2.71
■ AVI	6.66	4.36	3.71	3.71	4.10	6.03	3.15	2.71
▲ AFI	0.09	0.02	0.00	0.00	0.02	0.13	0.04	0.00

BELIZE: Malaria Microscopy, 2000-2007

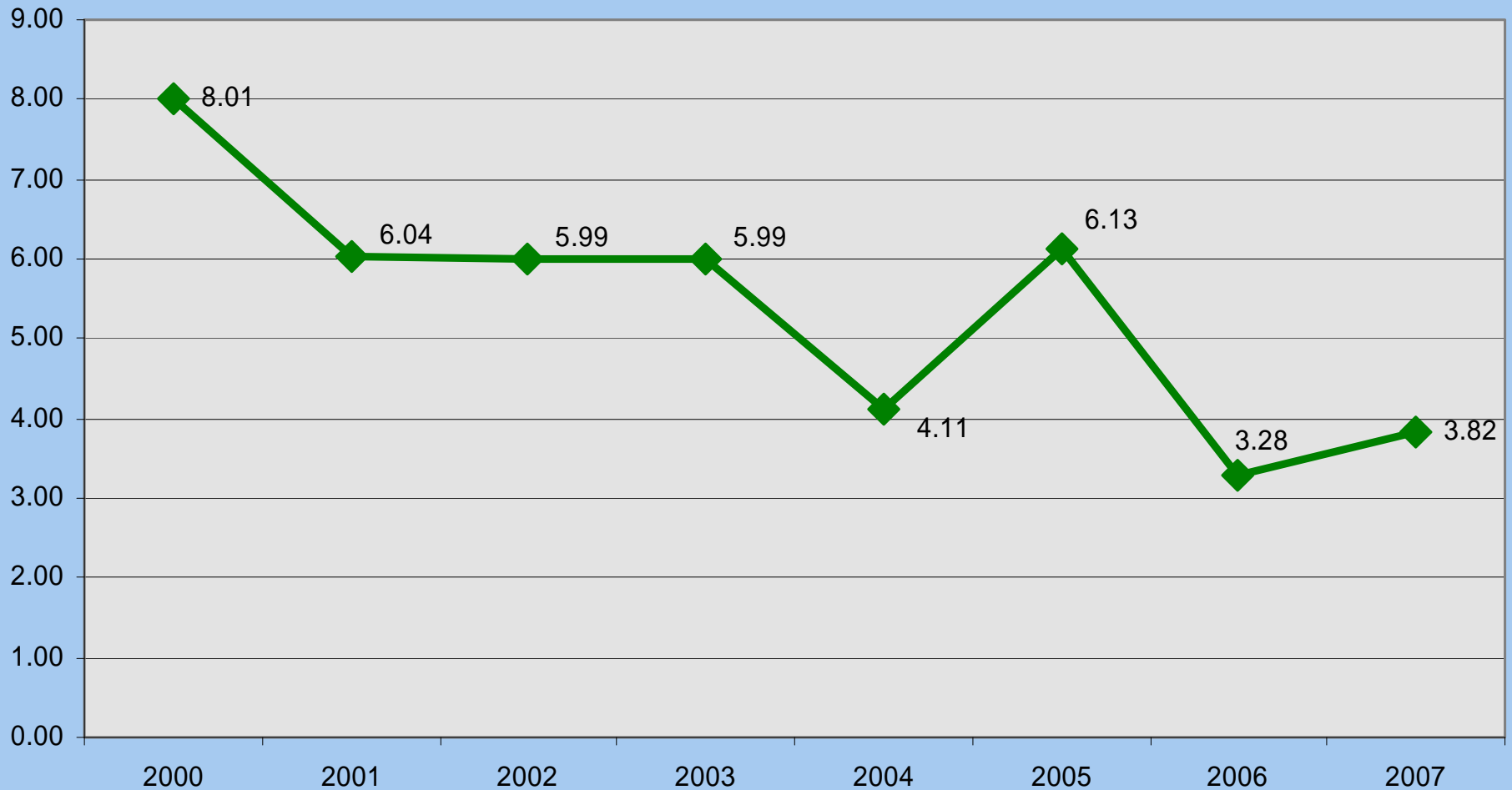


■ Blood Slides Positive
■ Blood Slides Examined

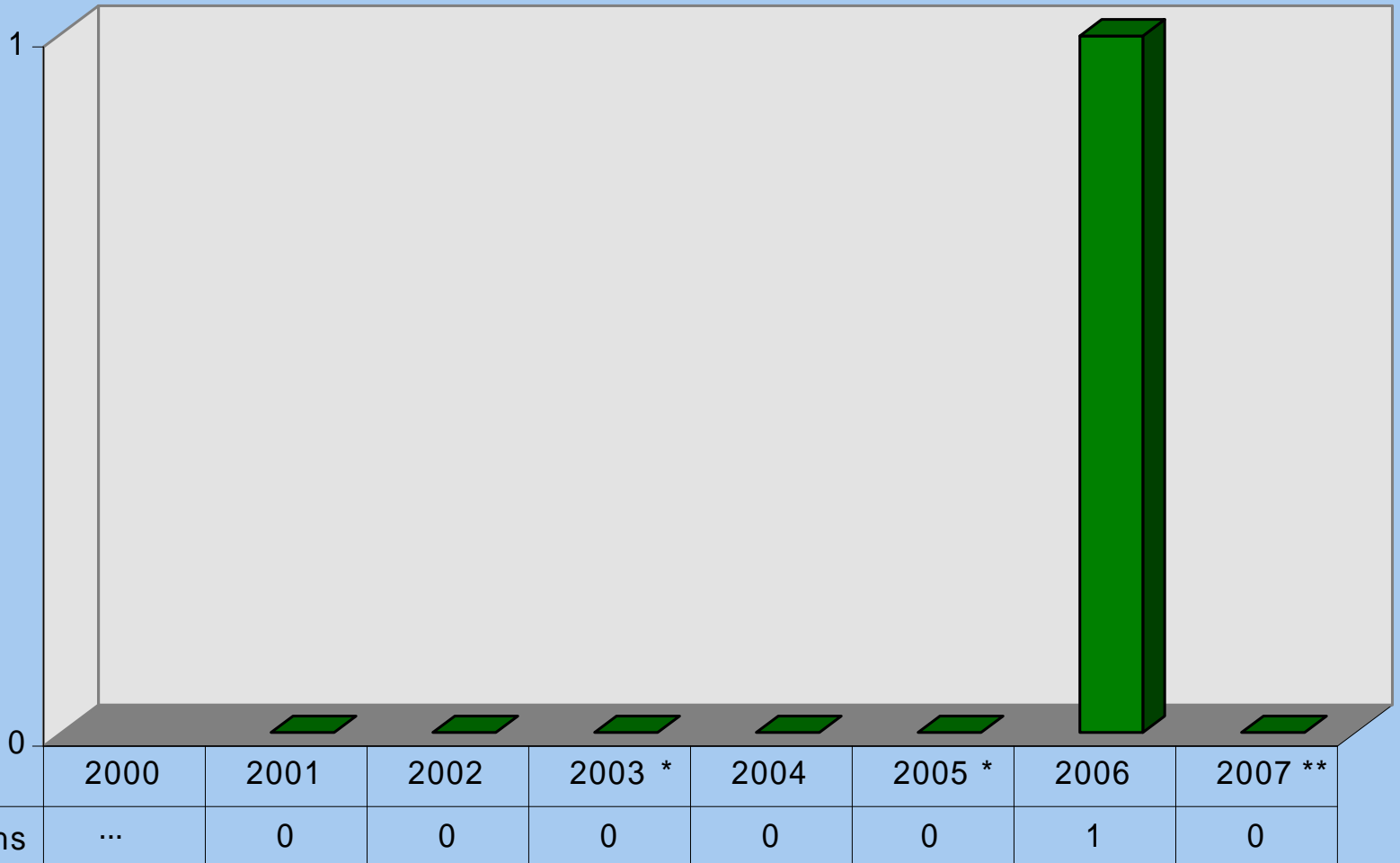
* Data taken from previous year

** Based on preliminary report

BELIZE: Slide Positivity Rate (SPR), 2000-2007



BELIZE: Malaria Mortality, 2000-2007

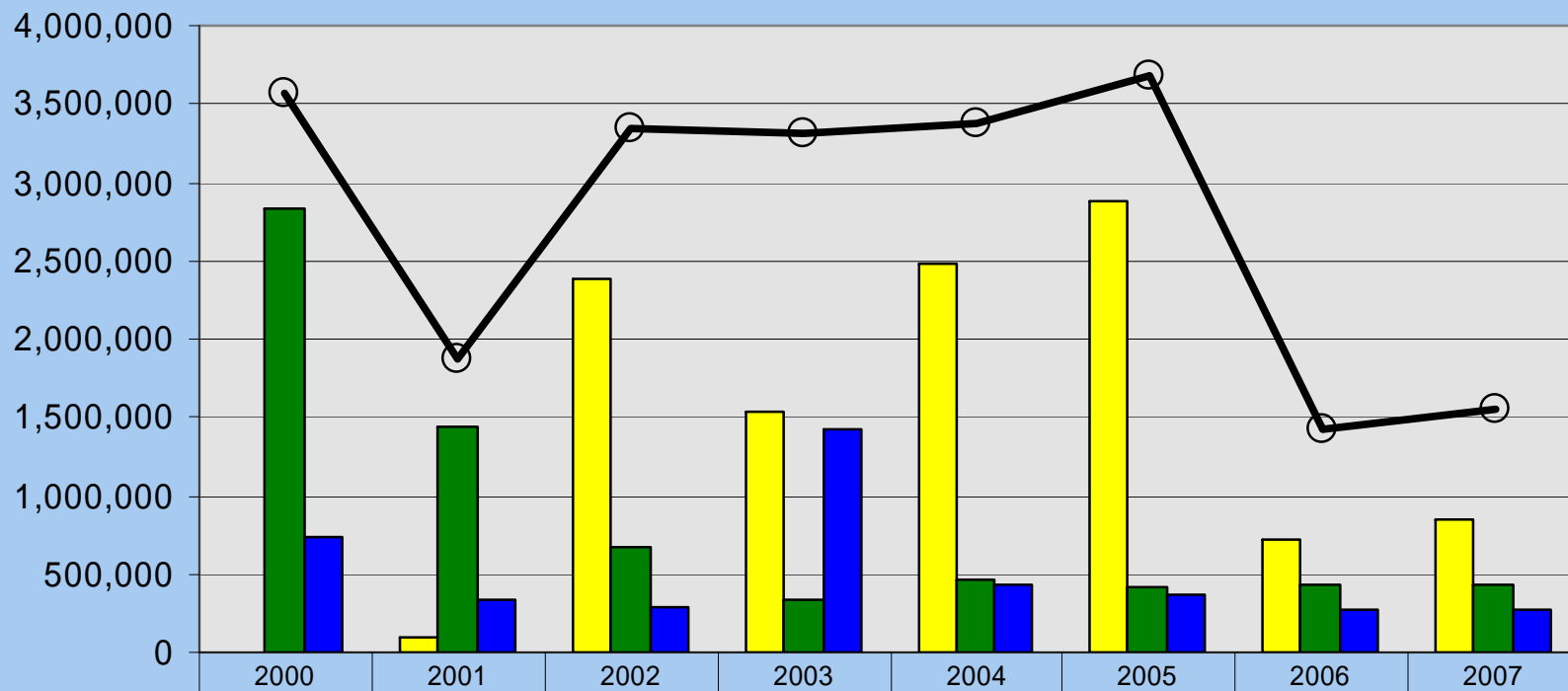


* Data taken from previous year

** Based on preliminary report

BOLIVIA

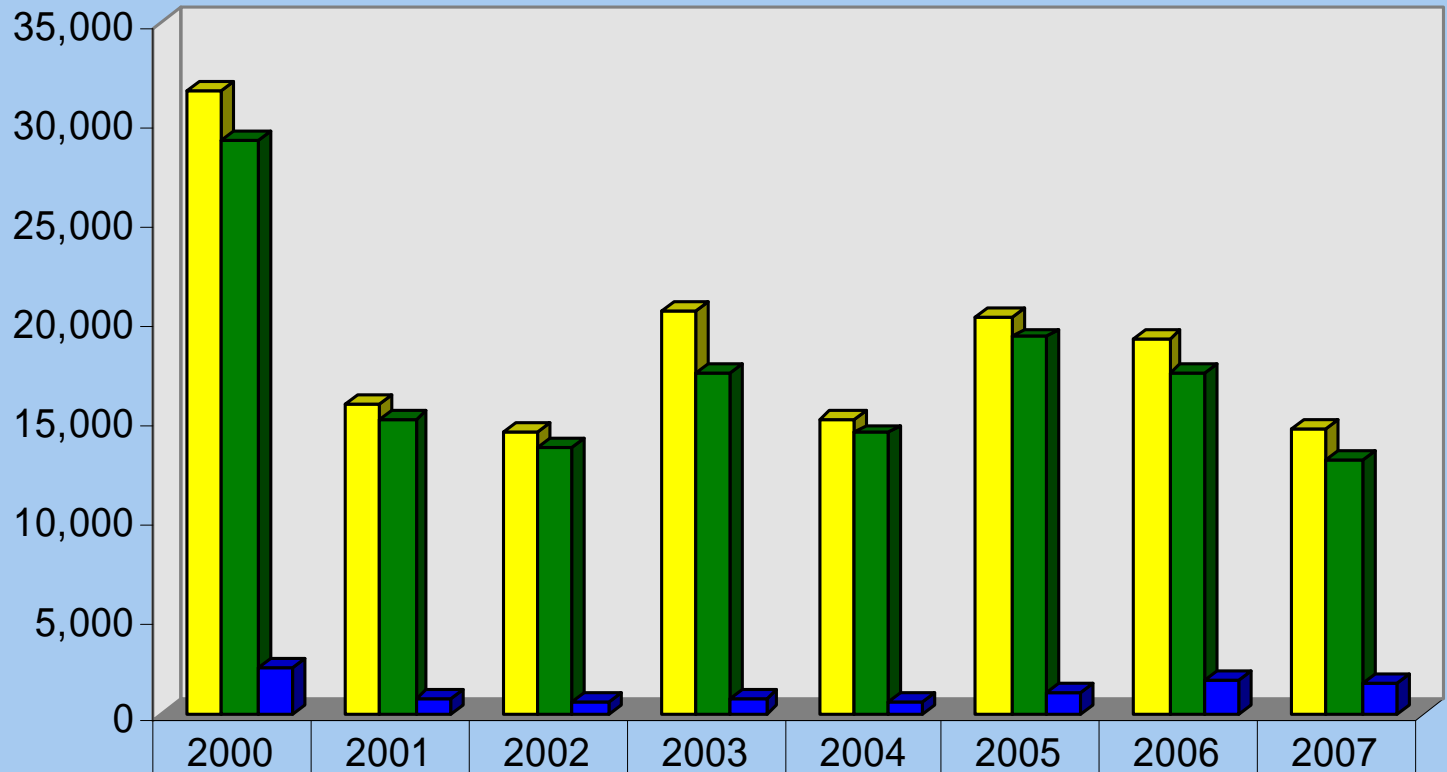
BOLIVIA: Population at Ecological Risk of Malaria Transmission, 2000-2007



	2000	2001	2002	2003	2004	2005	2006	2007
Low Risk Population	0	100,000	2,377,000	1,544,000	2,482,000	2,887,000	720,000	849,532
Medium Risk Population	2,828,000	1,434,000	666,000	339,000	461,000	423,000	438,000	438,495 *
High Risk Population	742,000	337,000	294,000	1,429,000	427,000	368,000	271,000	271,388 *
Total Population at Risk	3,570,000	1,871,000	3,337,000	3,312,000	3,370,000	3,678,000	1,429,000	1,559,415

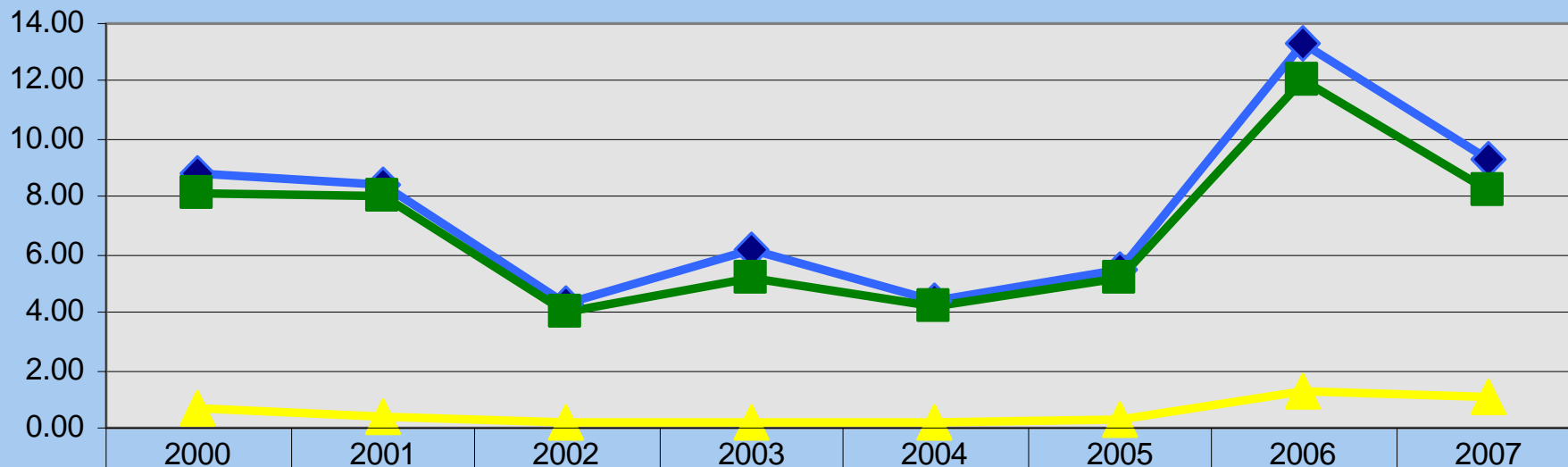
* 2007 medium- and high-risk populations based on percentage of previous year's medium- and high-risk populations to total population at risk

BOLIVIA: Malaria Morbidity, 2000-2007



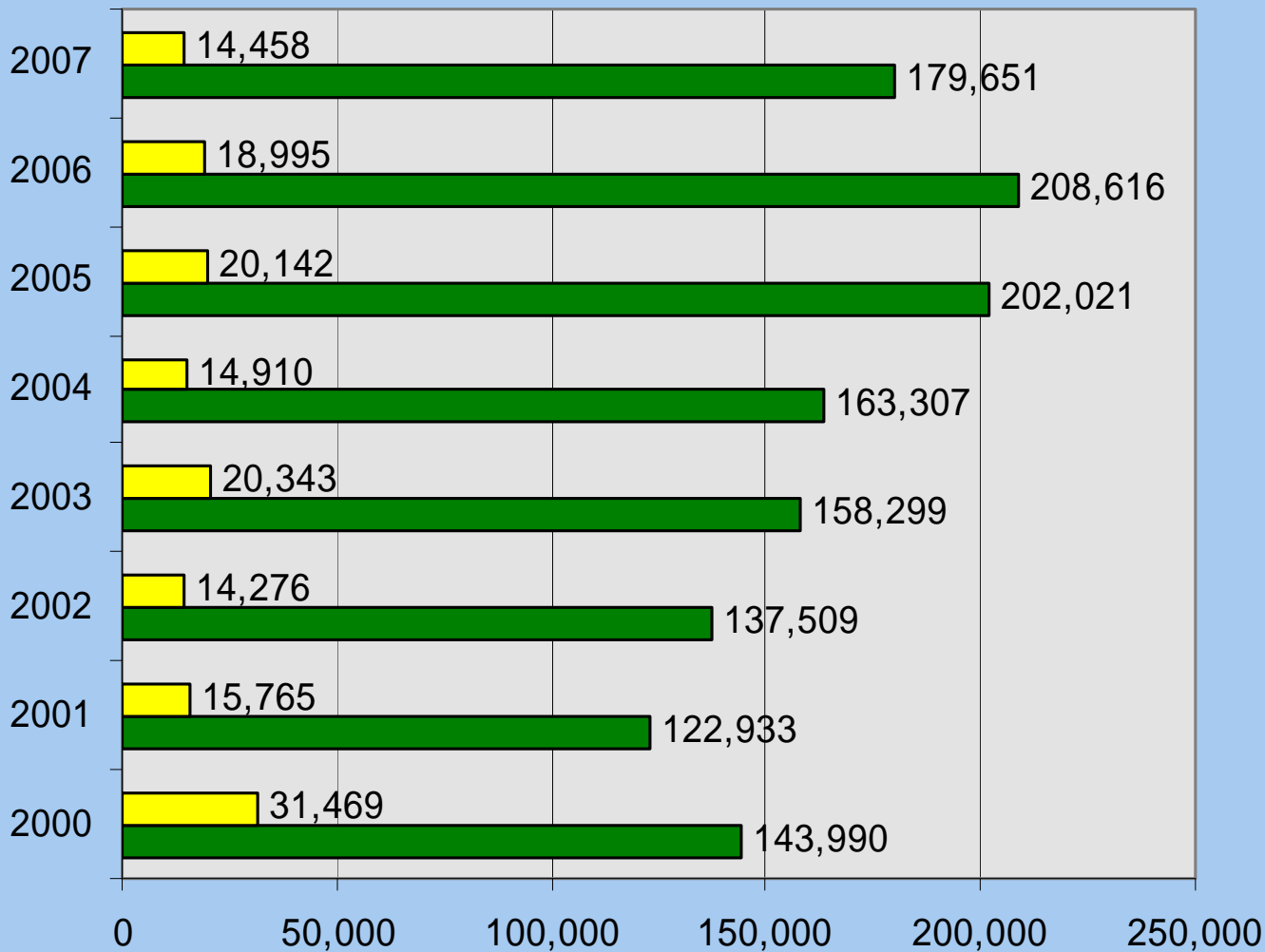
	2000	2001	2002	2003	2004	2005	2006	2007
■ No. of Cases	31,469	15,765	14,276	20,343	14,910	20,142	18,995	14,458
■ P. vivax	28,932	14,957	13,549	17,319	14,215	19,062	17,210	12,848
■ P. falciparum & mixed	2,446	808	727	793	695	1,080	1,785	1,610

BOLIVIA: Annual Parasitic Index (API), Annual Index of *P. vivax* (AVI) and Annual Index of *P. falciparum* (AFI), 2000-2007



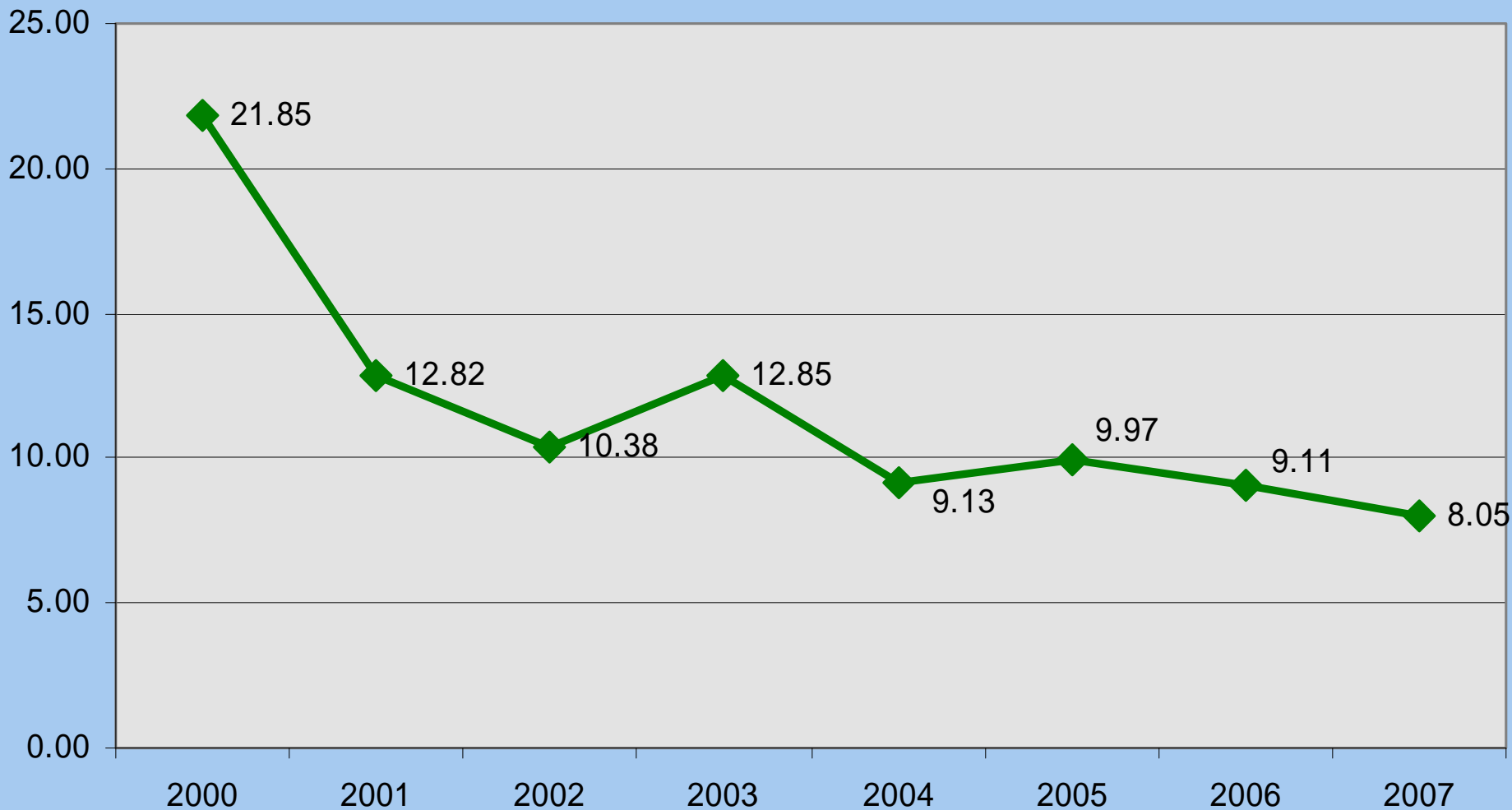
	2000	2001	2002	2003	2004	2005	2006	2007
◆ API	8.81	8.43	4.28	6.14	4.42	5.48	13.29	9.27
■ AVI	8.10	7.99	4.06	5.23	4.22	5.18	12.04	8.24
▲ AFI	0.69	0.43	0.22	0.24	0.21	0.29	1.25	1.03

BOLIVIA: Malaria Microscopy, 2000-2007

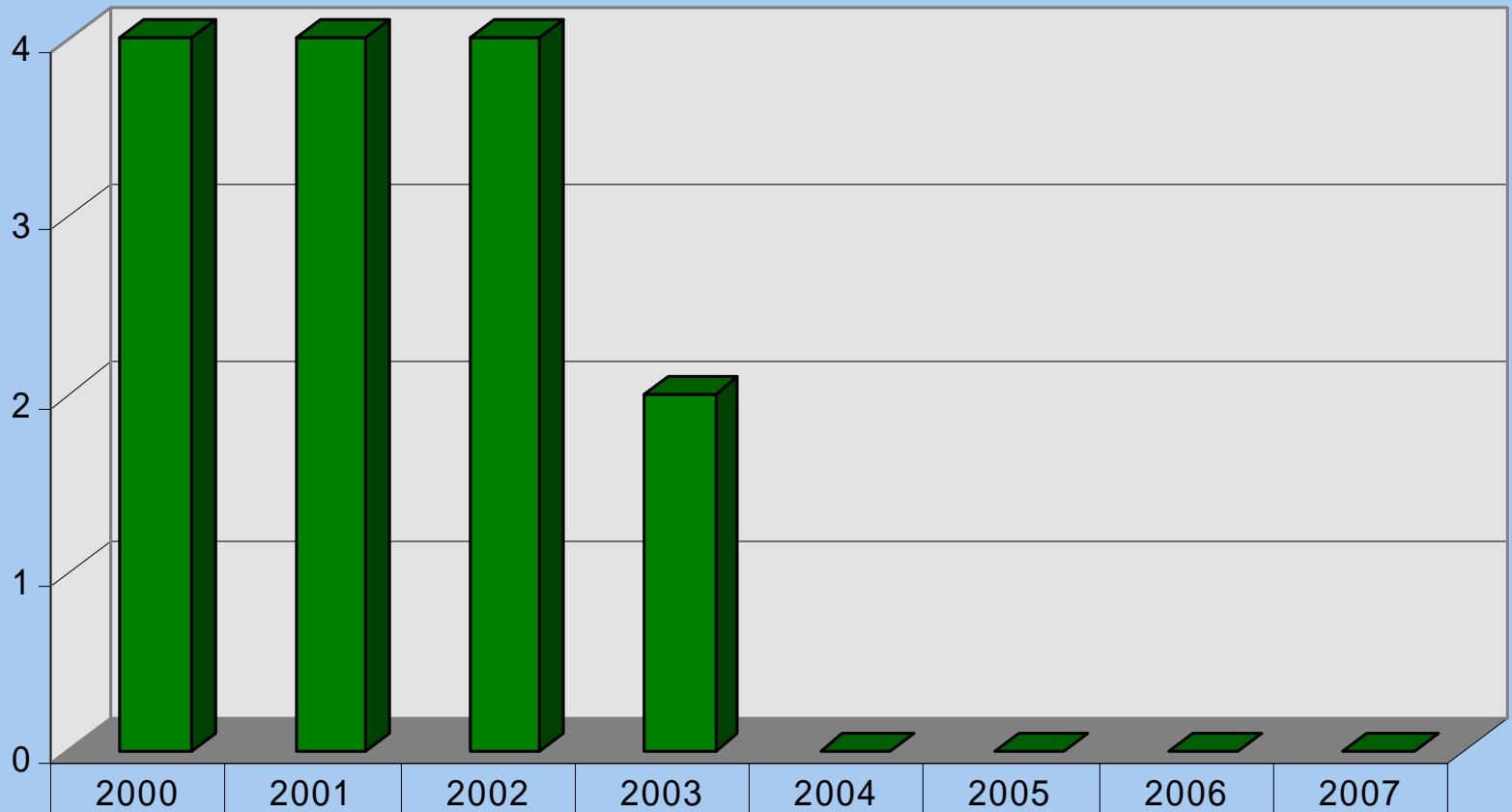


■ Blood Slides Positive
■ Blood Slides Examined

BOLIVIA: Slide Positivity Rate (SPR), 2000-2007



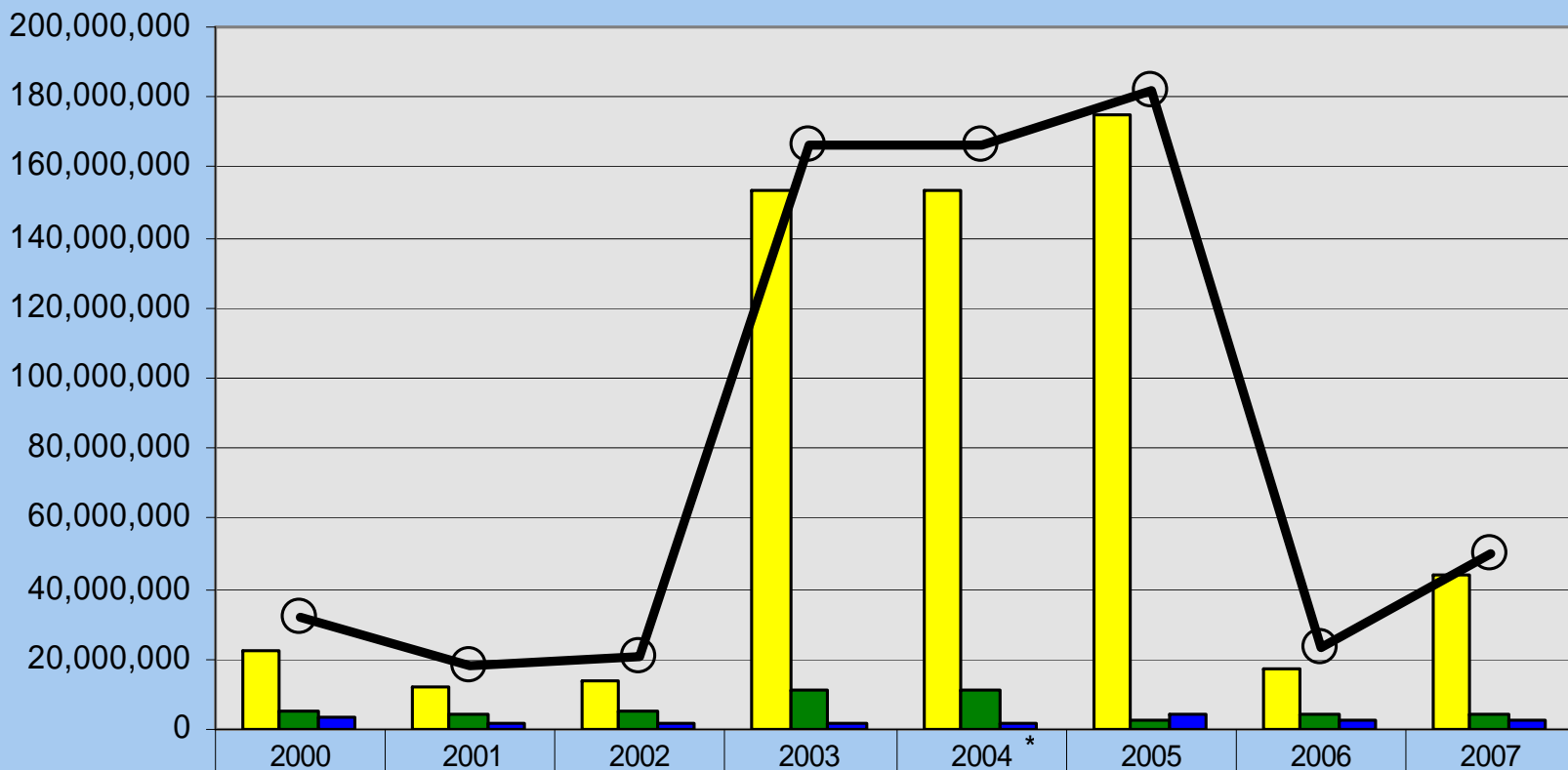
BOLIVIA: Malaria Mortality, 2000-2007







■ No. of Deaths	4	4 *	4	2	0	0	0	0
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BRAZIL

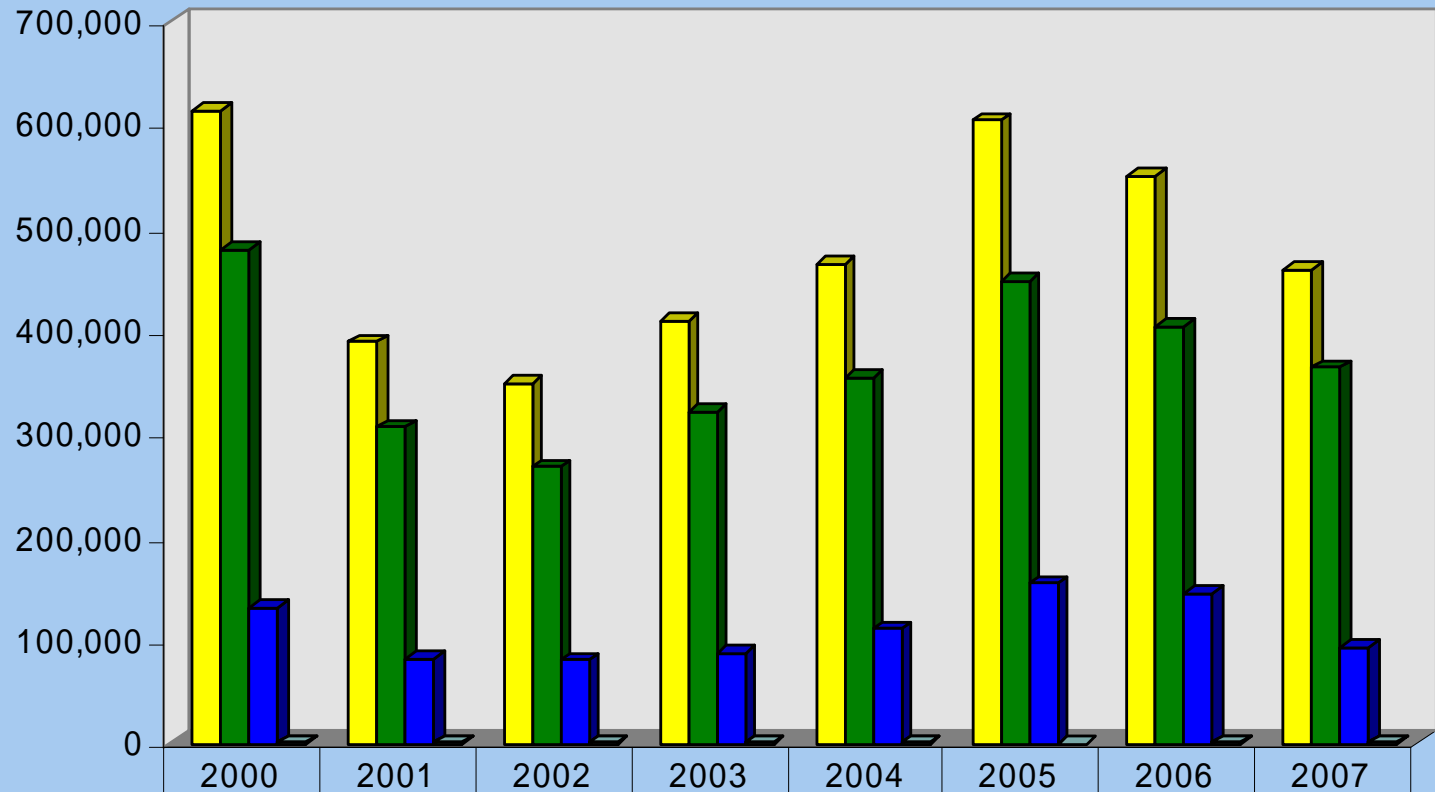
BRAZIL: Population at Ecological Risk of Malaria Transmission, 2000-2007



 Low Risk Population	22,741,000	12,464,000	13,553,000	153,532,000	153,532,000	174,683,000	17,269,000	44,005,994
 Medium Risk Population	5,404,000	4,020,000	4,929,000	11,099,000	11,099,000	2,753,000	3,922,000	3,881,310
 High Risk Population	3,452,000	2,001,000	1,926,000	1,456,000	1,456,000	4,371,000	2,413,000	2,240,316
 Total Population at Risk	31,597,000	18,485,000	20,408,000	166,087,000	166,087,000	181,807,000	23,604,000	50,127,620

*2004 data taken from
previous year

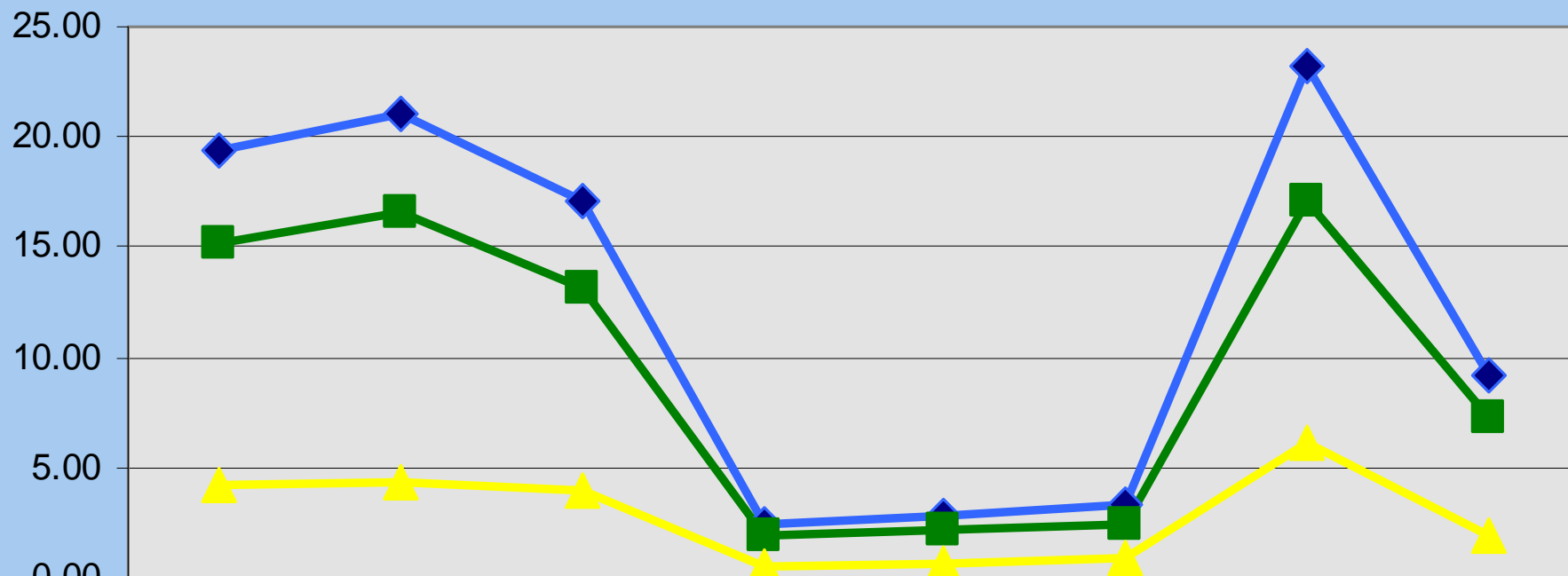
BRAZIL: Malaria Morbidity, 2000-2007



	2000	2001	2002	2003	2004	2005	2006	2007
■ No. of Cases	613,241	388,303	348,259	408,821	464,602	603,026	549,184	458,041
■ P. vivax	478,212	306,396	267,245	320,360	354,080	448,017	403,122	363,830
■ P. falciparum & mixed	131,616	81,333	80,188	88,163	110,305	154,835	145,827	93,160
□ P. malariae	932	574	826	298	217	174	235	235 *

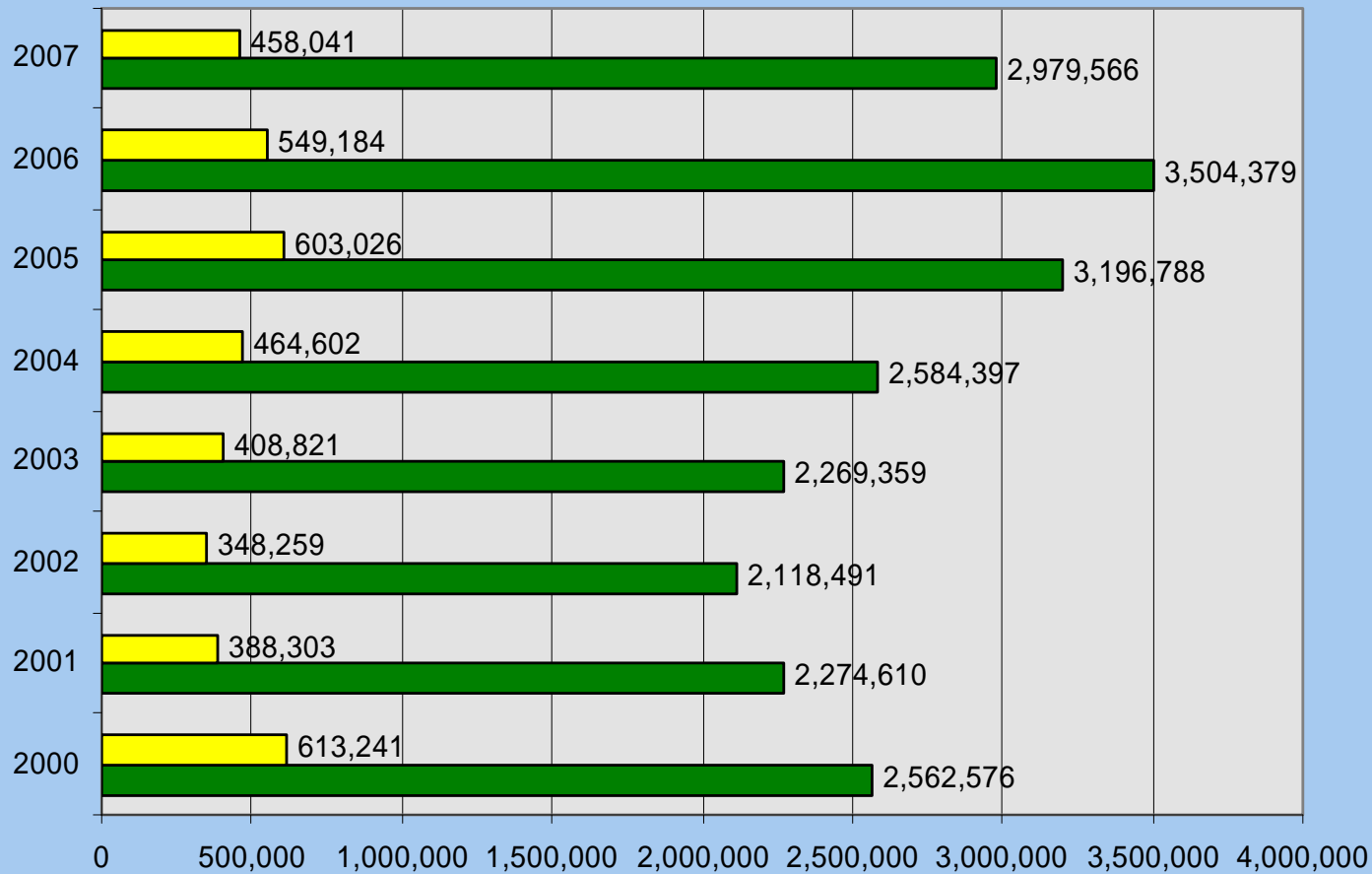
* Data taken from previous year

BRAZIL: Annual Parasitic Index (API), Annual Index of *P. vivax* (AVI) and Annual Index of *P. falciparum* (AFI), 2000-2007



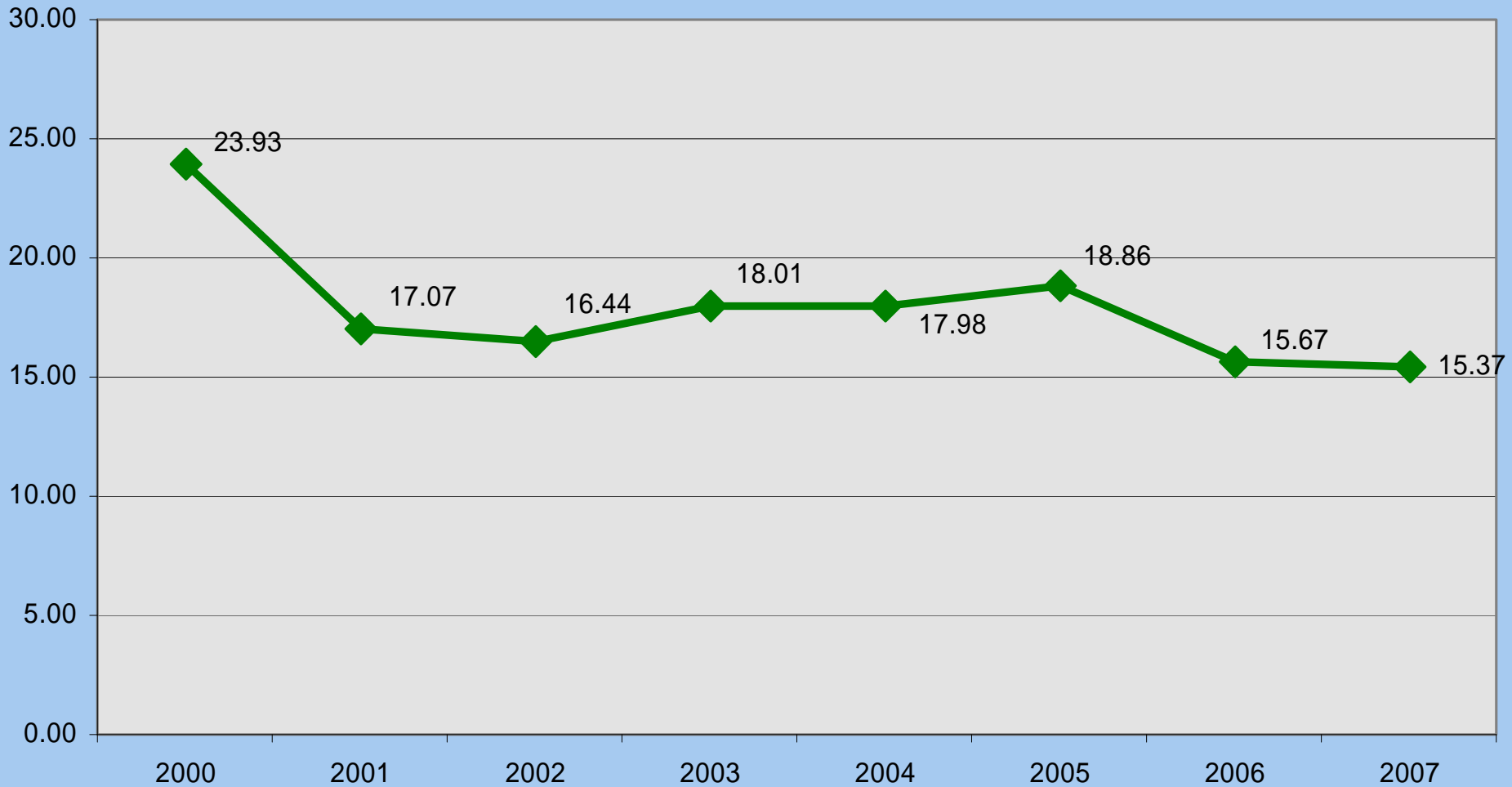
	2000	2001	2002	2003	2004	2005	2006	2007
◆ API	19.41	21.01	17.06	2.46	2.80	3.32	23.27	9.14
■ AVI	15.13	16.58	13.10	1.93	2.13	2.46	17.08	7.26
▲ AFI	4.17	4.40	3.93	0.53	0.66	0.85	6.18	1.86

BRAZIL: Malaria Microscopy, 2000-2007

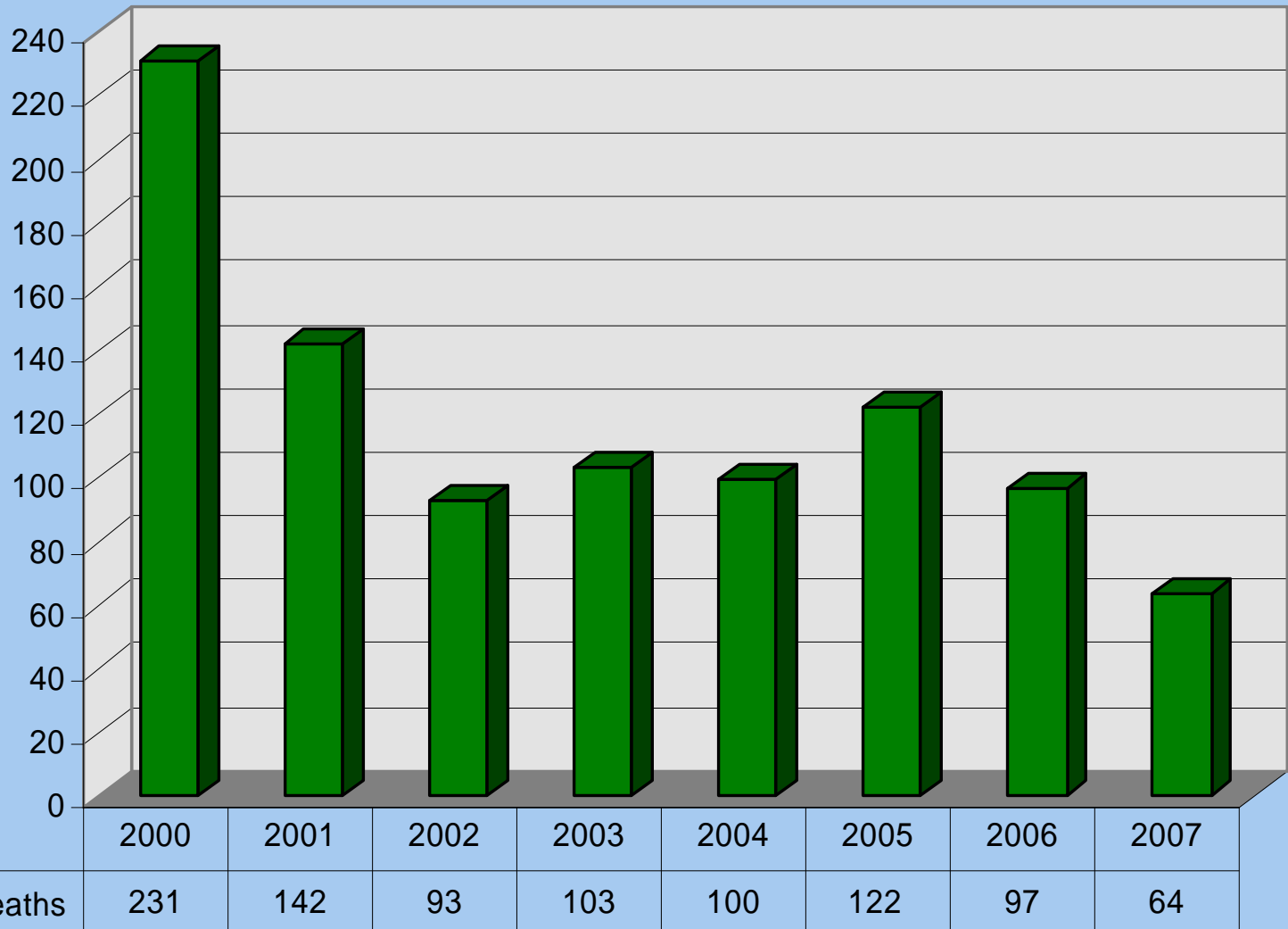


■ Blood Slides Positive
■ Blood Slides Examined

BRAZIL: Slide Positivity Rate (SPR), 2000-2007

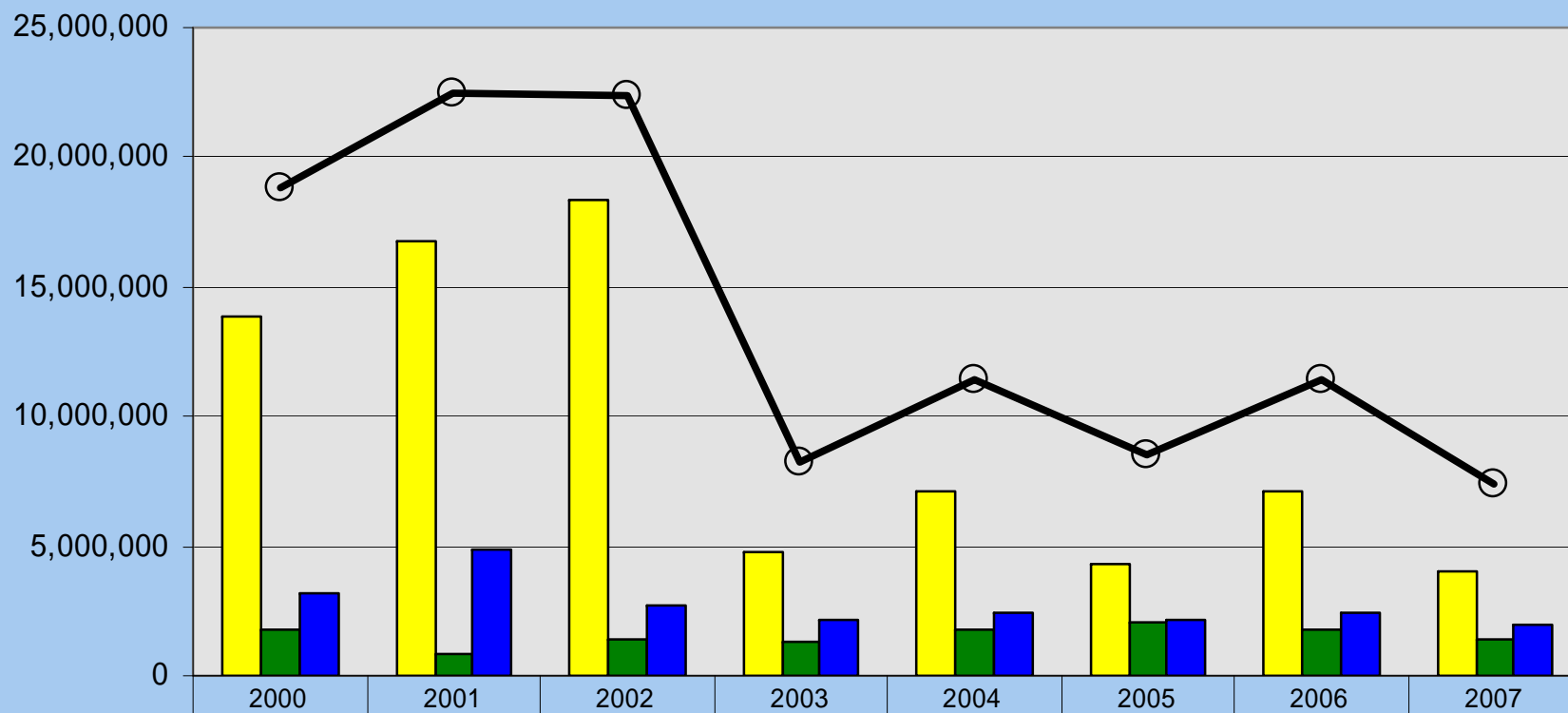


BRAZIL: Malaria Mortality, 2000-2007



COLOMBIA

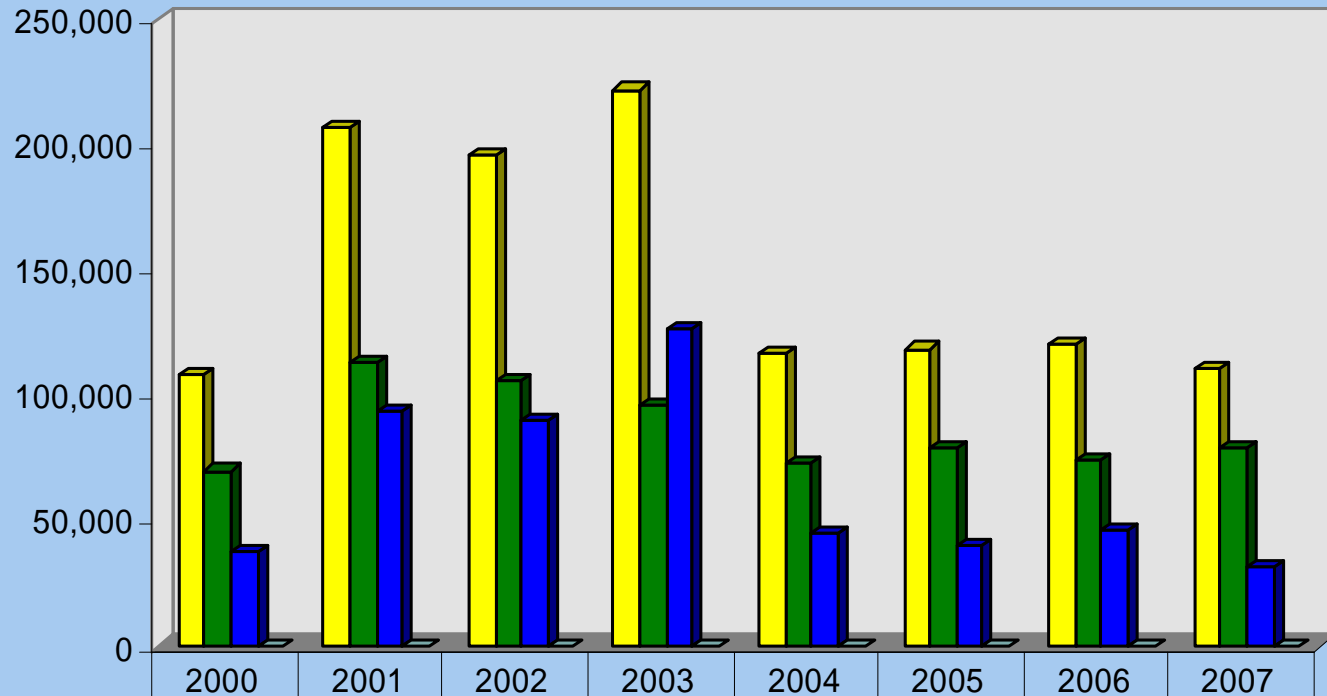
COLOMBIA: Population at Ecological Risk of Malaria Transmission, 2000-2007



	2000	2001	2002	2003	2004	2005	2006	2007
Low Risk Population	13,897,000	16,750,000	18,333,000	4,821,000	7,150,000	4,312,000	7,150,000	3,987,449
Medium Risk Population	1,757,000	831,000	1,358,000	1,278,000	1,809,000	2,045,000	1,809,000	1,429,604*
High Risk Population	3,165,000	4,900,000	2,713,000	2,185,000	2,457,000	2,128,000	2,456,000	1,942,104*
Total Population at Risk	18,819,000	22,481,000	22,404,000	8,284,000	11,416,000	8,485,000	11,415,000	7,359,157

* 2007 medium- and high-risk populations based on percentage of previous year's medium- and high-risk populations to total population at risk

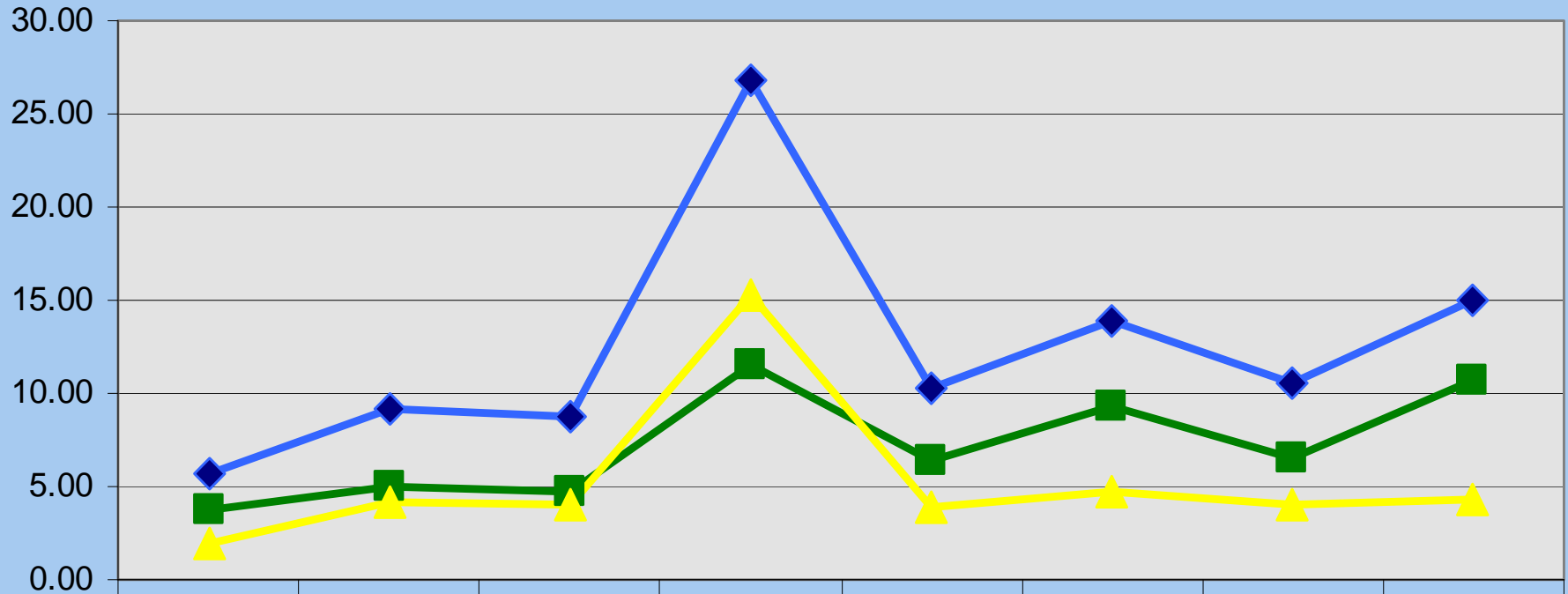
COLOMBIA: Malaria Morbidity, 2000-2007



	2000	2001	2002	2003	2004	2005	2006	2007
■ No. of Cases	107,616	206,195	195,719	221,834	116,872	118,163	120,096	110,389
■ P. vivax	69,612	112,562	105,931	95,484	72,424	78,437	73,949	79,028
■ P. falciparum & mixed	37,563	93,633	89,753	126,350	44,437	39,709	46,147	31,342
□ P. malariae	0	0	35	0	11	17	0	19 *

* Estimate based on difference between total cases and *P. vivax* / *P. falciparum* cases

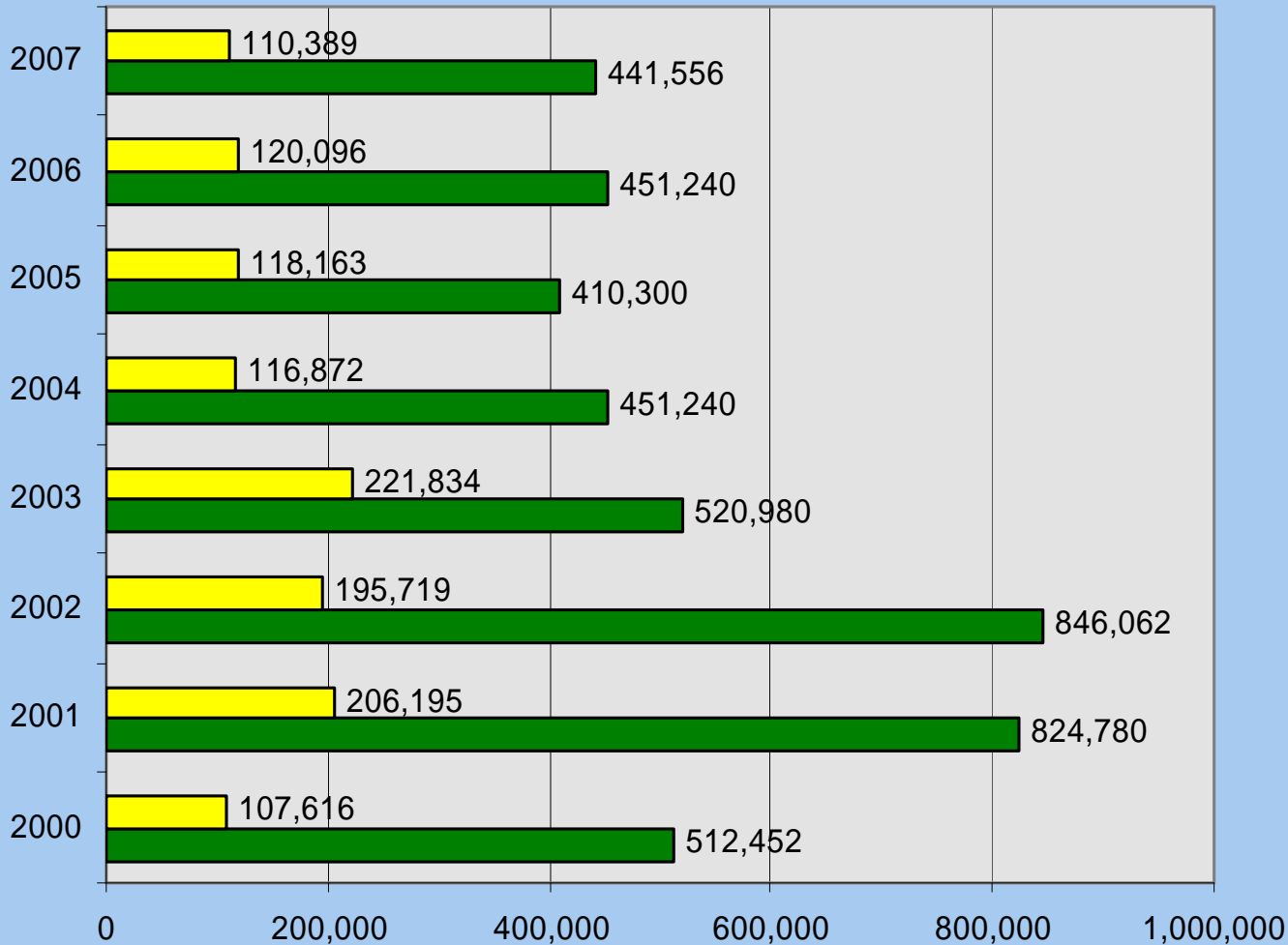
COLOMBIA: Annual Parasitic Index (API), Annual Index of *P. vivax* (AVI) and Annual Index of *P. falciparum* (AFI), 2000-2007



	2000	2001	2002	2003	2004	2005	2006	2007
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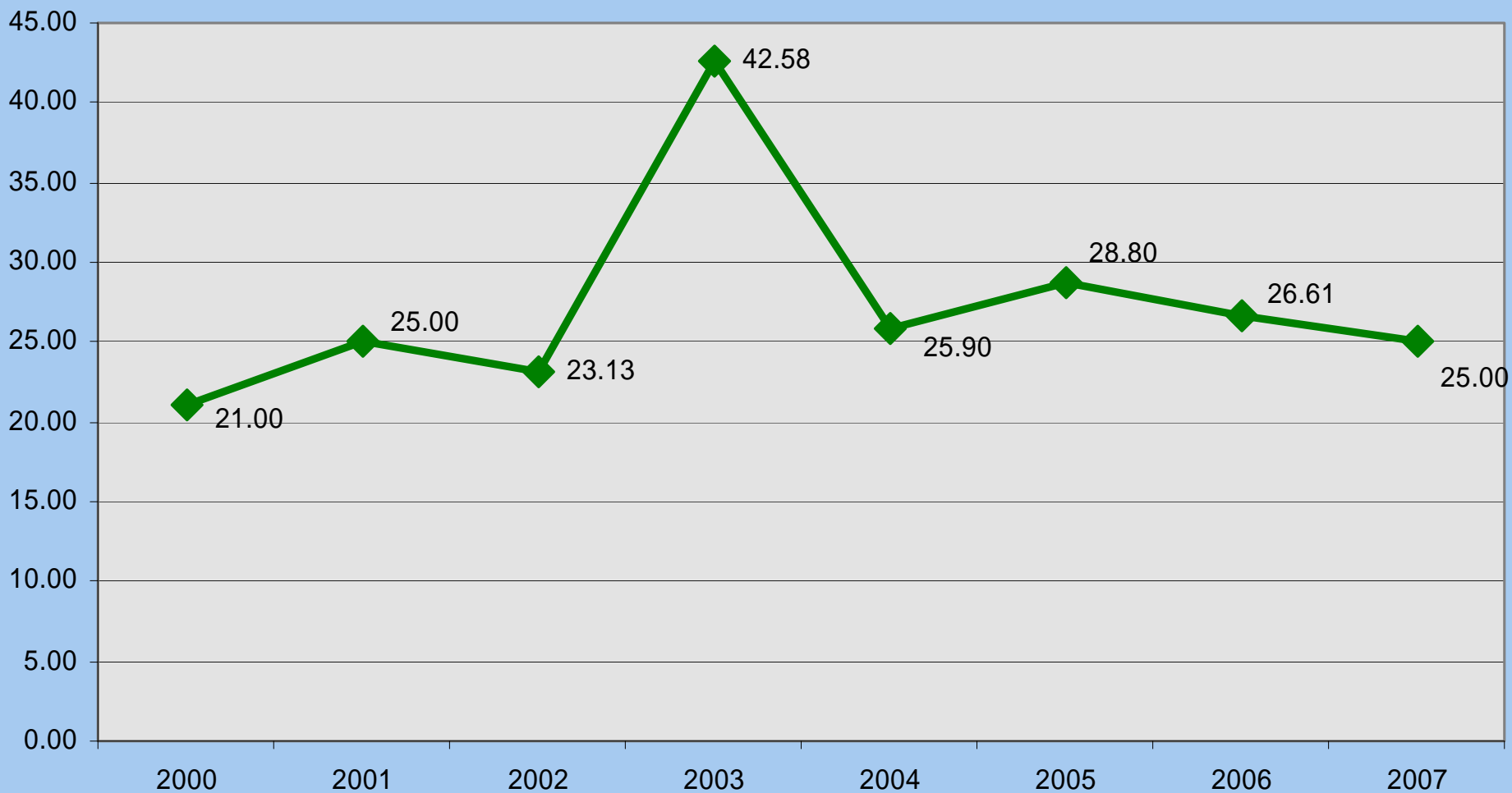
◆ API	5.72	9.17	8.74	26.78	10.24	13.93	10.52	15.00
■ AVI	3.70	5.01	4.73	11.53	6.34	9.24	6.48	10.74
▲ AFI	2.00	4.16	4.01	15.25	3.89	4.68	4.04	4.26

COLOMBIA: Malaria Microscopy, 2000-2007

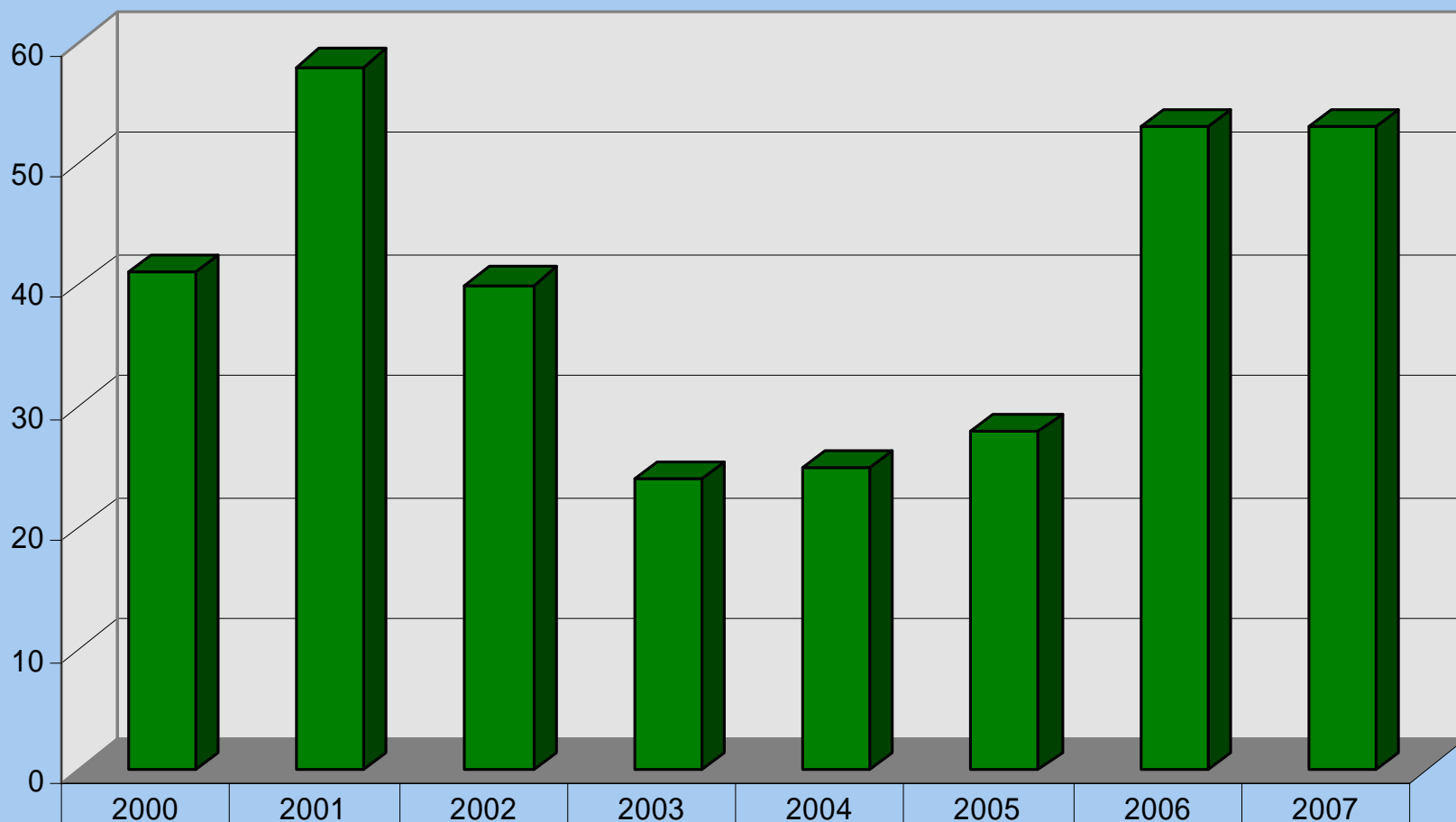


■ Blood Slides Positive
■ Blood Slides Examined

COLOMBIA: Slide Positivity Rate (SPR), 2000-2007



COLOMBIA: Malaria Mortality, 2000-2007

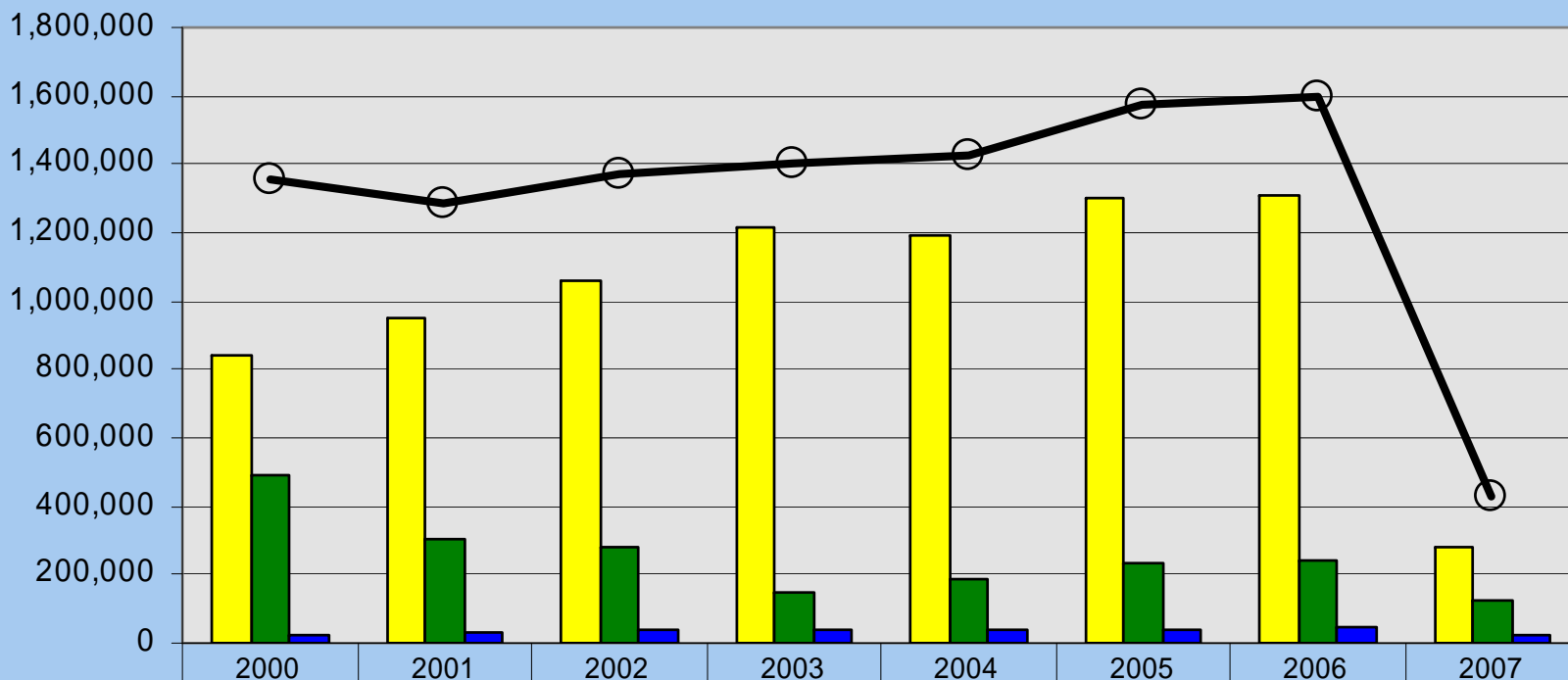






■ No. of Deaths	41	58	40	24	25	28	53	53 *
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* Data taken from previous year

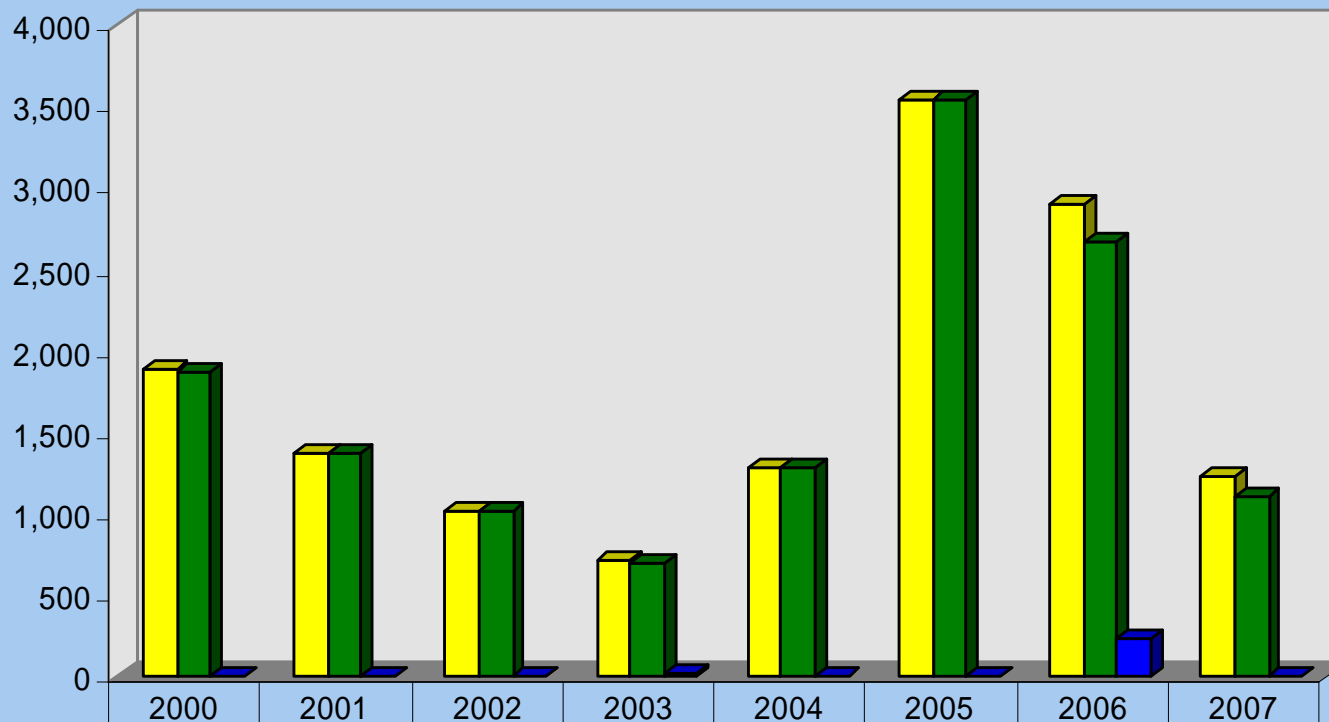
COSTA RICA

COSTA RICA: Population at Ecological Risk of Malaria Transmission, 2000-2007



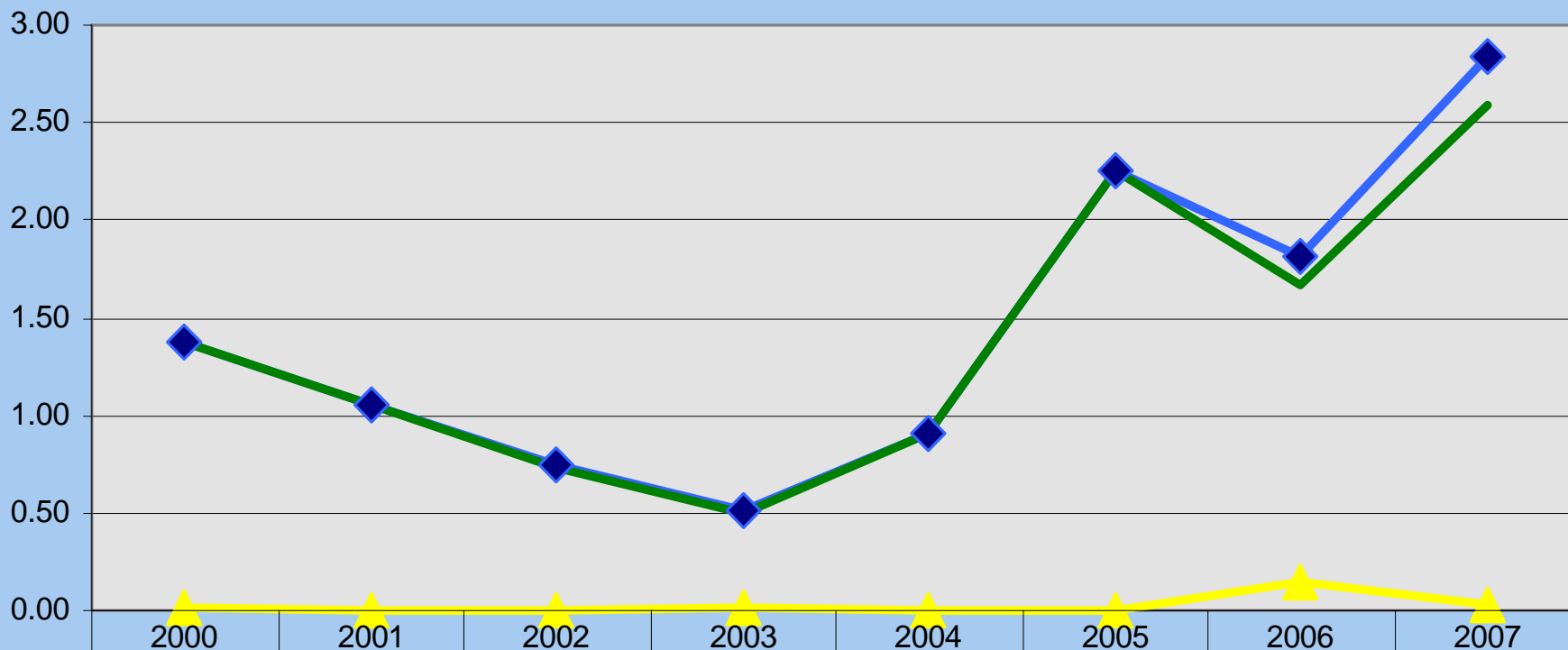
 Low Risk Population	841,000	948,000	1,057,000	1,215,000	1,196,000	1,298,000	1,312,000	280,530
 Medium Risk Population	493,000	307,000	281,000	149,000	187,000	235,000	240,000	126,634*
 High Risk Population	25,000	33,000	36,000	39,000	41,000	42,000	43,000	22,699*
 Total Population at Risk	1,359,000	1,288,000	1,374,000	1,403,000	1,424,000	1,575,000	1,595,000	429,863

COSTA RICA: Malaria Morbidity, 2000-2007



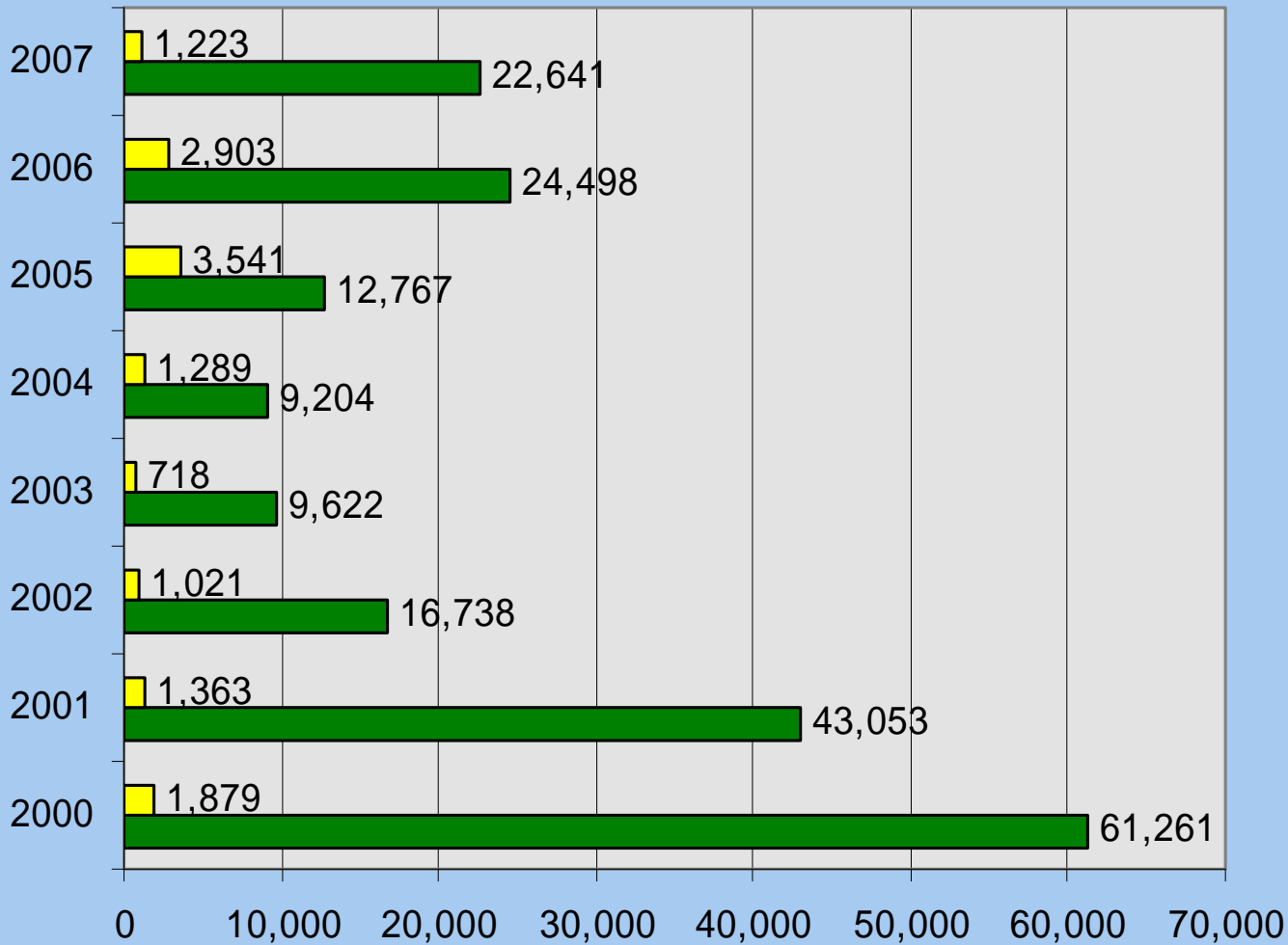
■ No. of Cases	1,879	1,363	1,021	718	1,289	3,541	2,903	1,223
■ P. vivax	1,867	1,362	1,008	704	1,284	3,538	2,667	1,112
■ P. falciparum & mixed	12	1	2	14	5	3	236	11

COSTA RICA: Annual Parasitic Index (API), Annual Index of *P. vivax* (AVI) and Annual Index of *P. falciparum* (AFI), 2000-2007



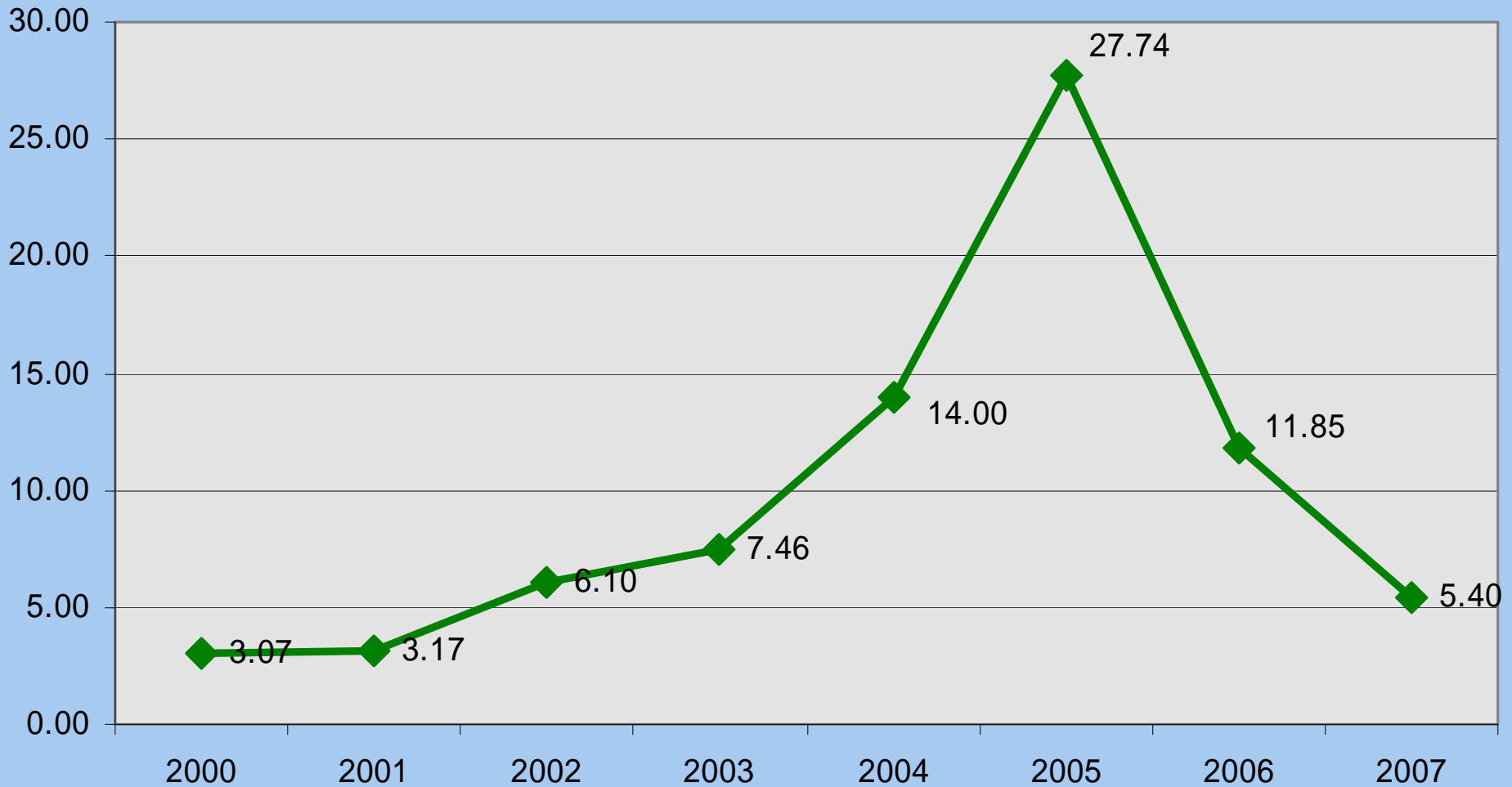
◆ API	1.38	1.06	0.74	0.51	0.91	2.25	1.82	2.85
■ AVI	1.37	1.06	0.73	0.50	0.90	2.25	1.67	2.59
▲ AFI	0.01	0.00	0.00	0.01	0.00	0.00	0.15	0.03

COSTA RICA: Malaria Microscopy, 2000-2007

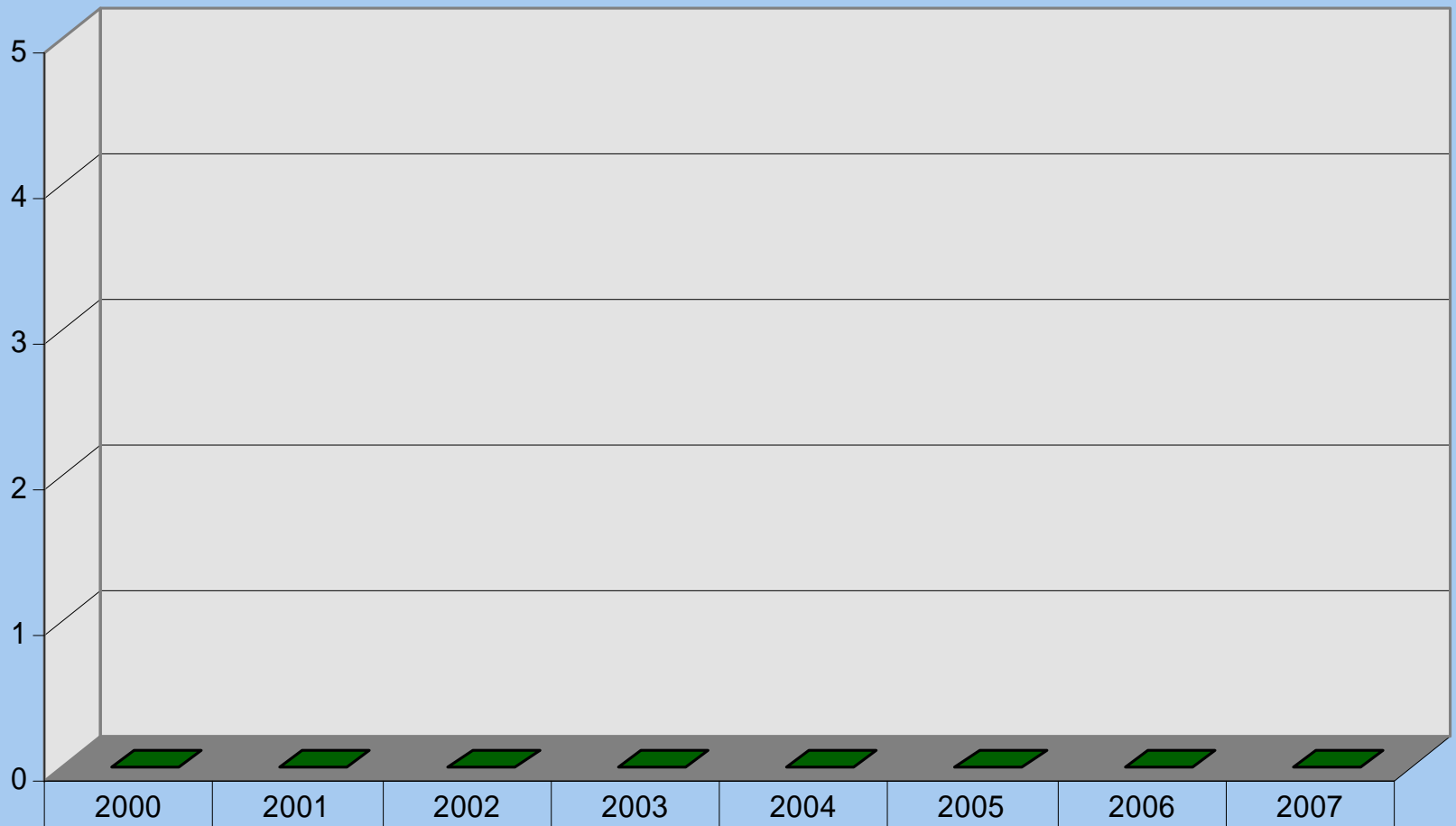


■ Blood Slide Positive
■ Blood Slides Examined

COSTA RICA: Slide Positivity Rate (SPR), 2000-2007



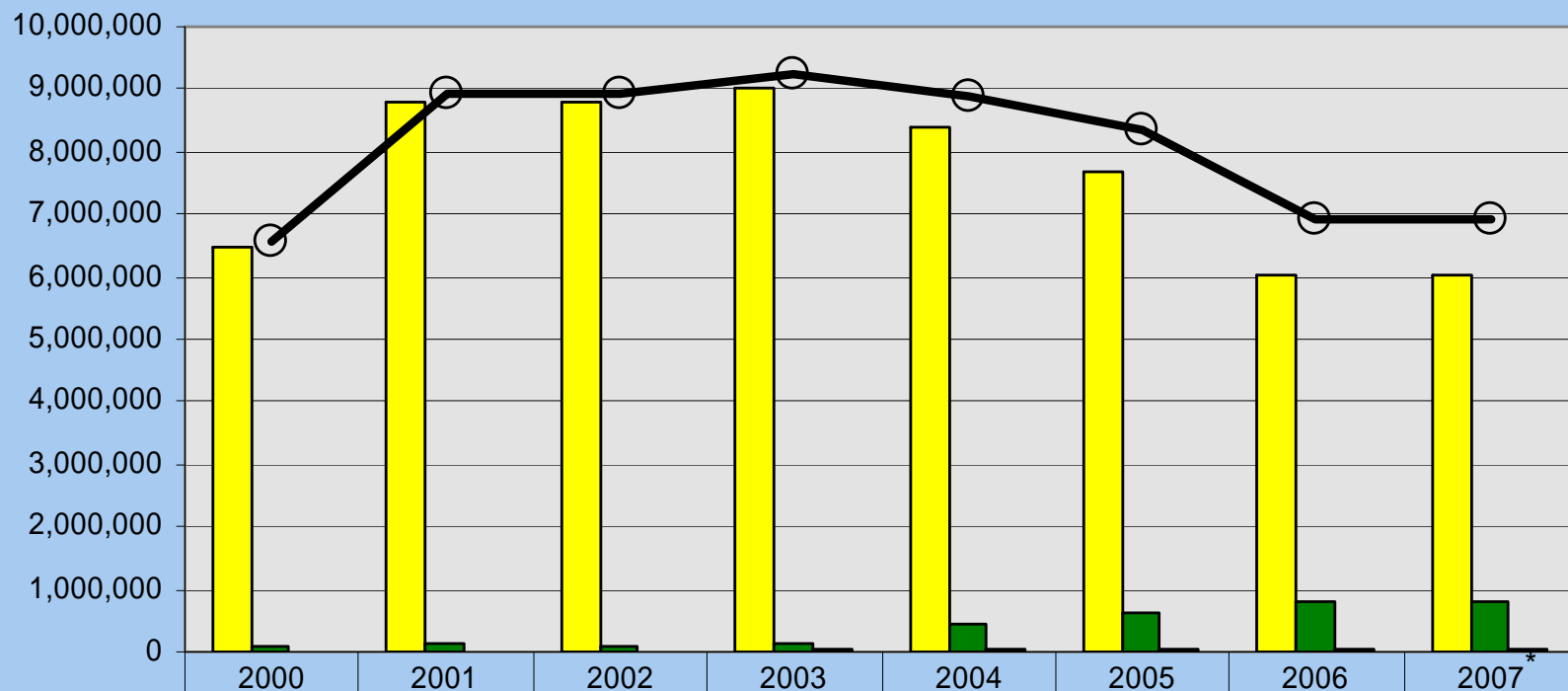
COSTA RICA: Malaria Mortality, 2000-2007







■ No. of Deaths	0	0	0	0	0 *	0 *	0 *	0 *
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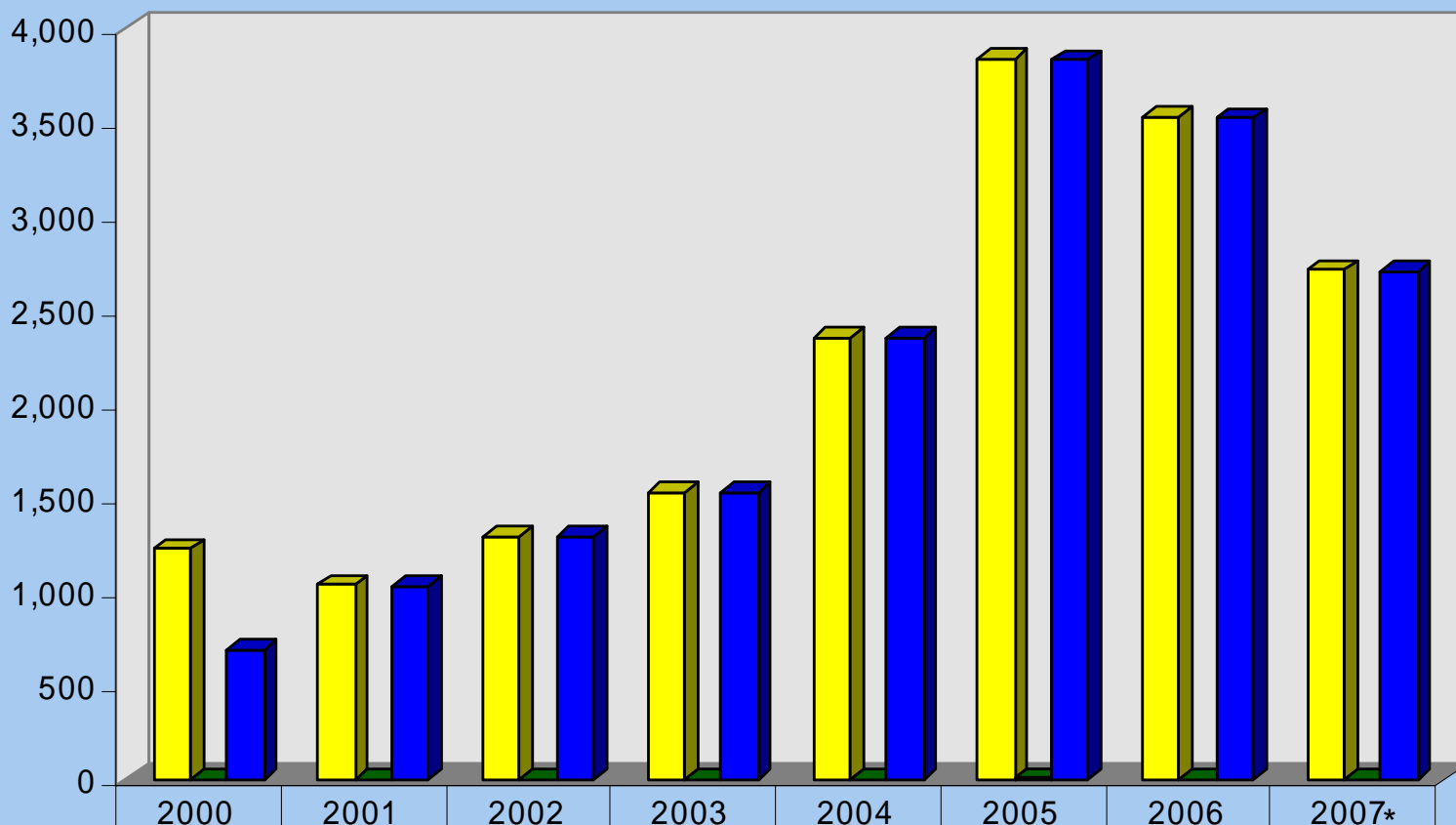
DOMINICAN REPUBLIC

DOMINICAN REPUBLIC: Population at Ecological Risk of Malaria Transmission, 2000-2007



 Low Risk Population	6,473,000	8,791,000	8,803,000	9,023,000	8,411,000	7,665,000	6,036,000	6,036,000
 Medium Risk Population	95,000	142,000	98,000	156,000	447,000	620,000	814,000	814,000
 High Risk Population	0	9,000	18,000	55,000	39,000	51,000	51,000	51,000
 Total Population at Risk	6,568,000	8,942,000	8,919,000	9,234,000	8,897,000	8,336,000	6,901,000	6,901,000

DOMINICAN REPUBLIC: Malaria Morbidity, 2000-2007



■ No. of Cases

■ P. vivax

■ P. falciparum & mixed

2000

2001

2002

2003

2004

2005

2006

2007*

1,233

1,038

1,296

1,529

2,355

3,837

3,525

2,711

4

4

4

1

2

8

6

5 **

693

1,034

1,292

1,528

2,353

3,829

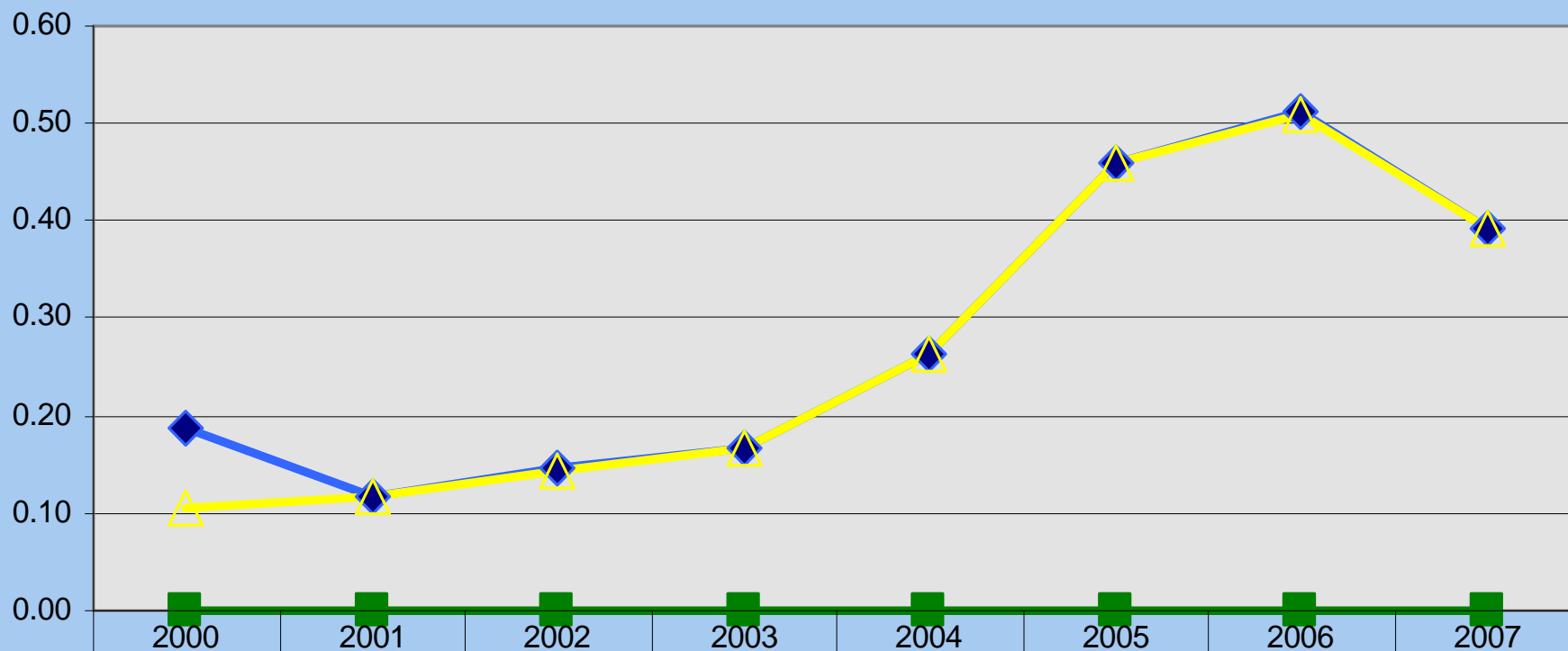
3,519

2,706**

* Based on preliminary report

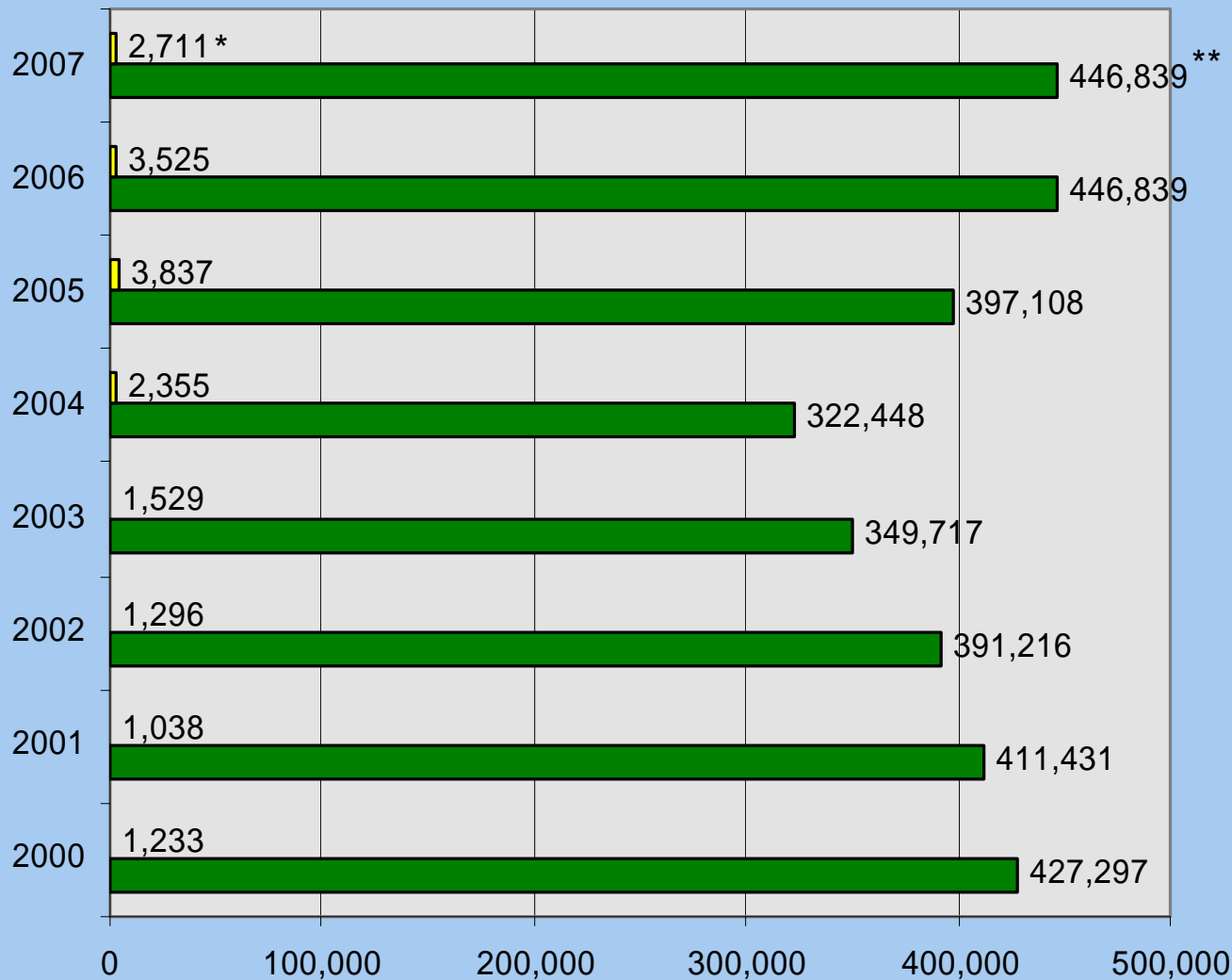
** Based on the percentage of previous year's breakdown of cases

DOMINICAN REPUBLIC: Annual Parasitic Index (API), Annual Index of *P. vivax* (AVI) and Annual Index of *P. falciparum* (AFI), 2000-2007



API	0.19	0.12	0.15	0.17	0.26	0.46	0.51	0.39
AVI	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AFI	0.11	0.12	0.14	0.17	0.26	0.46	0.51	0.39

DOMINICAN REPUBLIC: Malaria Microscopy, 2000-2007

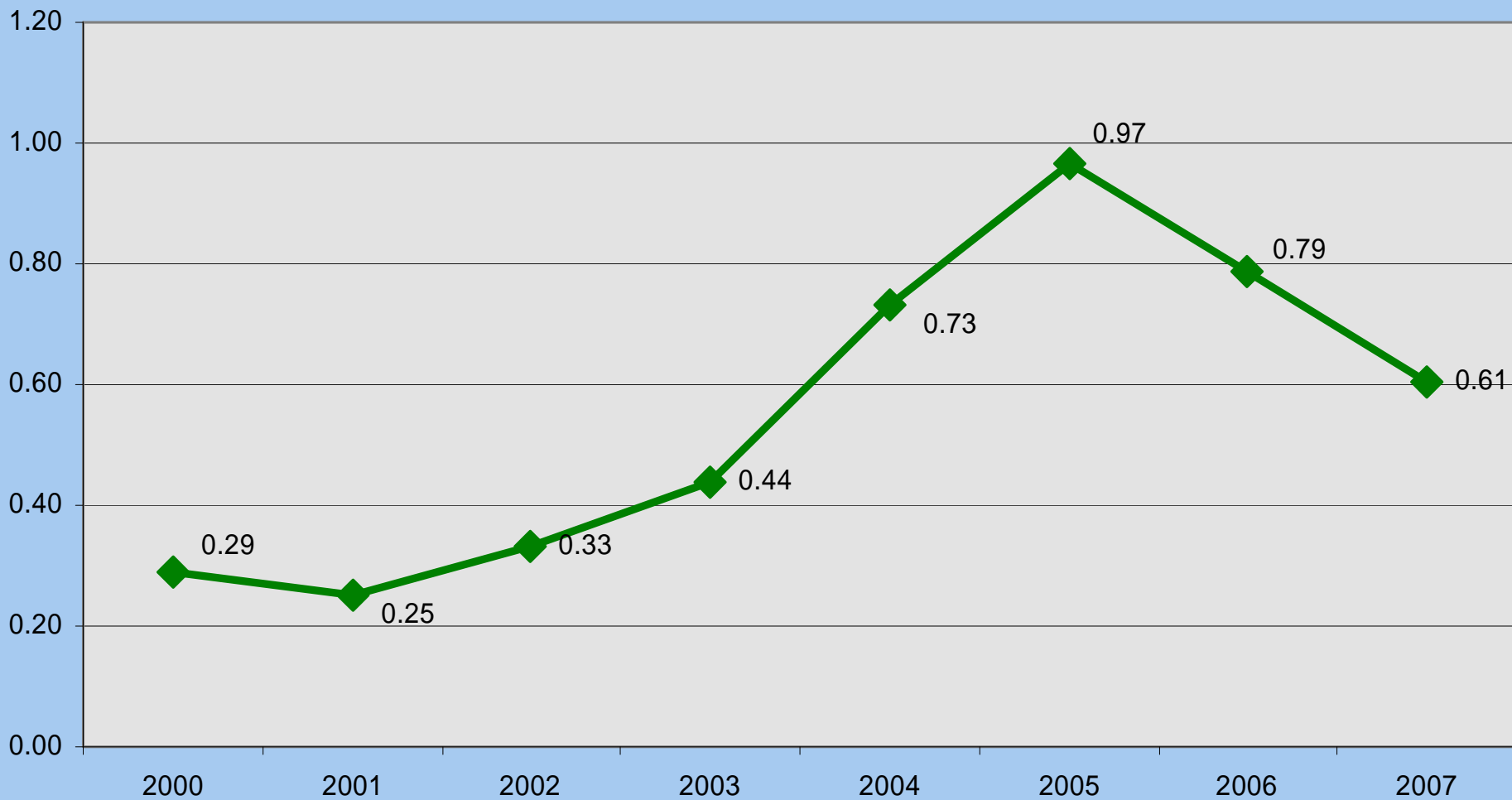


■ Blood Slides Positive
■ Blood Slides Examined

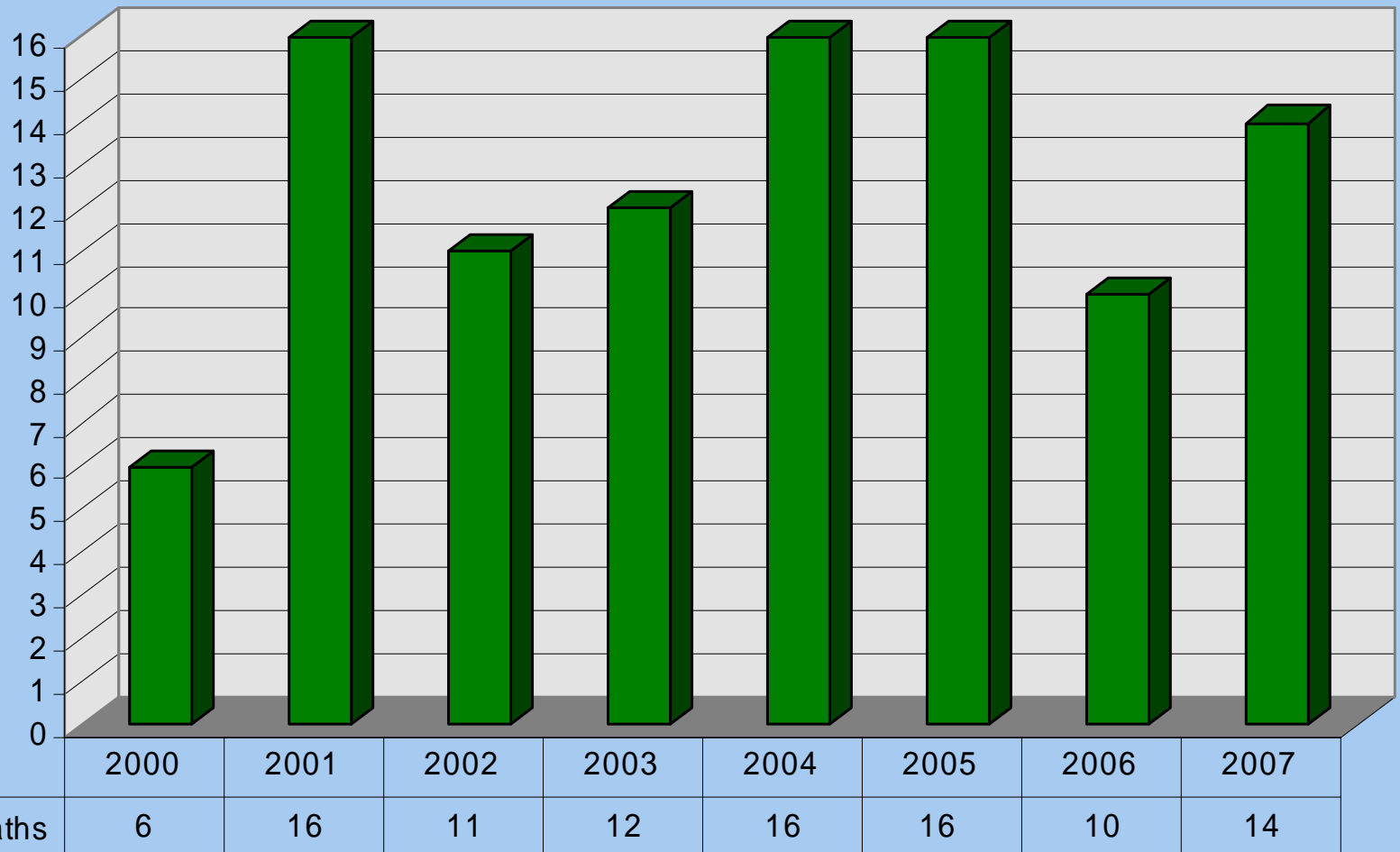
* Based on preliminary report

** Data taken from previous year

DOMINICAN REPUBLIC: Slide Positivity Rate (SPR), 2000-2007

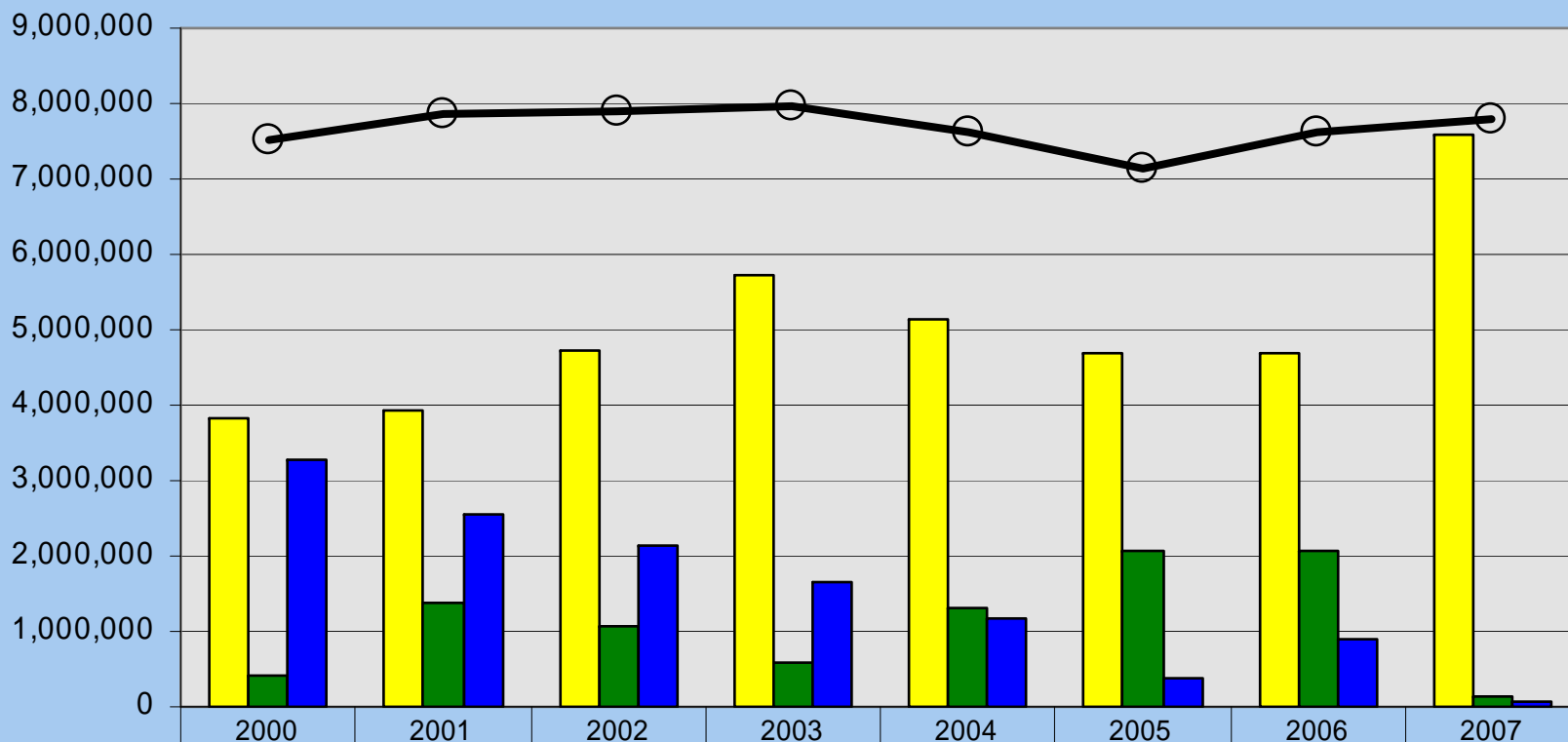



DOMINICAN REPUBLIC: Malaria Mortality, 2000-2007



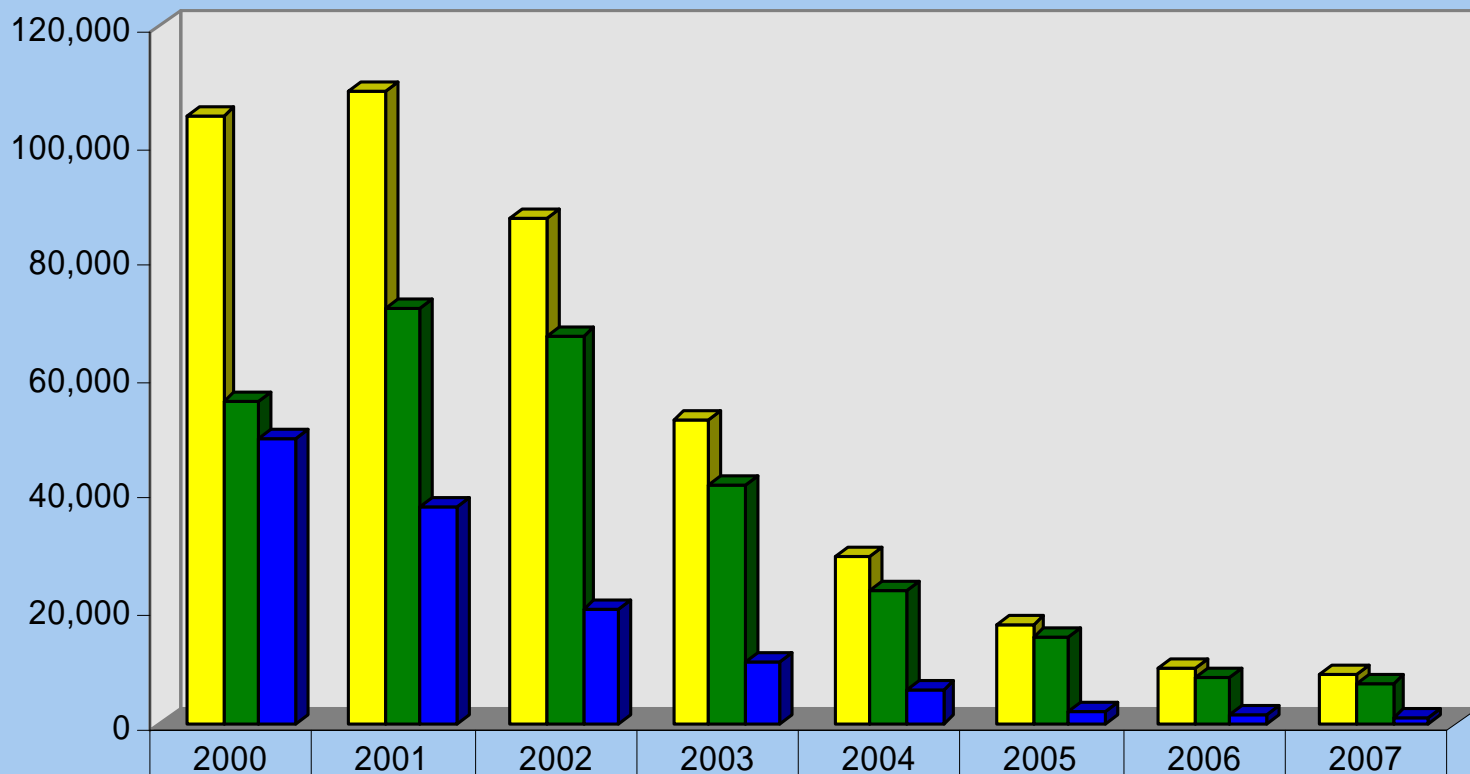
ECUADOR

ECUADOR: Population at Ecological Risk of Malaria Transmission, 2000-2007



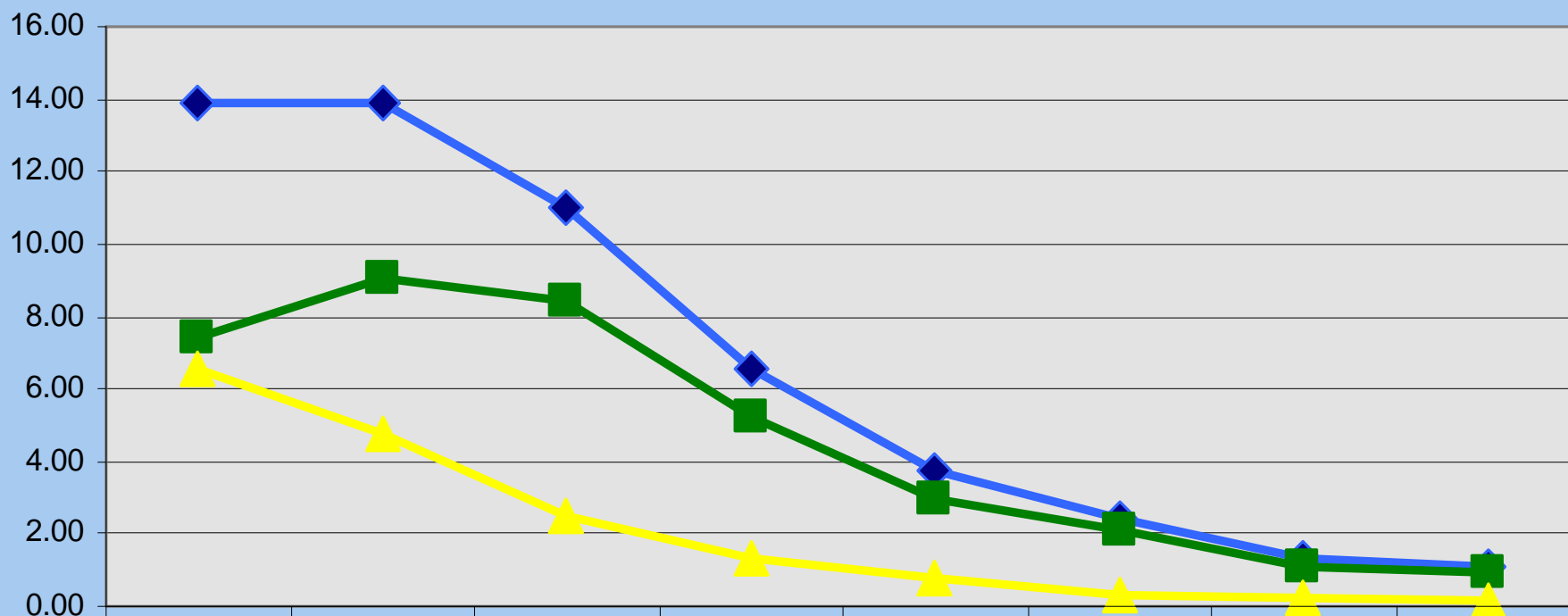
 Low Risk Population	3,836,000	3,931,000	4,717,000	5,708,000	5,145,000	4,687,000	4,680,000	7,595,085
 Medium Risk Population	400,000	1,383,000	1,056,000	587,000	1,317,000	2,060,000	2,070,000	140,103*
 High Risk Population	3,271,000	2,542,000	2,131,000	1,659,000	1,158,000	376,000	883,000	59,758*
 Total Population at Risk	7,507,000	7,856,000	7,904,000	7,954,000	7,620,000	7,123,000	7,633,000	7,794,946

ECUADOR: Malaria Morbidity, 2000-2007



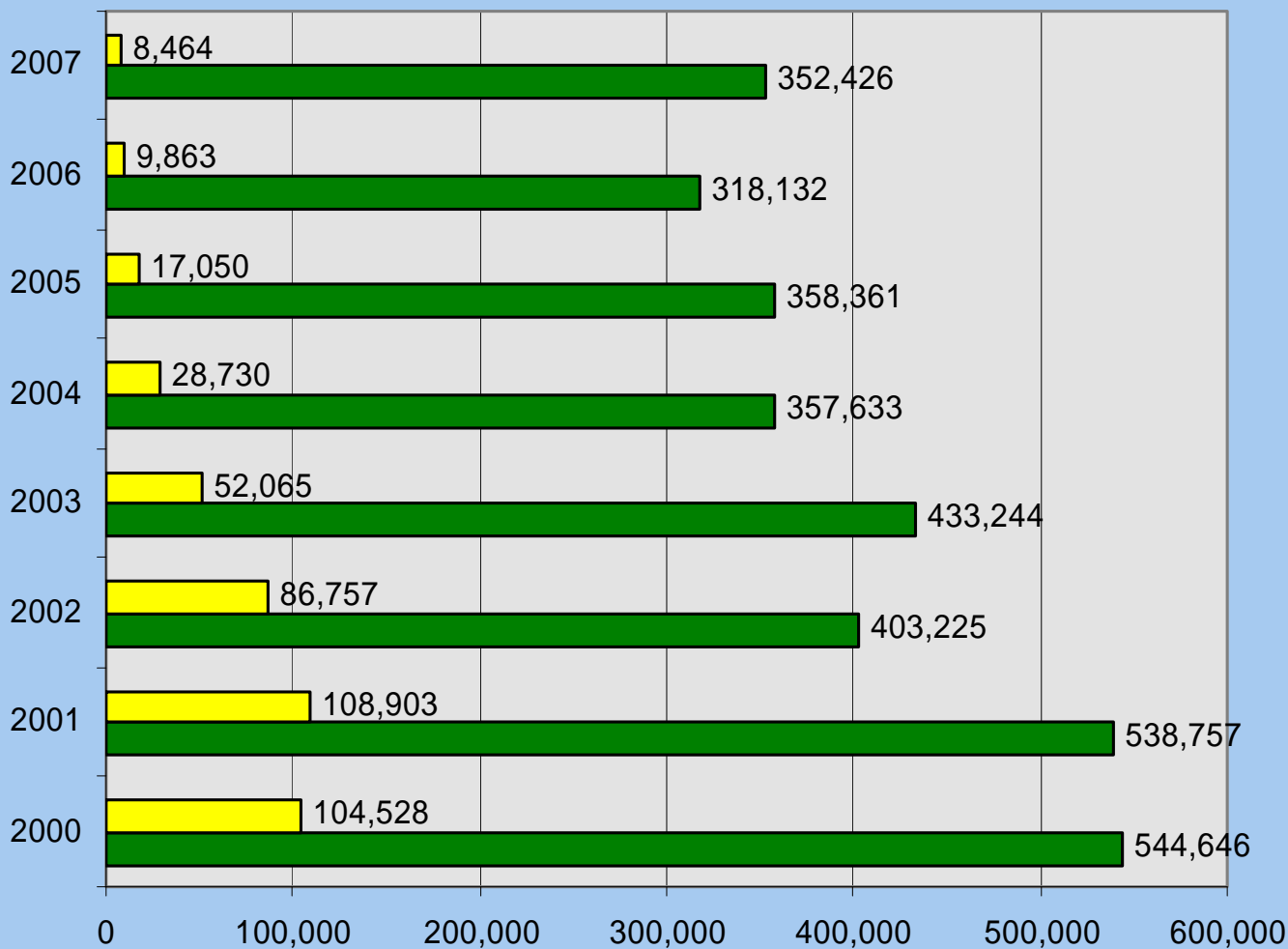
■ No. of Cases	104,528	108,903	86,757	52,065	28,730	17,050	9,863	8,464
■ P. vivax	55,624	71,412	66,742	41,341	22,839	14,836	8,267	7,306
■ P. falciparum & mixed	48,974	37,491	20,015	10,724	5,891	2,212	1,596	1,158

ECUADOR: Annual Parasitic Index (API), Annual Index of *P. vivax* (AVI) and Annual Index of *P. falciparum* (AFI), 2000-2007



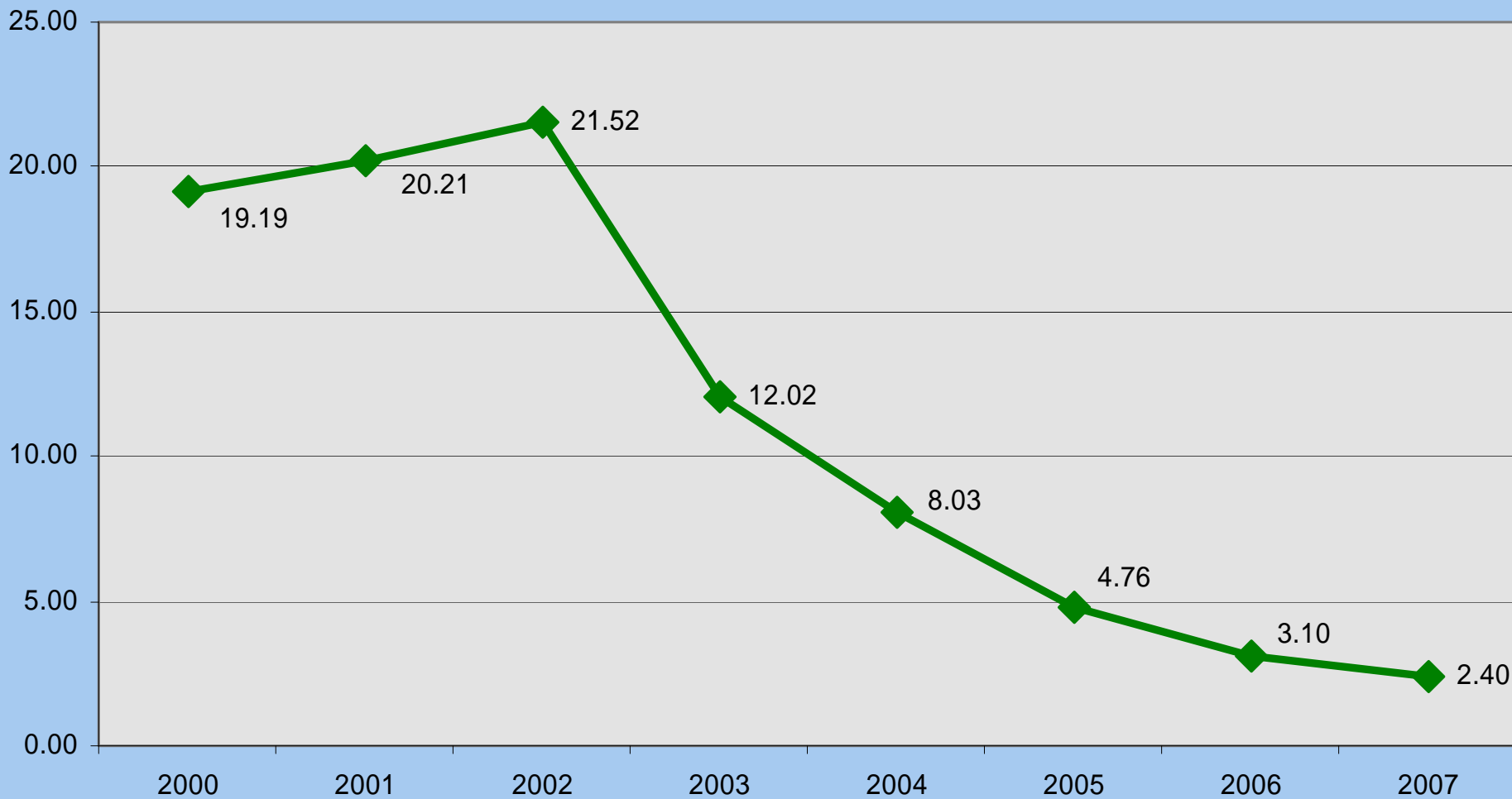
	2000	2001	2002	2003	2004	2005	2006	2007
◆ API	13.92	13.86	10.98	6.55	3.77	2.39	1.29	1.09
■ AVI	7.41	9.09	8.44	5.20	3.00	2.08	1.08	0.94
▲ AFI	6.52	4.77	2.53	1.35	0.77	0.31	0.21	0.15

ECUADOR: Malaria Microscopy, 2000-2007

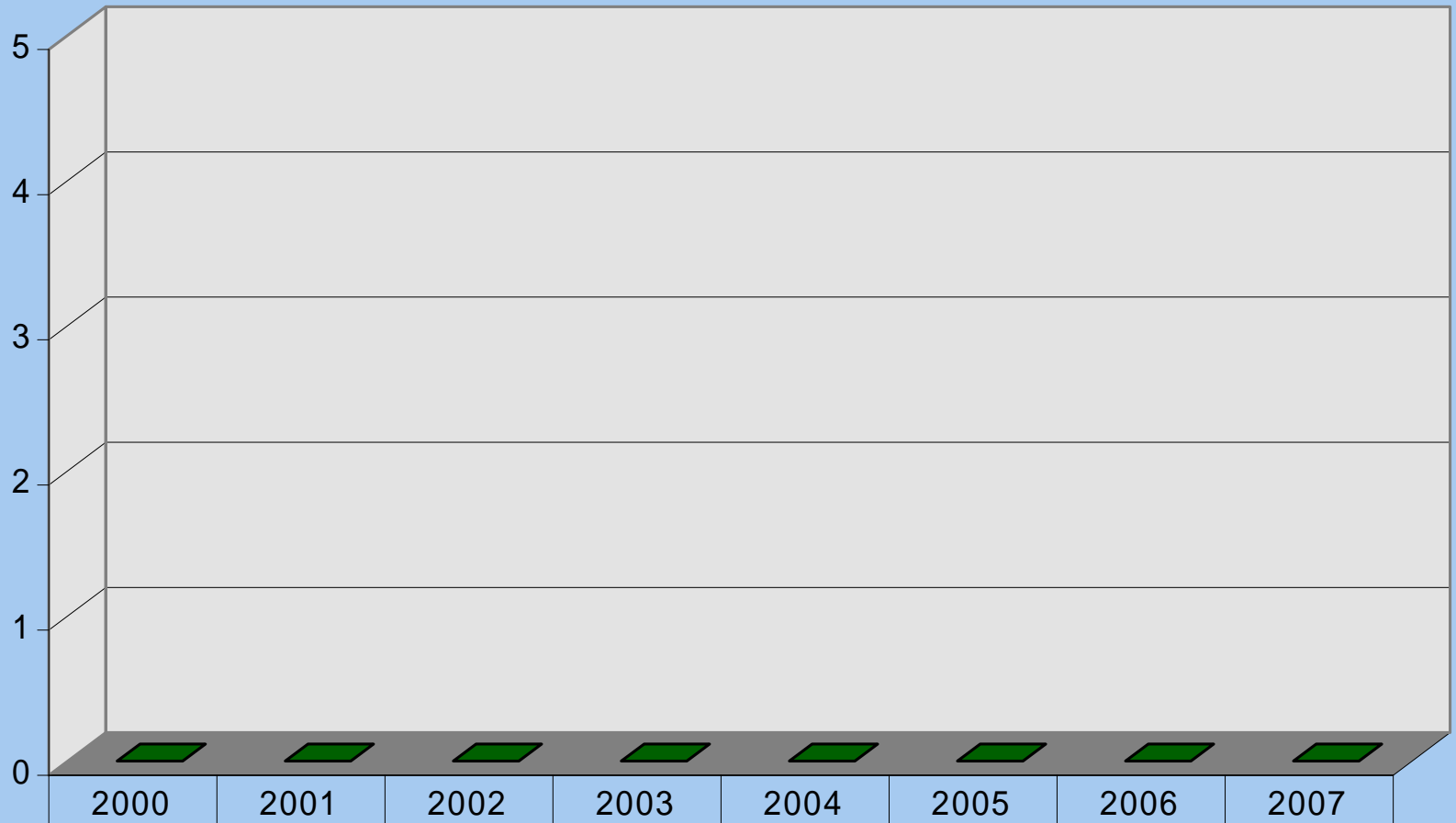


■ Blood Slides Positive
■ Blood Slides Examined

ECUADOR: Slide Positivity Rate (SPR), 2000-2007



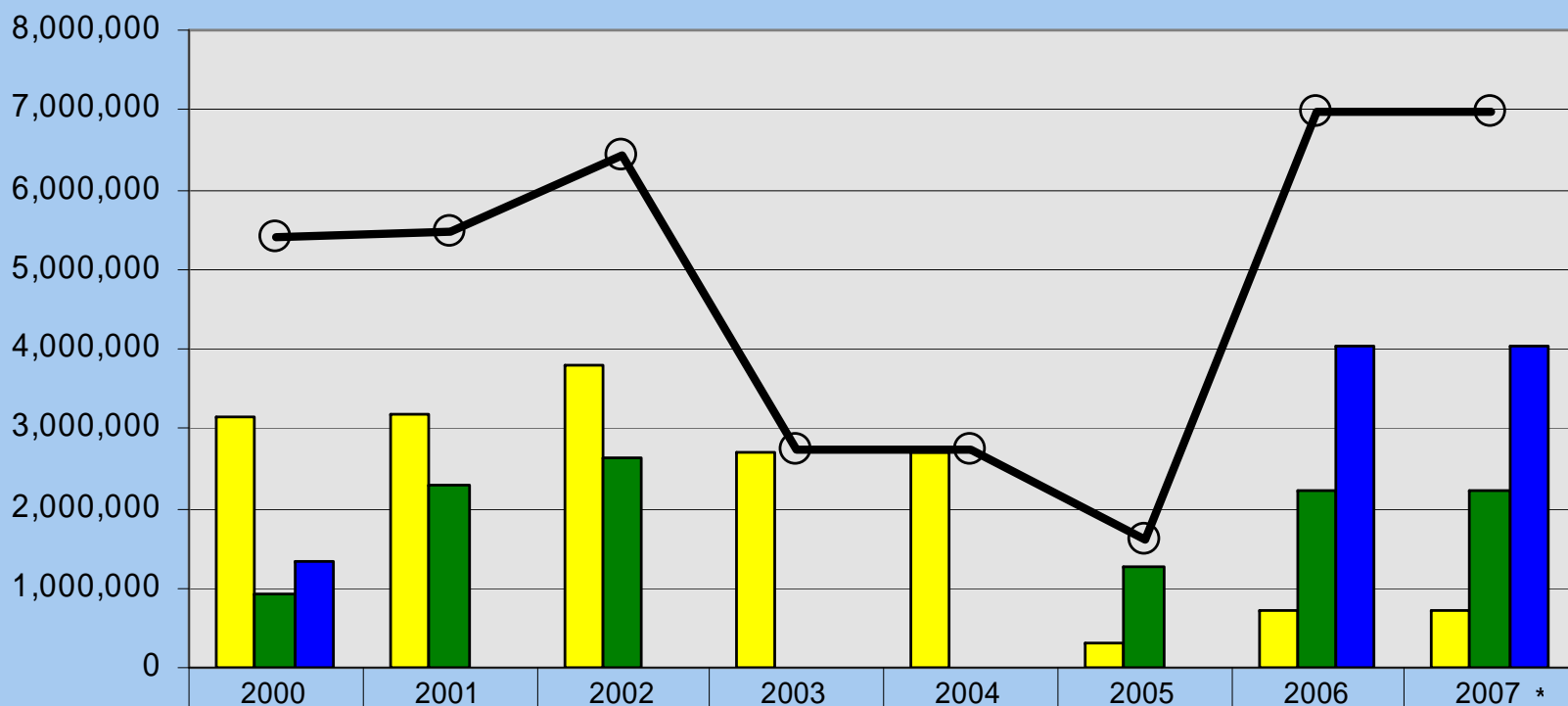
ECUADOR: Malaria Mortality, 2000-2007







No. of Deaths	2000	2001	2002	2003	2004	2005	2006	2007
	0	0	0	0	0 *	0 *	0 *	0 *

EL SALVADOR

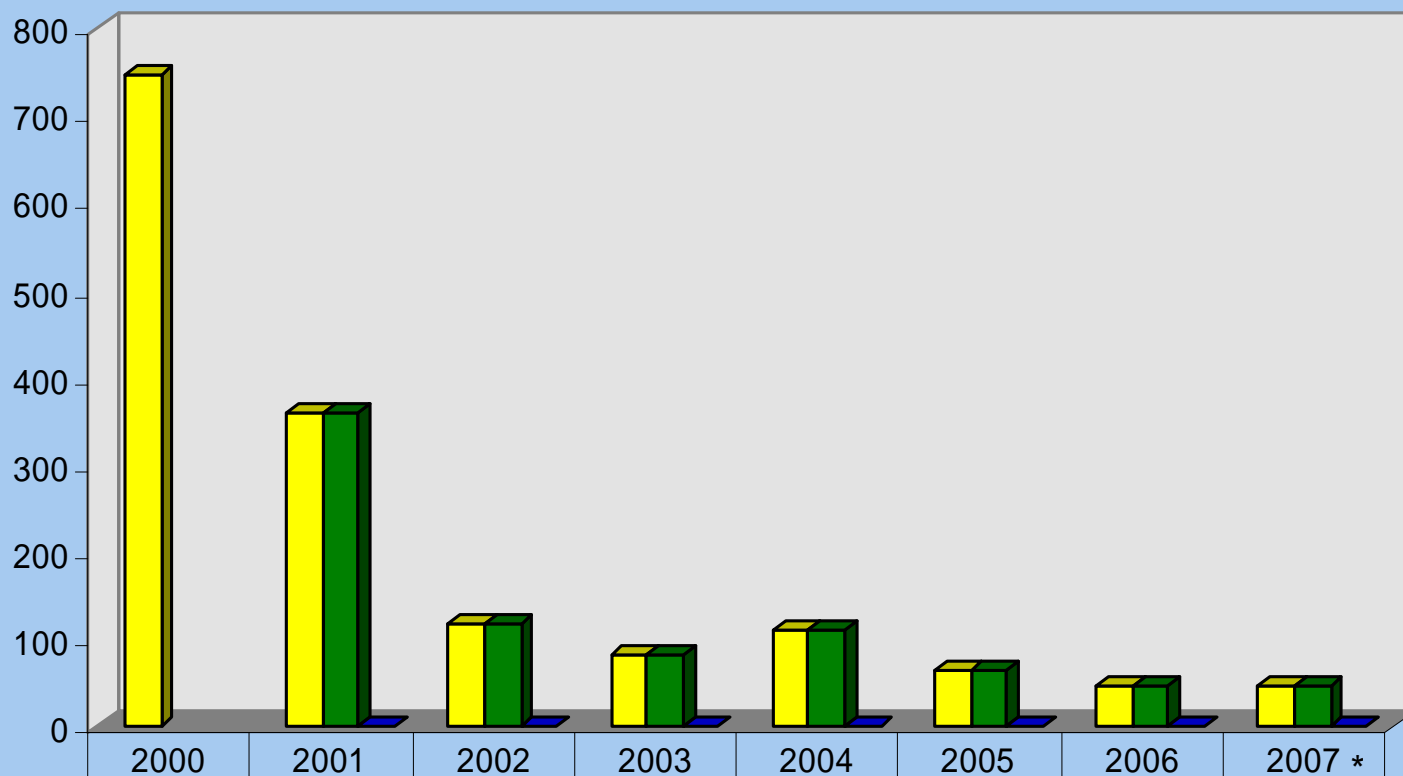
EL SALVADOR: Population at Ecological Risk of Malaria Transmission, 2000-2007



 Low Risk Population	3,143,000	3,179,000	3,789,000	2,714,000	2,714,000	318,000	725,000	725,000
 Medium Risk Population	907,000	2,283,000	2,641,000	5,000	5,000	1,273,000	2,234,000	2,234,000
 High Risk Population	1,350,000	0	0	0	0	0	4,032,000	4,032,000
 Total Population at Risk	5,400,000	5,462,000	6,430,000	2,719,000	2,719,000	1,591,000	6,991,000	6,991,000

* Data taken from previous year

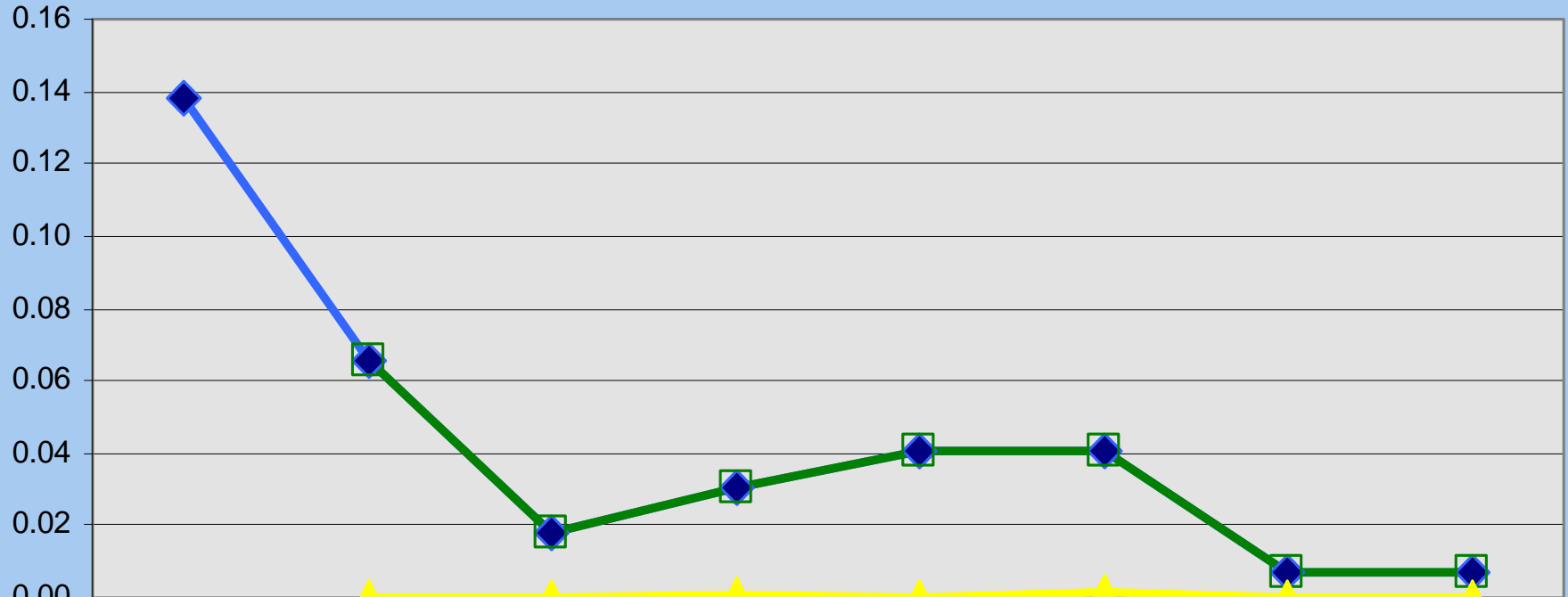
EL SALVADOR: Malaria Morbidity, 2000-2007



	2000	2001	2002	2003	2004	2005	2006	2007 *
■ No. of Cases	745	360	117	83	111	65	48	48
■ P. vivax	...	360	117	83	111	65	48	48
■ P. falciparum & mixed	...	2	0	2	1	2	1	1

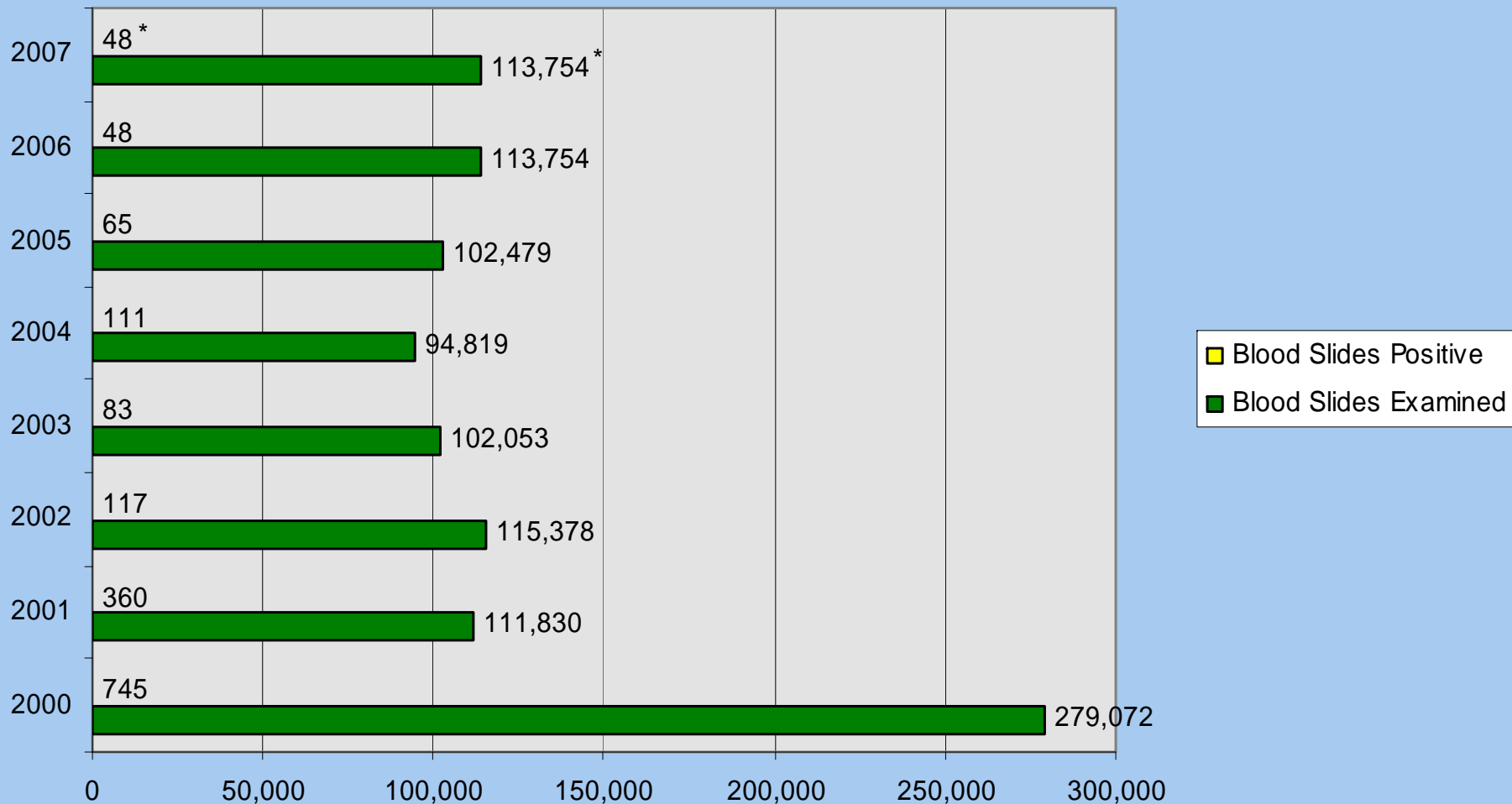
* Data taken from previous year

EL SALVADOR: Annual Parasitic Index (API), Annual Index of *P. vivax* (AVI) and Annual Index of *P. falciparum* (AFI), 2000-2007



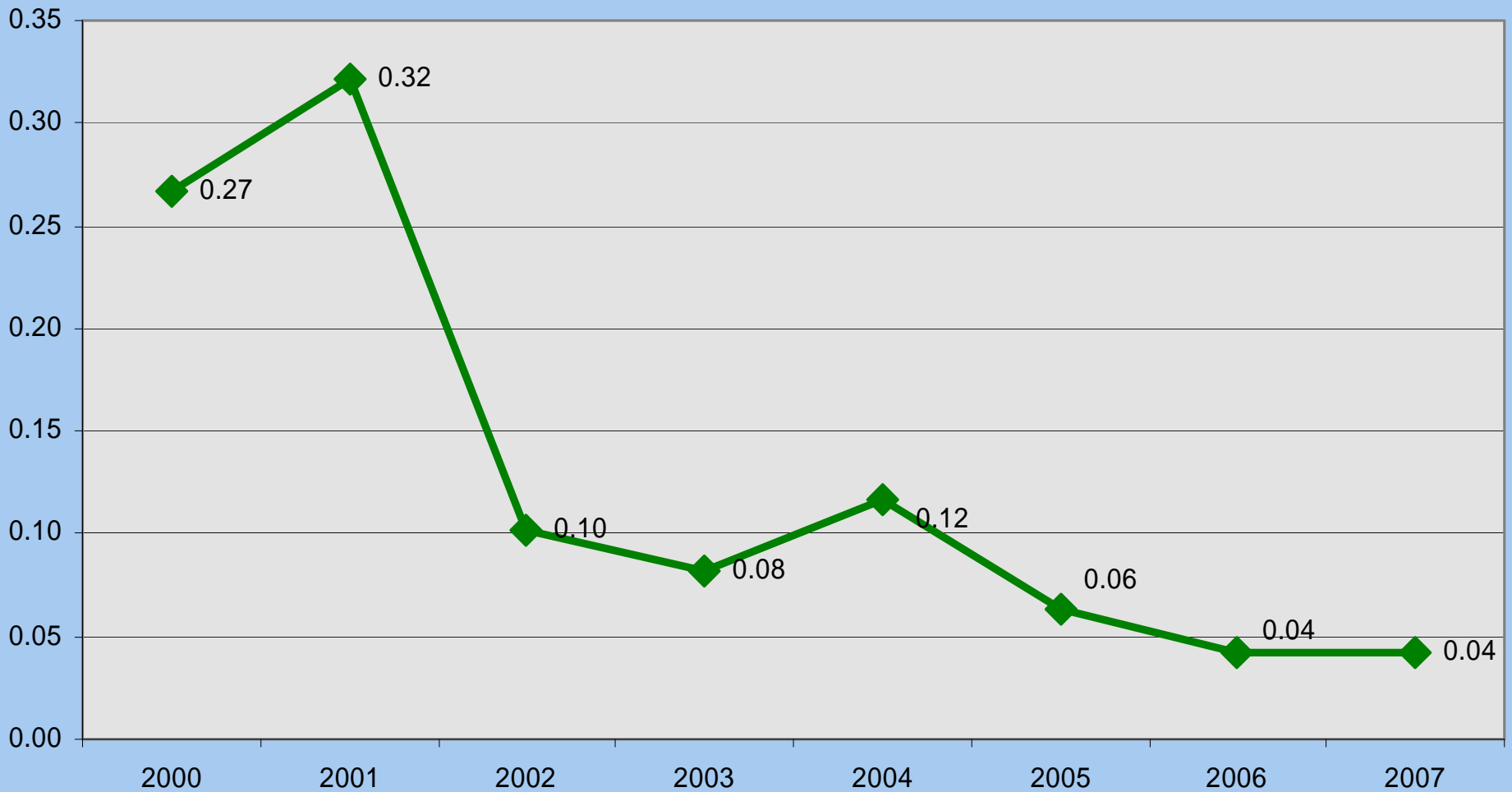
	2000	2001	2002	2003	2004	2005	2006	2007
◆ API	0.14	0.07	0.02	0.03	0.04	0.04	0.01	0.01
■ AVI	...	0.07	0.02	0.03	0.04	0.04	0.01	0.01
▲ AFI	...	0.00	0.00	0.00	0.00	0.00	0.00	0.00

EL SALVADOR: Malaria Microscopy, 2000-2007

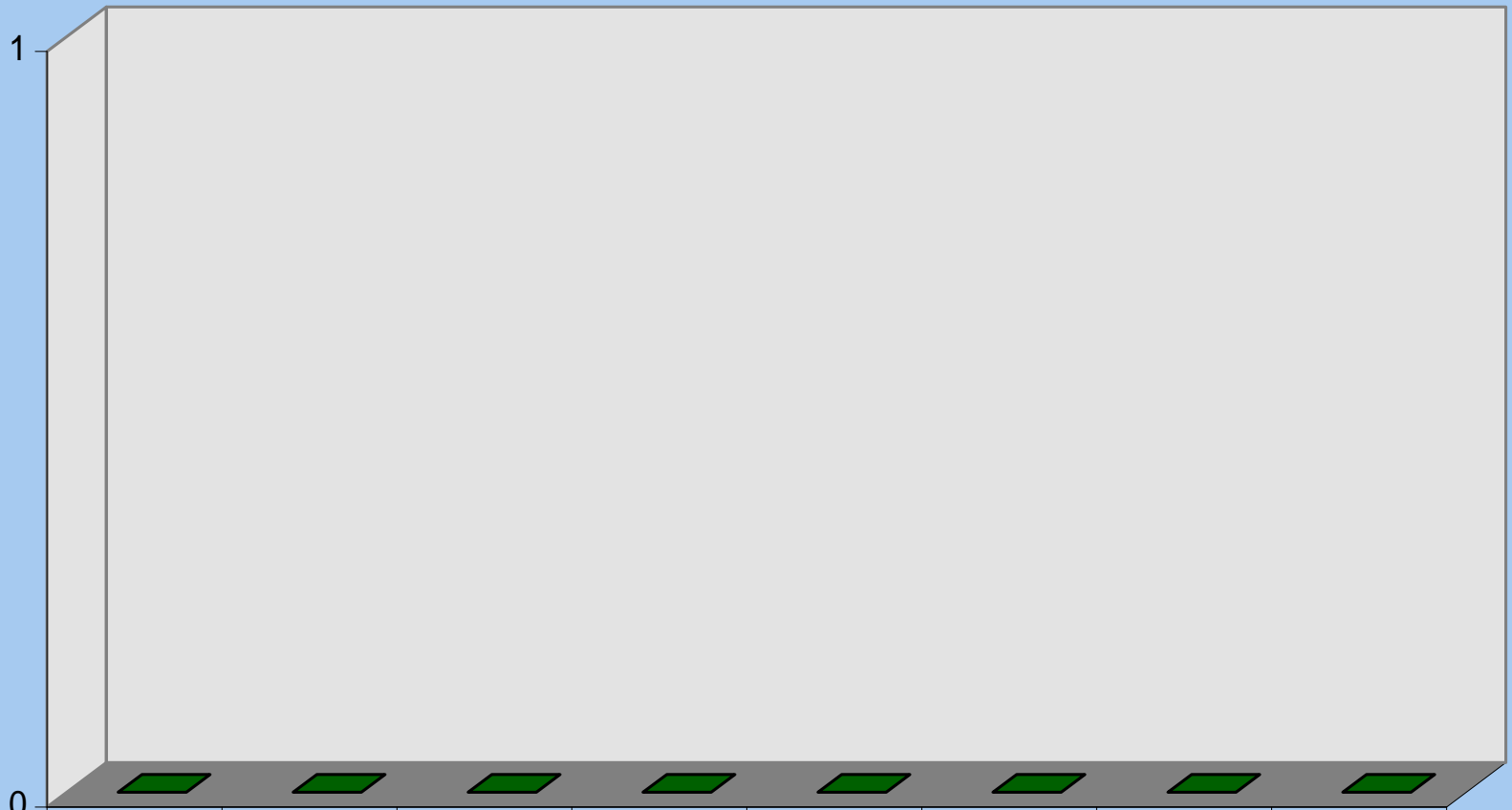


* Data taken from previous year

EL SALVADOR: Slide Positivity Rate (SPR), 2000-2007



EL SALVADOR: Malaria Mortality, 2000-2007



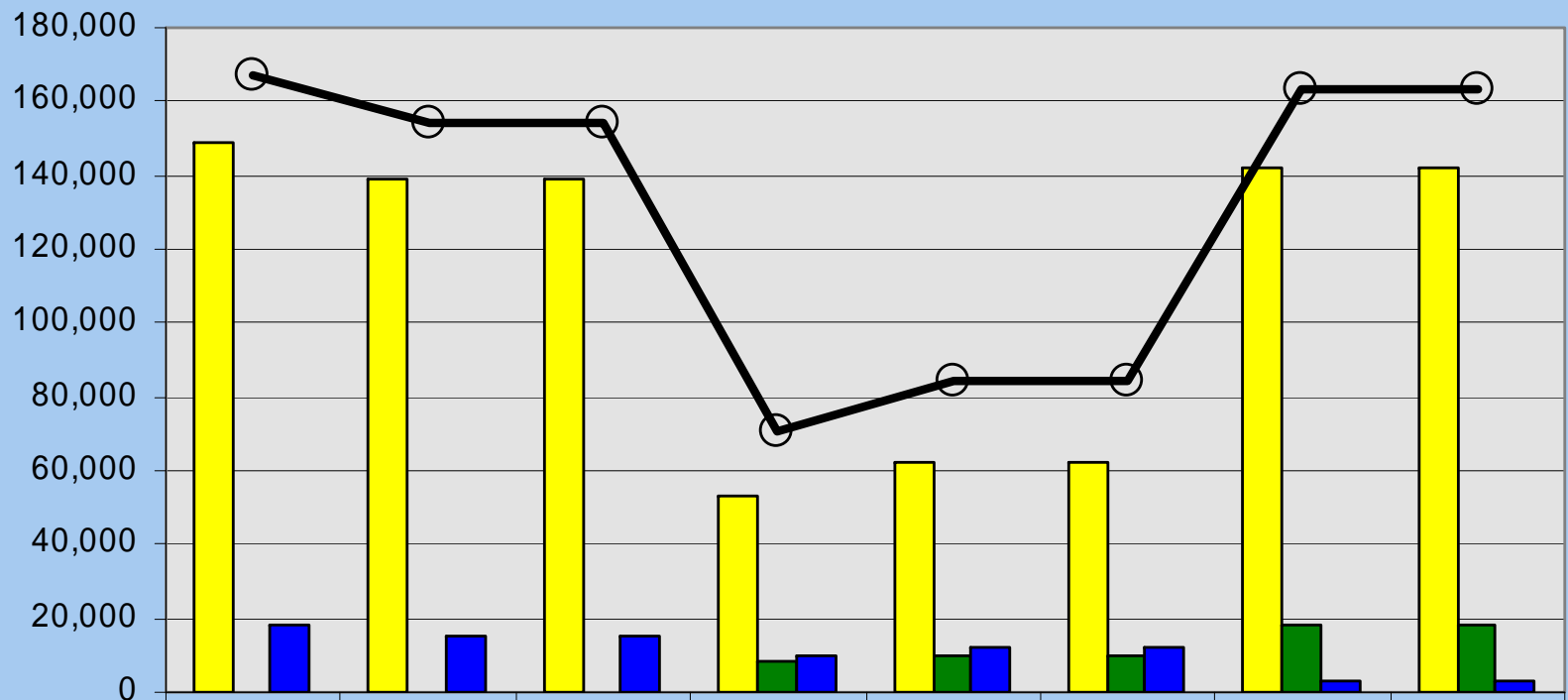
■ No. of Deaths

	2000	2001	2002	2003	2004	2005	2006	2007*
No. of Deaths	0	0	0	0	0	0	0	0

* Data taken from previous year

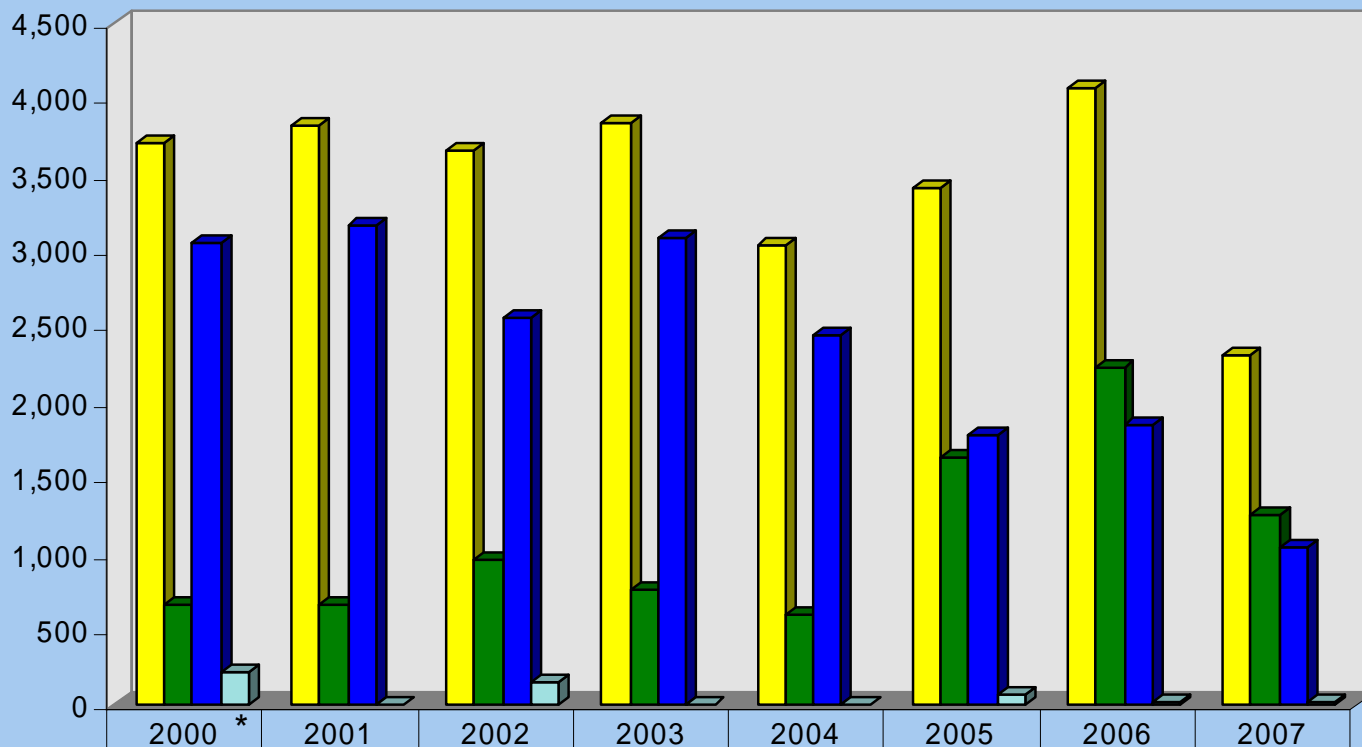
FRENCH GUIANA

FRENCH GUIANA: Population at Ecological Risk of Malaria Transmission, 2000-2007



	2000	2001	2002	2003	2004	2005 *	2006	2007 *
Low Risk Population	149,000	139,000	139,000	53,000	62,000	62,000	142,000	142,000
Medium Risk Population	0	0	0	8,000	10,000	10,000	18,000	18,000
High Risk Population	18,000	15,000	15,000	10,000	12,000	12,000	3,000	3,000
Total Population at Risk	167,000	154,000	154,000	71,000	84,000	84,000	163,000	163,000

FRENCH GUIANA: Malaria Morbidity, 2000-2007

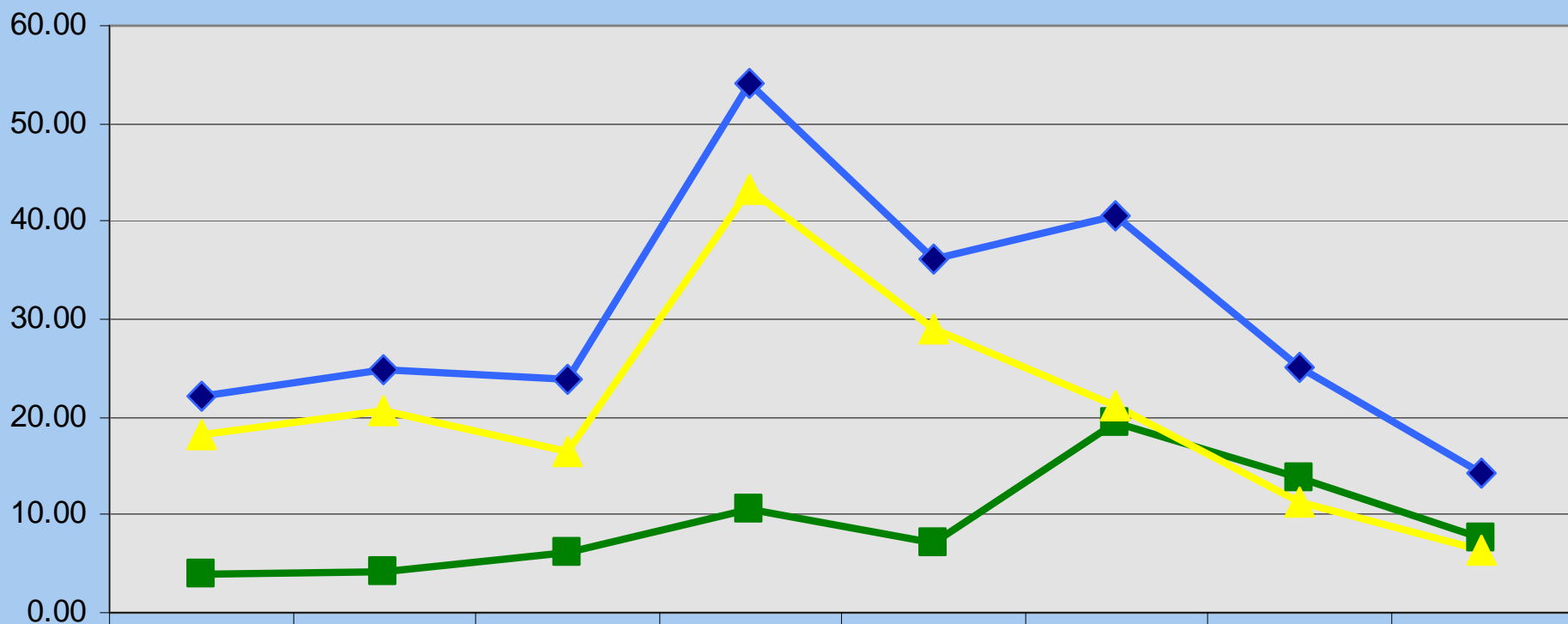


	2000 *	2001	2002	2003	2004	2005	2006	2007
■ No. of Cases	3,708	3,823	3,661	3,839	3,037	3,414	4,074	2,314 **
■ P. vivax	657	657	954	759	600	1,637	2,227	1,250
■ P. falciparum & mixed	3,051	3,166	2,547	3,080	2,437	1,777	1,847	1,041
□ P. malariae	214	0	160	0	0	71	27	23

* Data taken from previous year

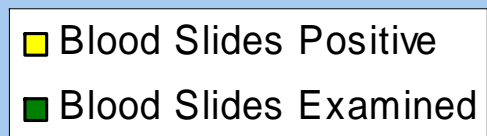
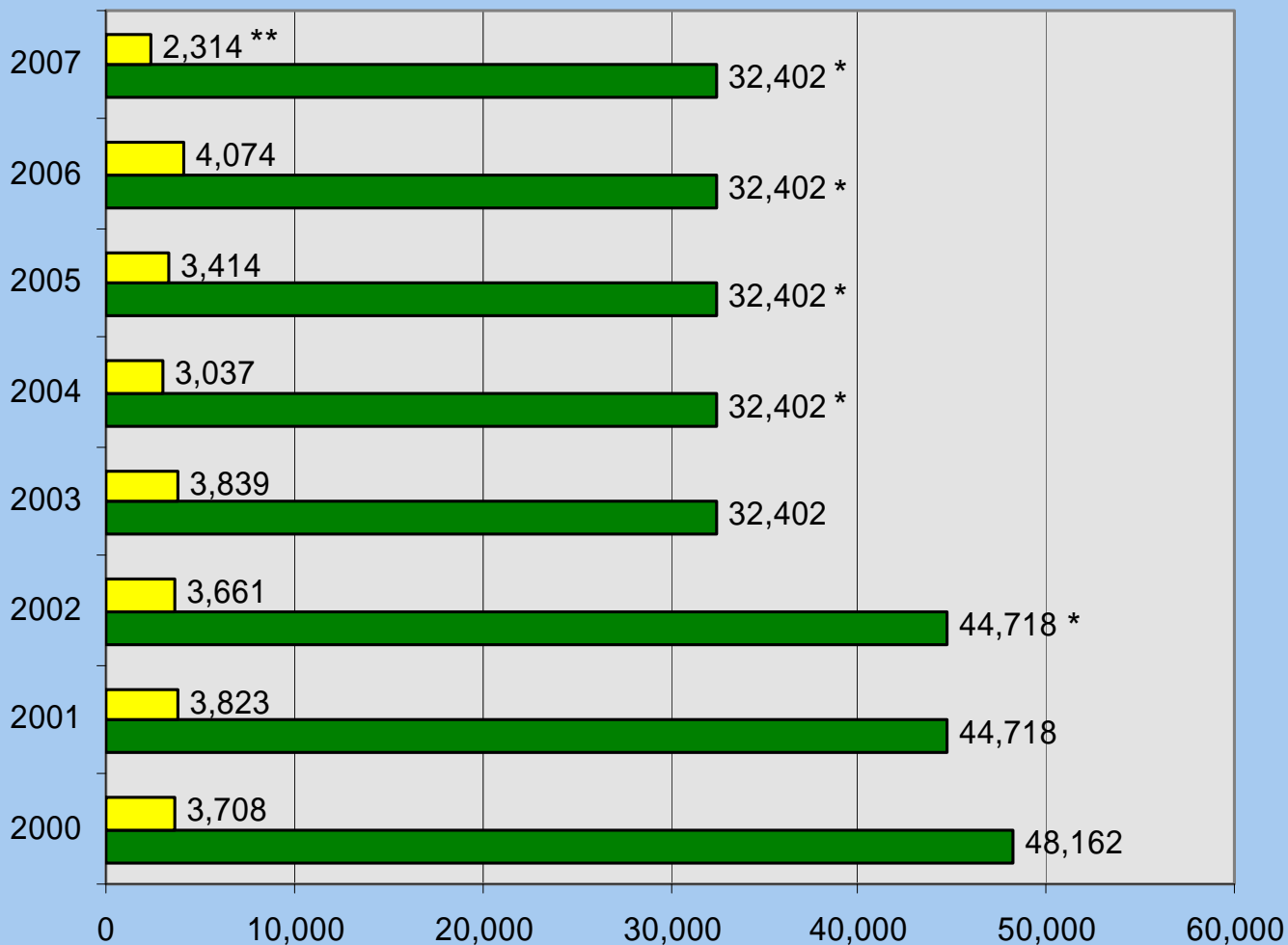
** Based on preliminary data. Breakdown of cases based on previous year's percentage of cases.

FRENCH GUIANA: Annual Parasitic Index (API), Annual Index of *P. vivax* (AVI), Annual Index of *P. falciparum* (AFI), 2000-2007

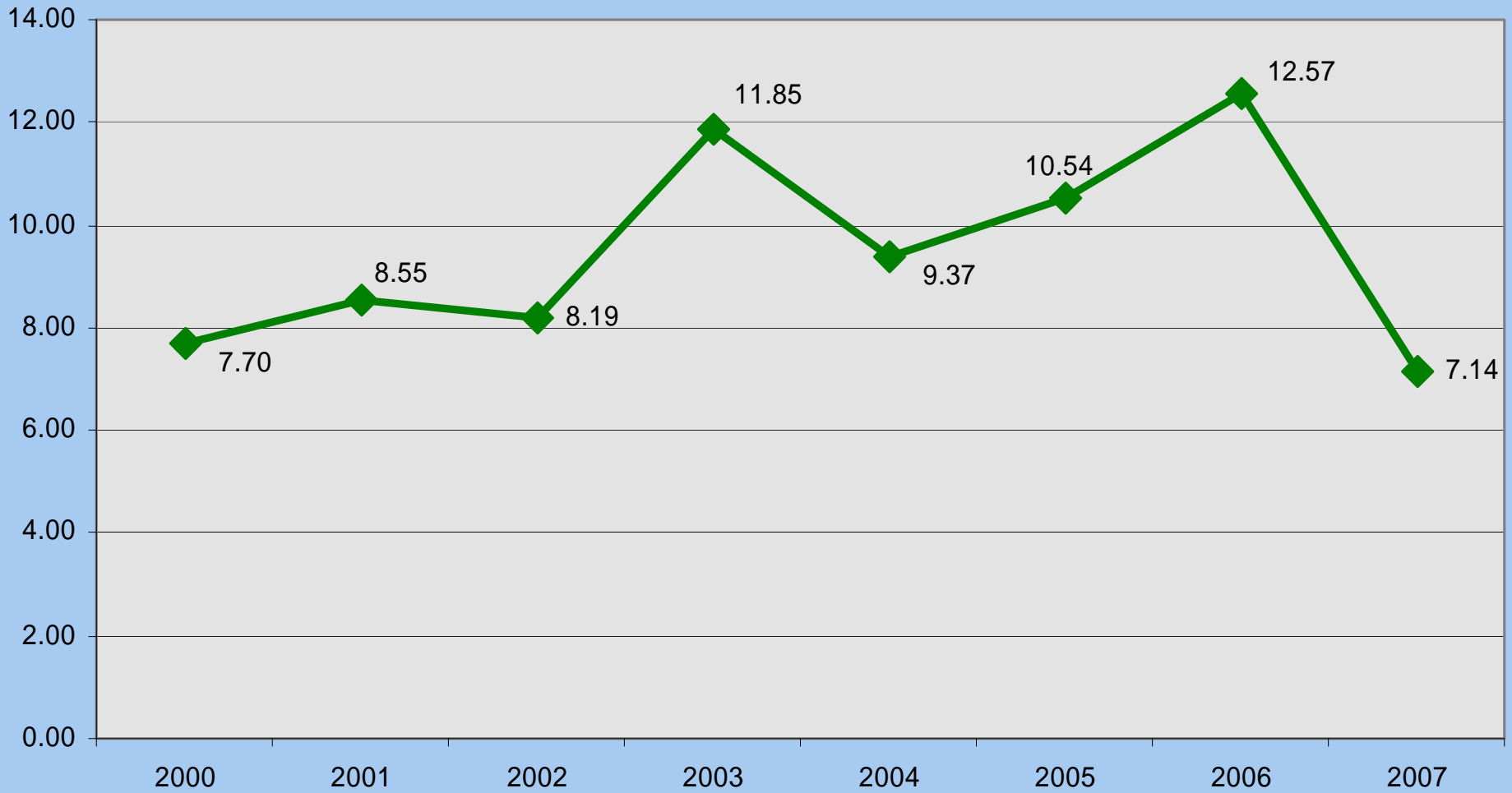


	2000	2001	2002	2003	2004	2005	2006	2007
◆ API	22.20	24.82	23.77	54.07	36.15	40.64	24.99	14.20
■ AVI	3.93	4.27	6.19	10.69	7.14	19.49	13.66	7.67
▲ AFI	18.27	20.56	16.54	43.38	29.01	21.15	11.33	6.39

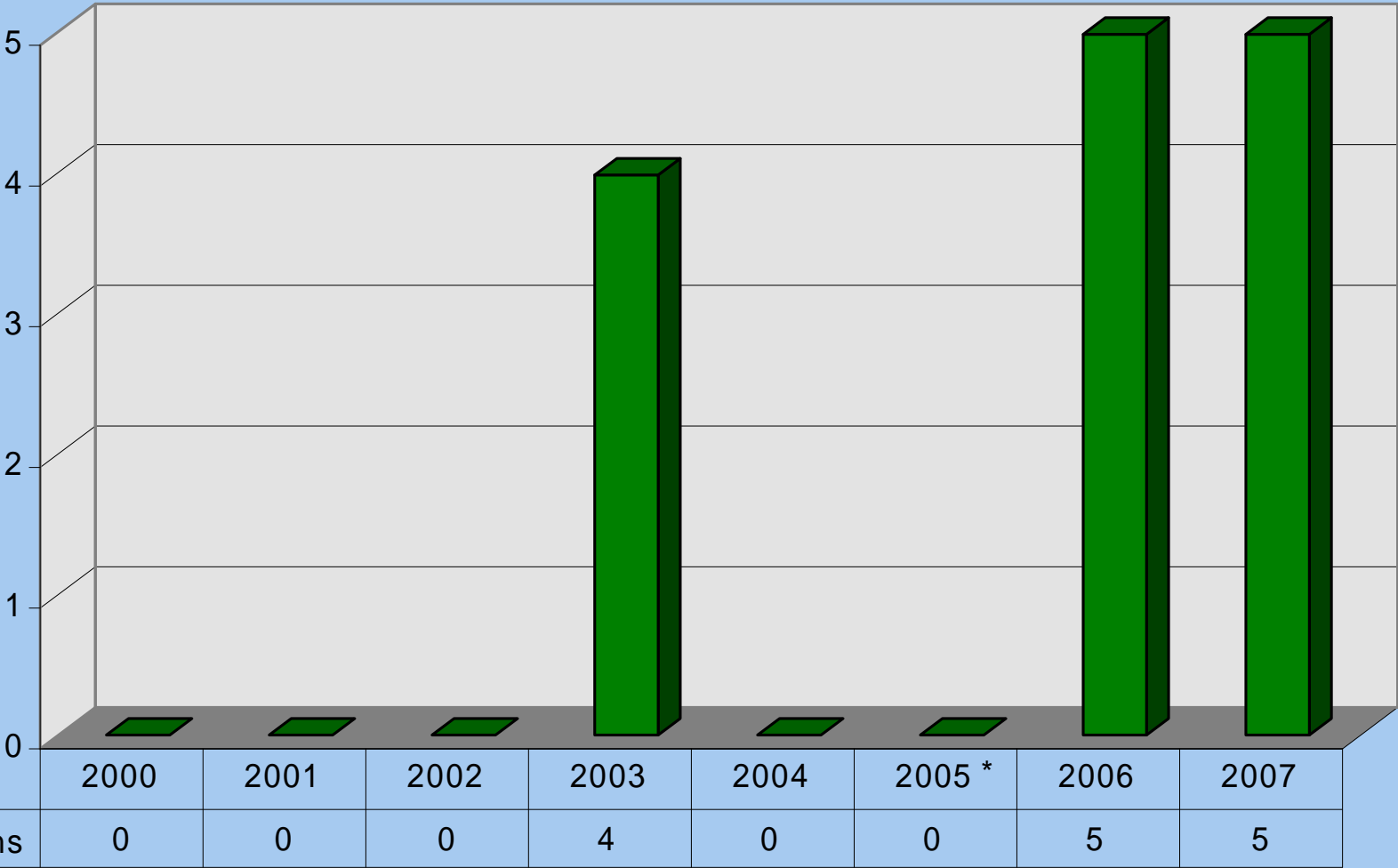
FRENCH GUIANA: Malaria Microscopy, 2000-2007



FRENCH GUIANA: Slide Positivity Rate (SPR), 2000-2007



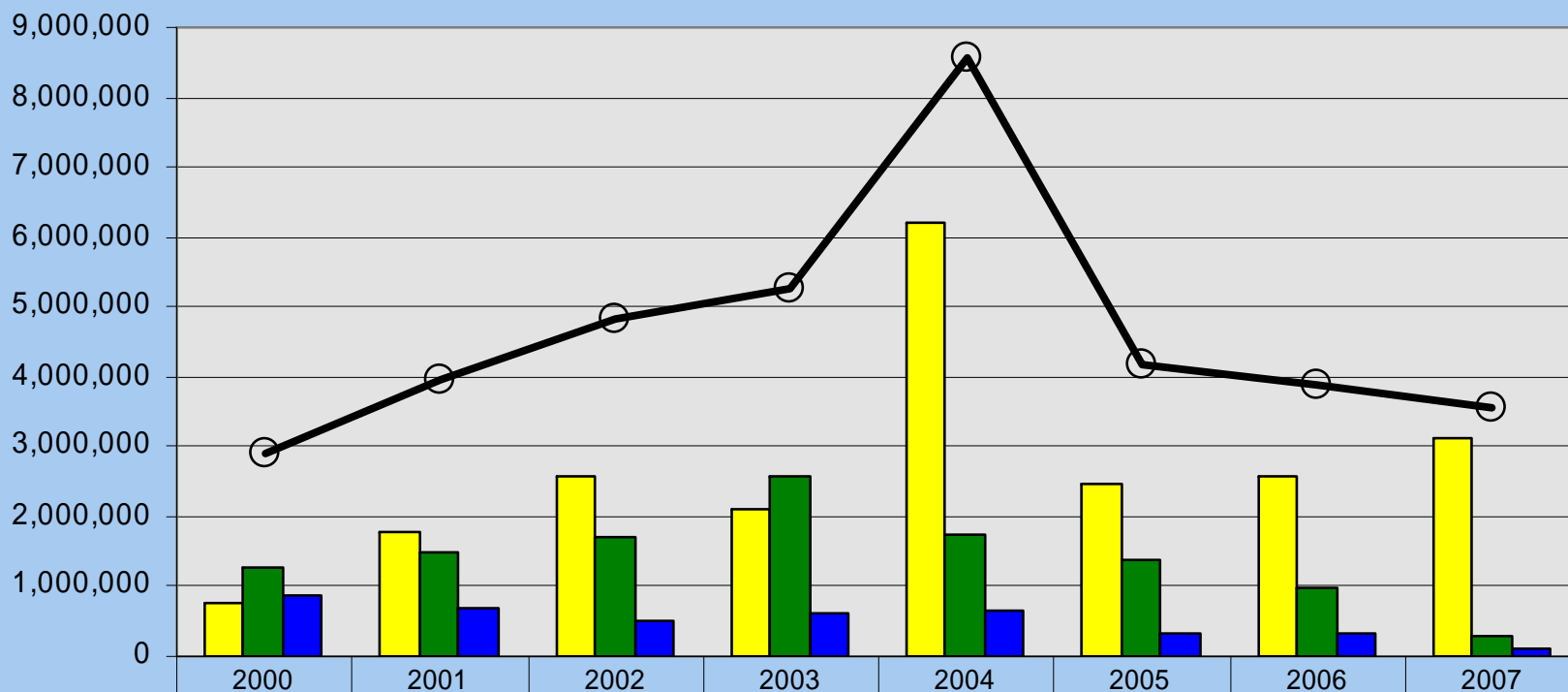
FRENCH GUIANA: Malaria Mortality, 2000-2007







* Data taken from previous year

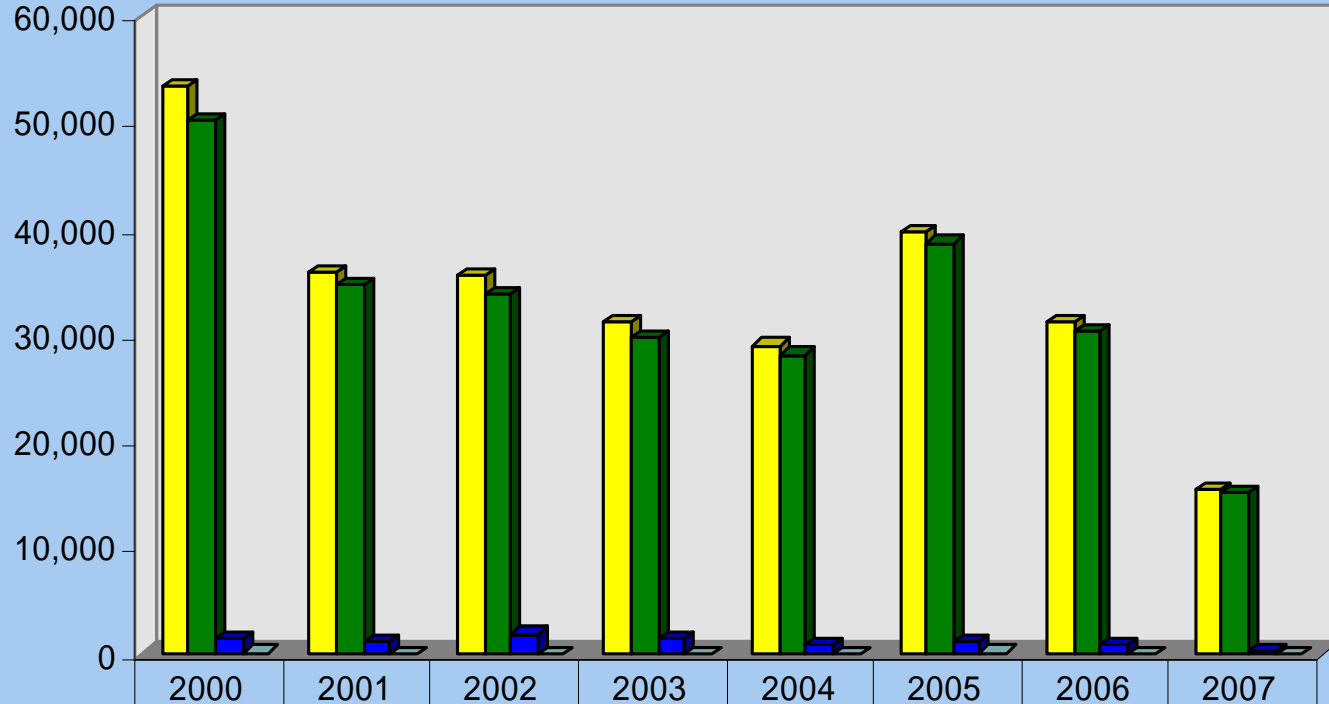
GUATEMALA

GUATEMALA: Population at Ecological Risk of Malaria Transmission, 2000-2007



 Low Risk Population	751,000	1,763,000	2,582,000	2,110,000	6,188,000	2,453,000	2,582,000	3,138,886
 Medium Risk Population	1,277,000	1,478,000	1,715,000	2,562,000	1,741,000	1,386,000	986,000	300,731*
 High Risk Population	884,000	705,000	521,000	600,000	638,000	337,000	333,000	101,854*
 Total Population at Risk	2,912,000	3,946,000	4,818,000	5,272,000	8,567,000	4,176,000	3,901,000	3,541,471

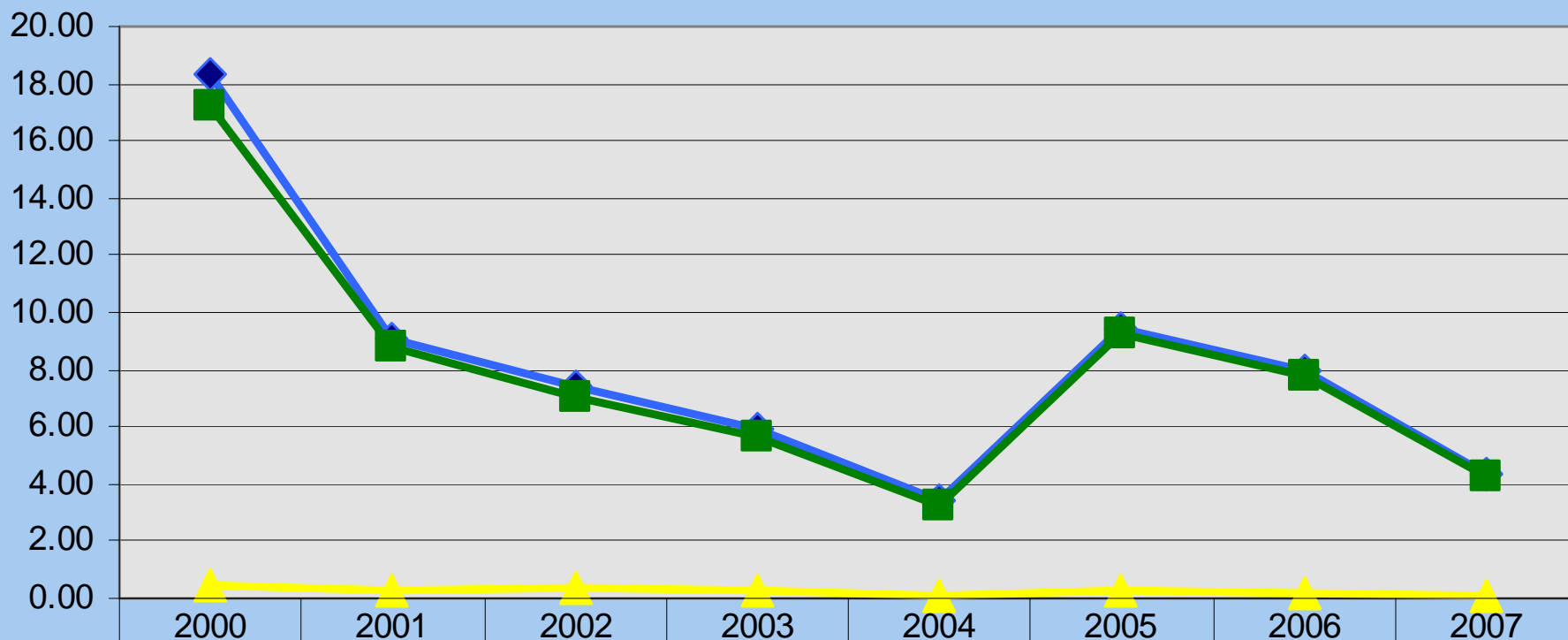
GUATEMALA: Malaria Morbidity, 2000-2007



	2000	2001	2002	2003	2004	2005	2006	2007
■ No. of Cases	53,311	35,824	35,540	31,127	28,955	39,571	31,093	15,382
■ P. vivax	50,171	34,772	33,695	29,817	28,103	38,641	30,289	15,182
■ P. falciparum & mixed	1,474	1,044	1,841	1,310	852	1,062	804	196
□ P. malariae	36	0	0	0	0 *	48	0	0 *

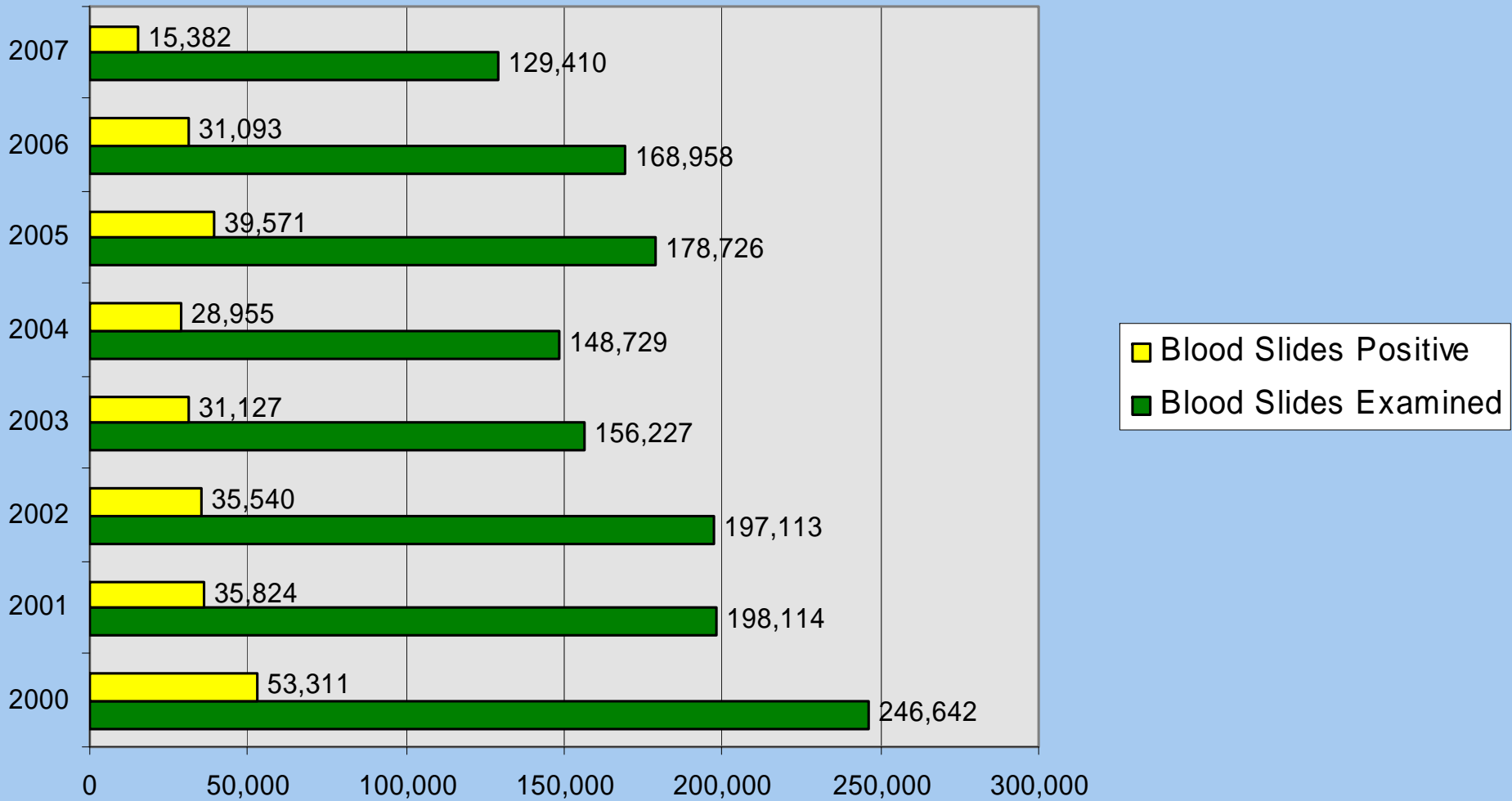
* Data taken from previous year

GUATEMALA: Annual Parasitic Index (API), Annual Index of *P. vivax* (AVI), Annual Index of *P. falciparum* (AFI), 2000-2007

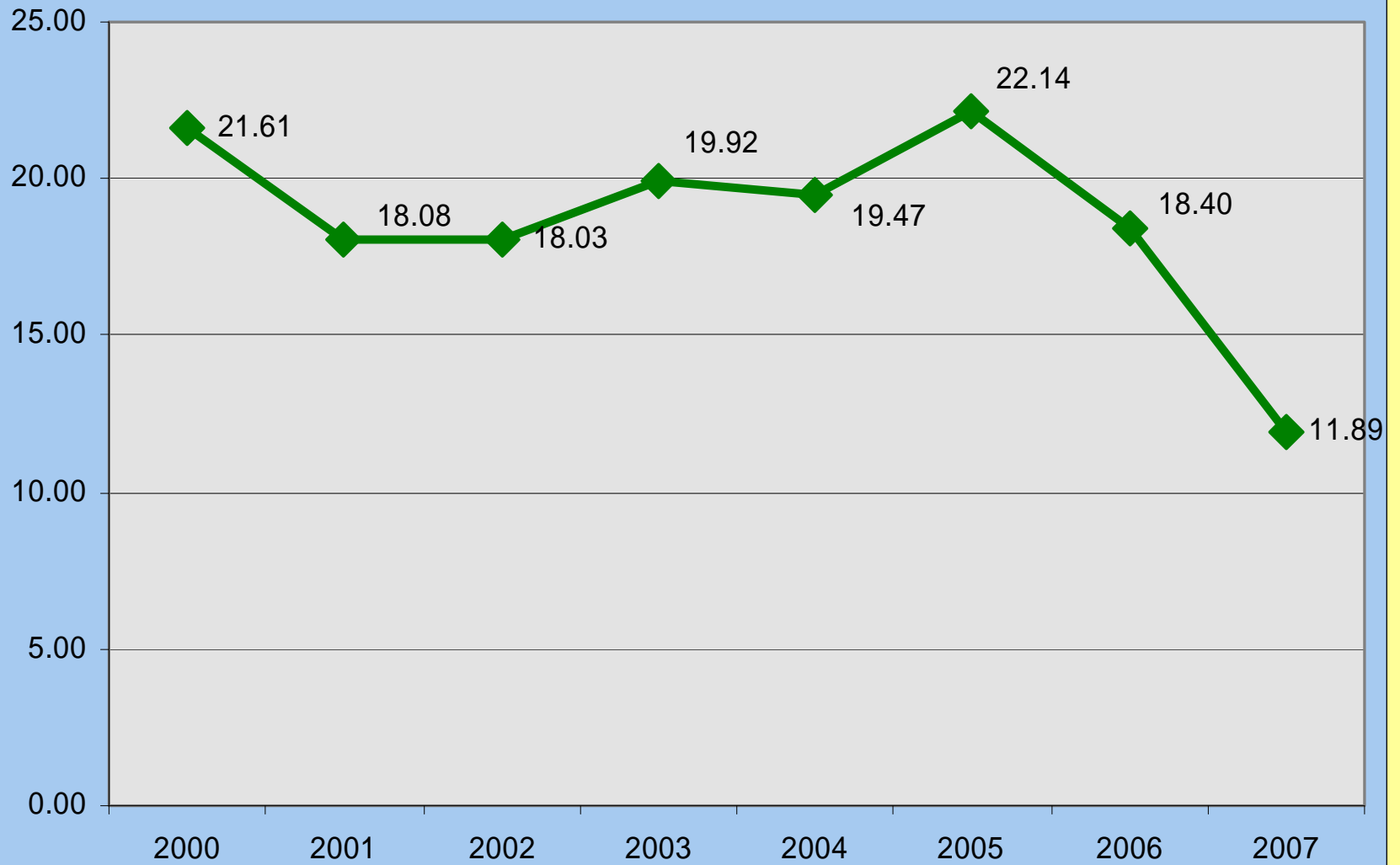


◆ API	18.31	9.08	7.38	5.90	3.38	9.48	7.97	4.34
■ AVI	17.23	8.81	6.99	5.66	3.28	9.25	7.76	4.29
▲ AFI	0.51	0.26	0.38	0.25	0.10	0.25	0.21	0.06

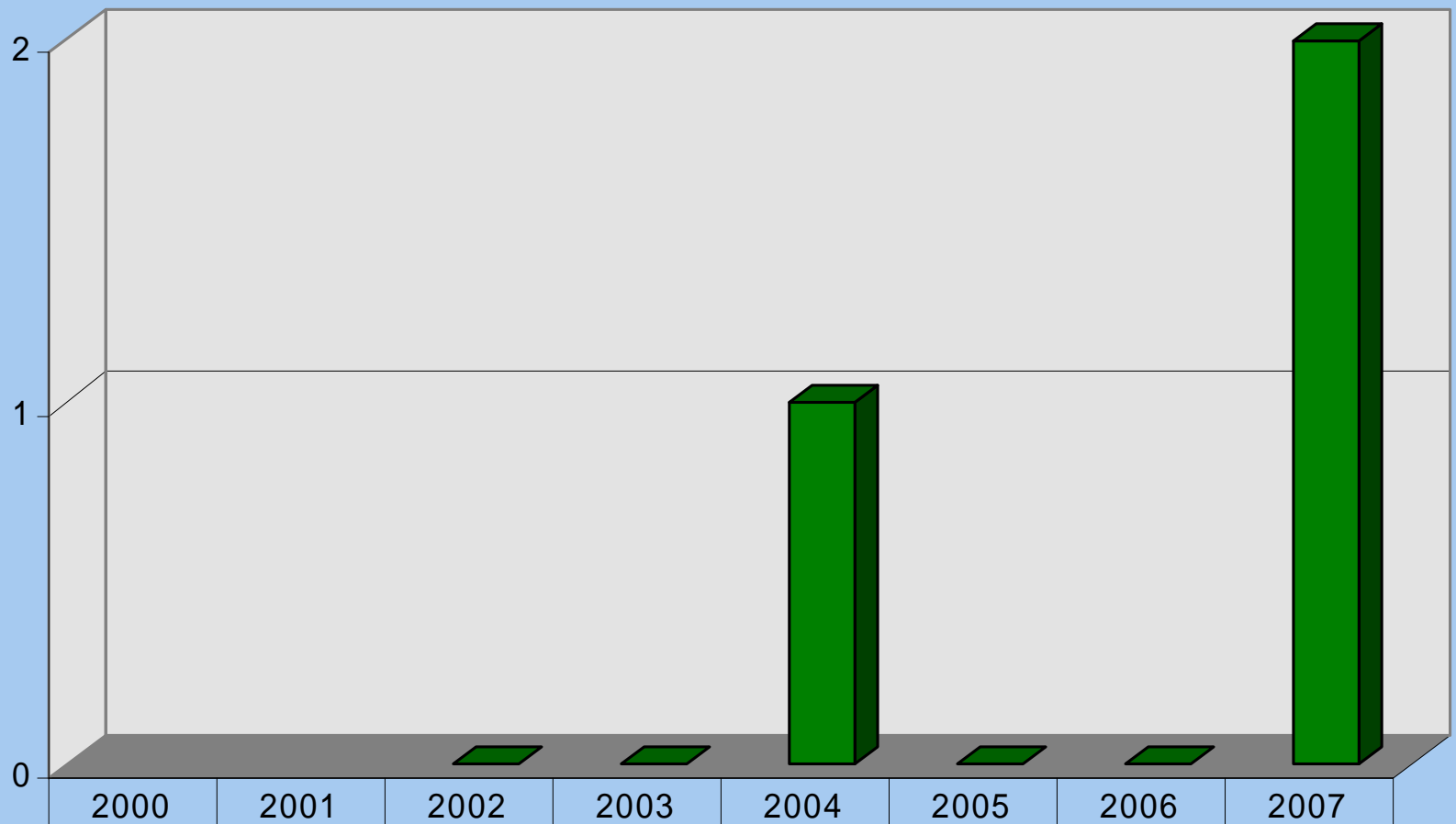
GUATEMALA: Malaria Microscopy, 2000-2007



GUATEMALA: Slide Positivity Rate (SPR), 2000-2007



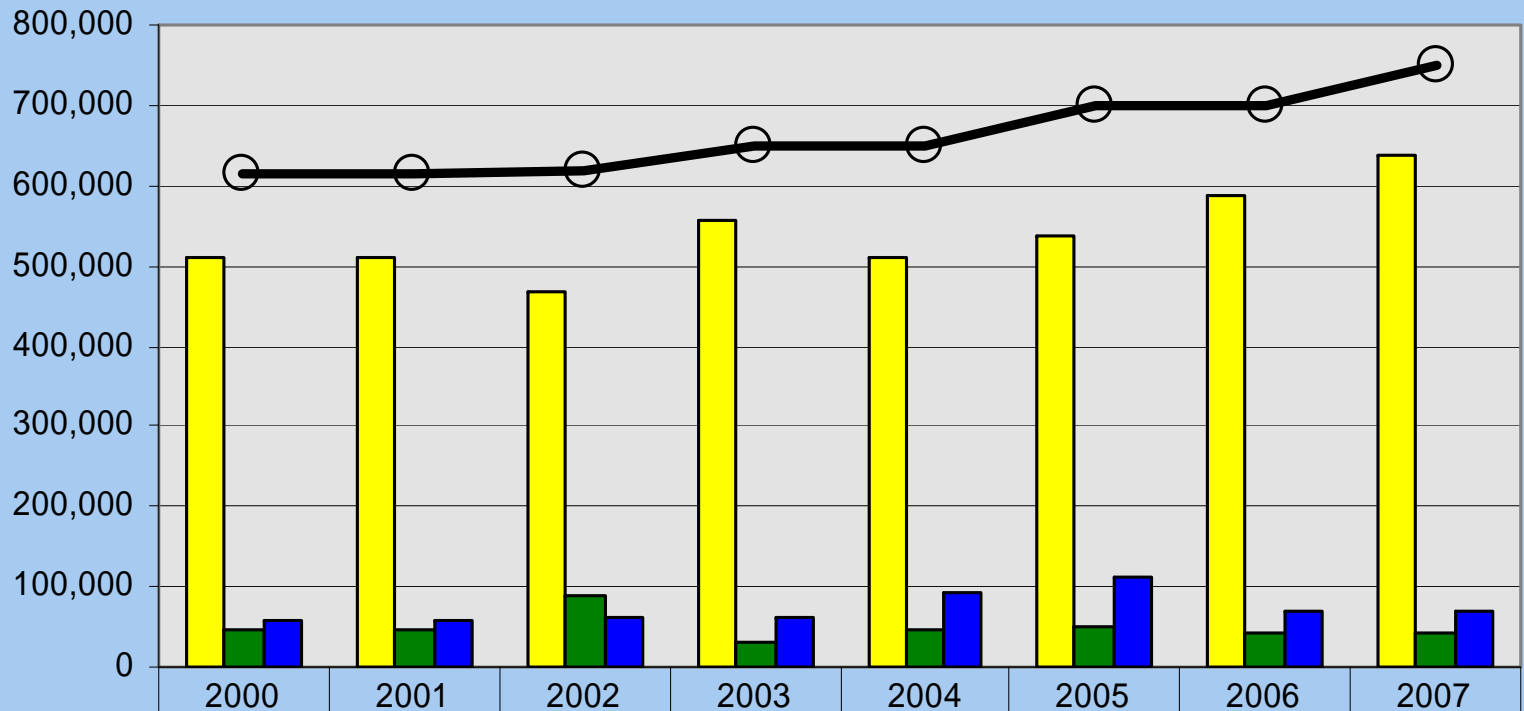
GUATEMALA: Malaria Mortality, 2000-2007







No. of Deaths	2000	2001	2002	2003	2004	2005	2006	2007
	0	0	1	0	0	2

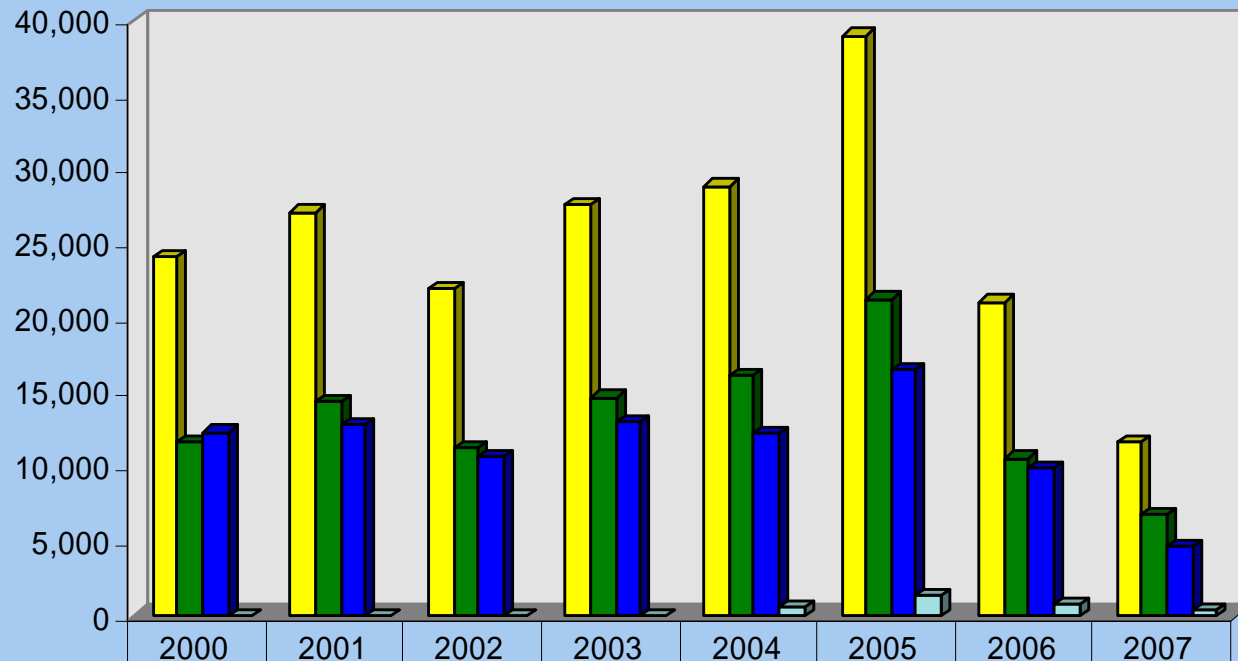
GUYANA

GUYANA: Population at Ecological Risk of Malaria Transmission, 2000-2007



 Low Risk Population	511,000	511,000	468,000	556,000	511,000	537,000	586,000	638,757
 Medium Risk Population	45,000	45,000	88,000	30,000	45,000	49,000	41,000	41,112
 High Risk Population	59,000	59,000	63,000	63,000	93,000	112,000	71,000	71,354
 Total Population at Risk	615,000	615,000	619,000	649,000	649,000	698,000	698,000	751,223

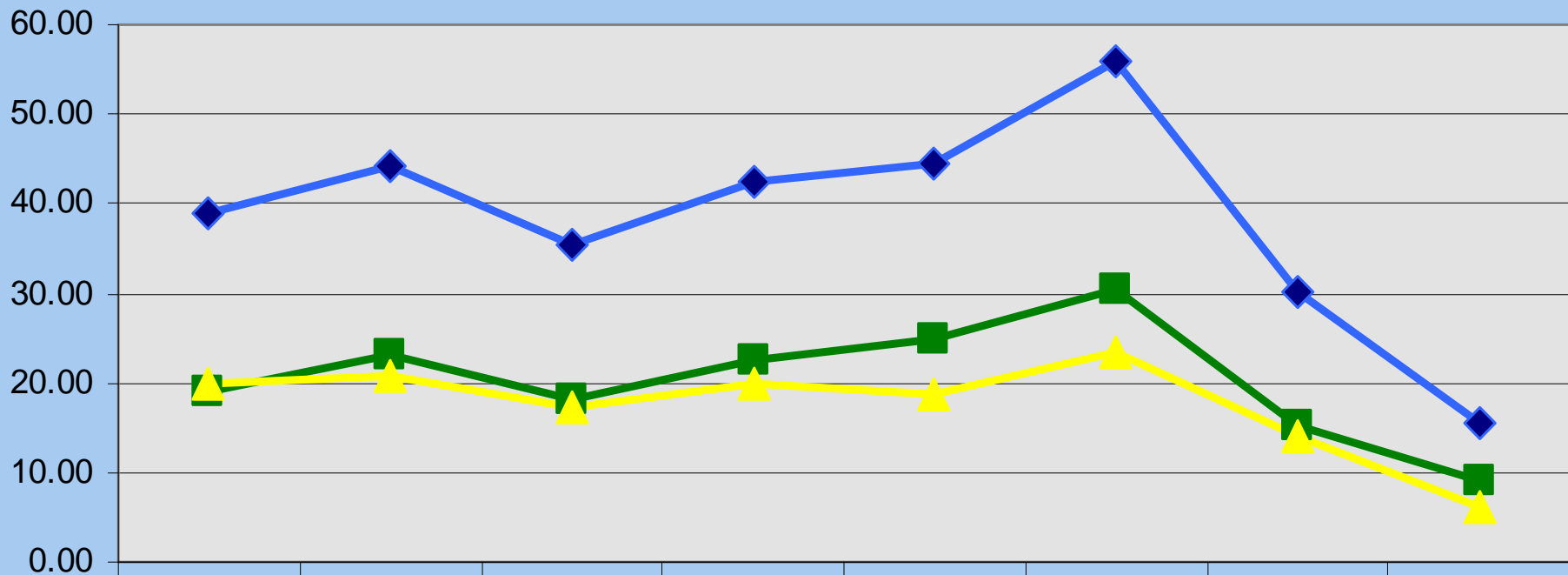
GUYANA: Malaria Morbidity, 2000-2007



	2000	2001	2002	2003	2004	2005	2006	2007
■ No. of Cases	24,018	27,122	21,895	27,627	28,866	38,984	21,064	11,657
■ P. vivax	11,694	14,291	11,296	14,654	16,141	21,255	10,560	6,712
■ P. falciparum & mixed	12,324	12,831	10,599	12,970	12,234	16,438	9,818	4,677
■ P. malariae	0	0	0	3	491	1,291	686	268 *

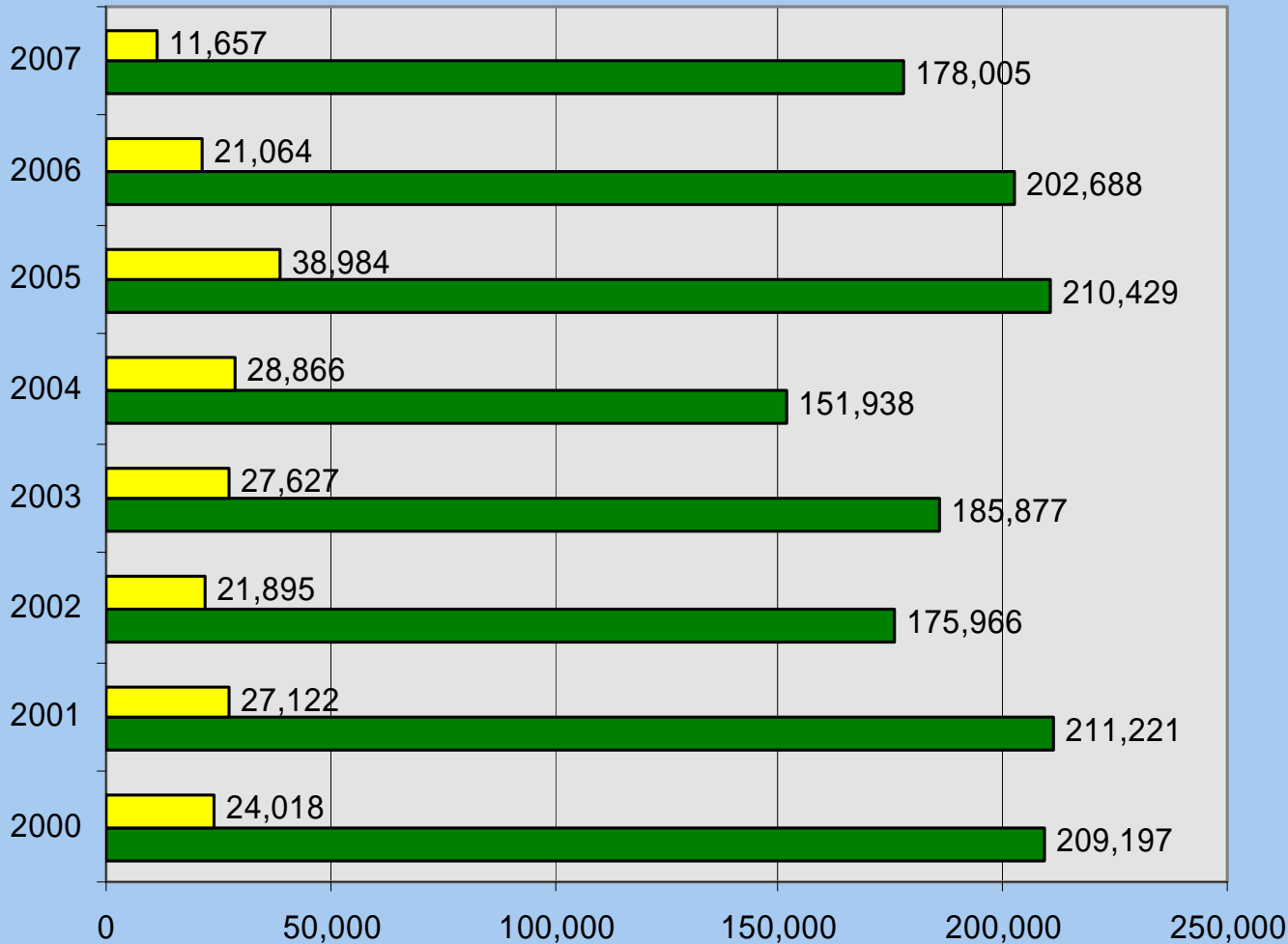
* Estimate based on difference between total cases and *P. vivax* / *P. falciparum* cases

GUYANA: Annual Parasitic Index (API), Annual Index of *P. vivax* (AVI), Annual Index of *P. falciparum* (AFI), 2000-2007



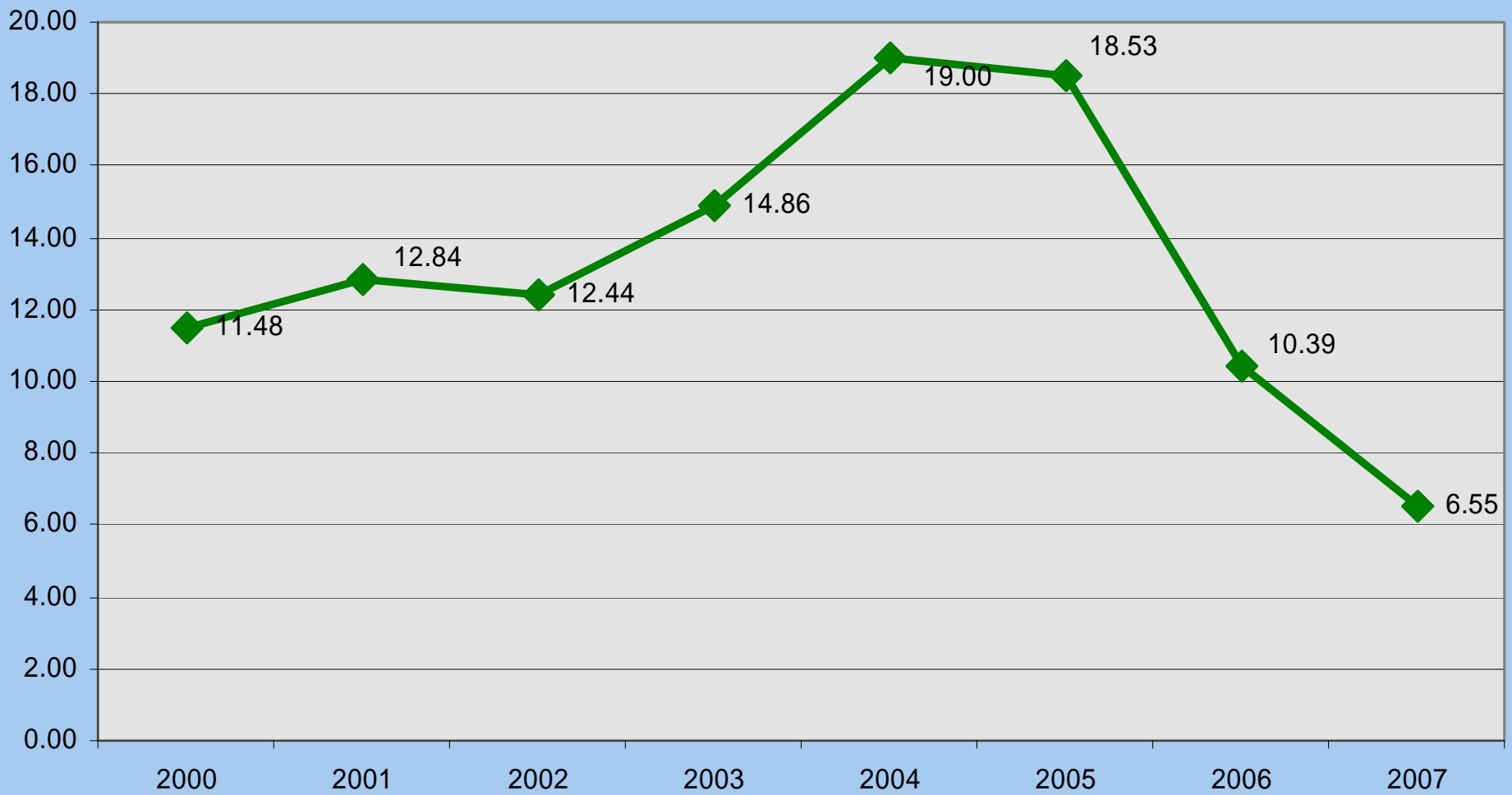
	2000	2001	2002	2003	2004	2005	2006	2007
◆ API	39.05	44.10	35.37	42.57	44.48	55.85	30.18	15.52
■ AVI	19.01	23.24	18.25	22.58	24.87	30.45	15.13	8.93
▲ AFI	20.04	20.86	17.12	19.98	18.85	23.55	14.07	6.23

GUYANA: Malaria Microscopy, 2000-2007

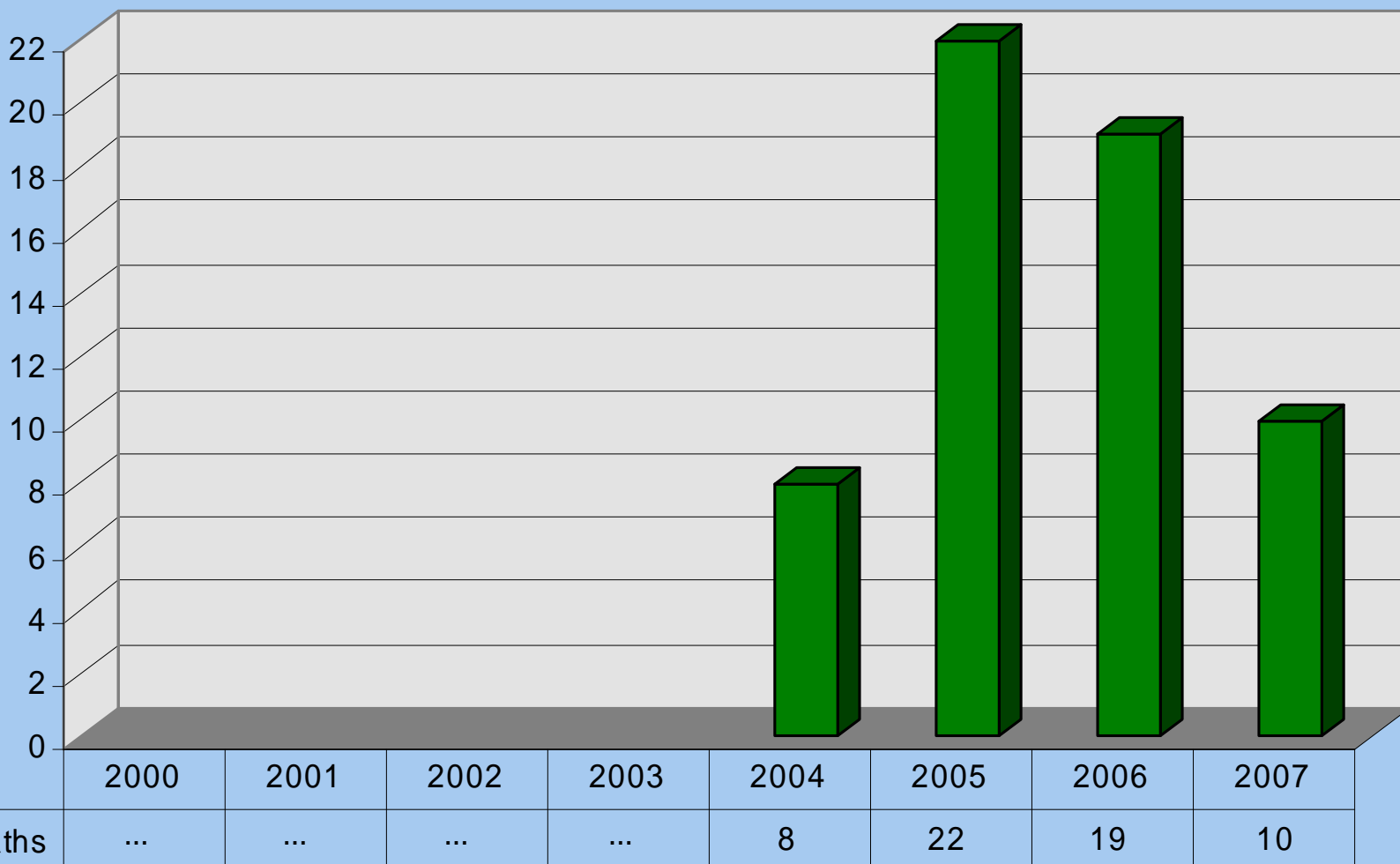


■ Blood Slides Positive
■ Blood Slides Examined

GUYANA: Slide Positivity Rate (SPR), 2000-2007

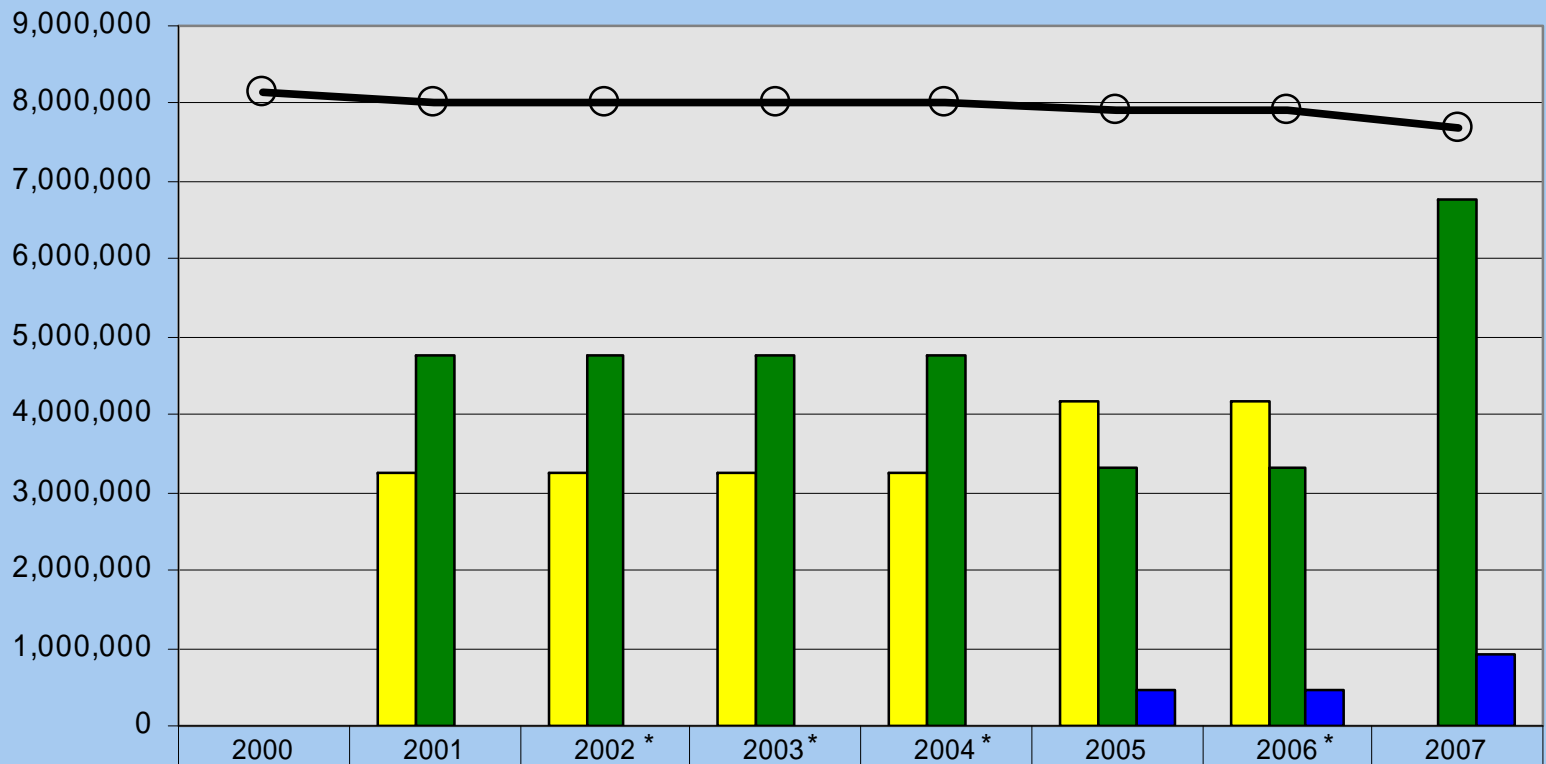






GUYANA: Malaria Mortality, 2000-2007



HAITI

HAITI: Population at Ecological Risk of Malaria Transmission, 2000-2007

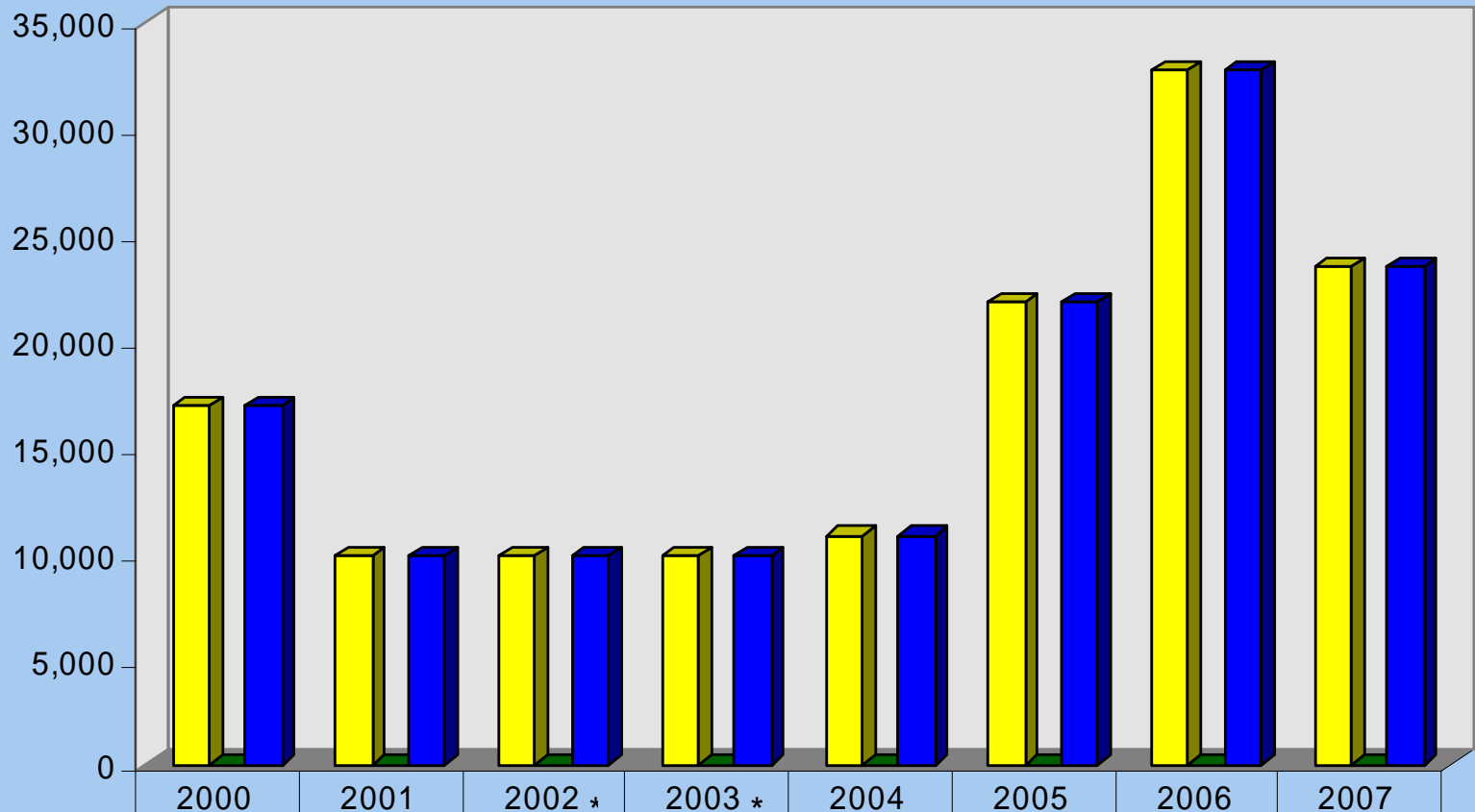


 Low Risk Population	...	3,242,000	3,242,000	3,242,000	3,242,000	4,164,000	4,164,000	0
 Medium Risk Population	...	4,758,000	4,758,000	4,758,000	4,758,000	3,320,000	3,320,000	6,780,432**
 High Risk Population	...	0	0	0	0	445,000	445,000	907,132**
 Total Population at Risk	8,142,000	8,000,000	8,000,000	8,000,000	8,000,000	7,929,000	7,929,000	7,687,564

* Data taken from previous year

** 2007 medium- and high-risk populations based on percentage of previous year's medium- and high-risk populations to total population at risk

HAITI: Malaria Morbidity, 2000-2007



■ No. of Cases

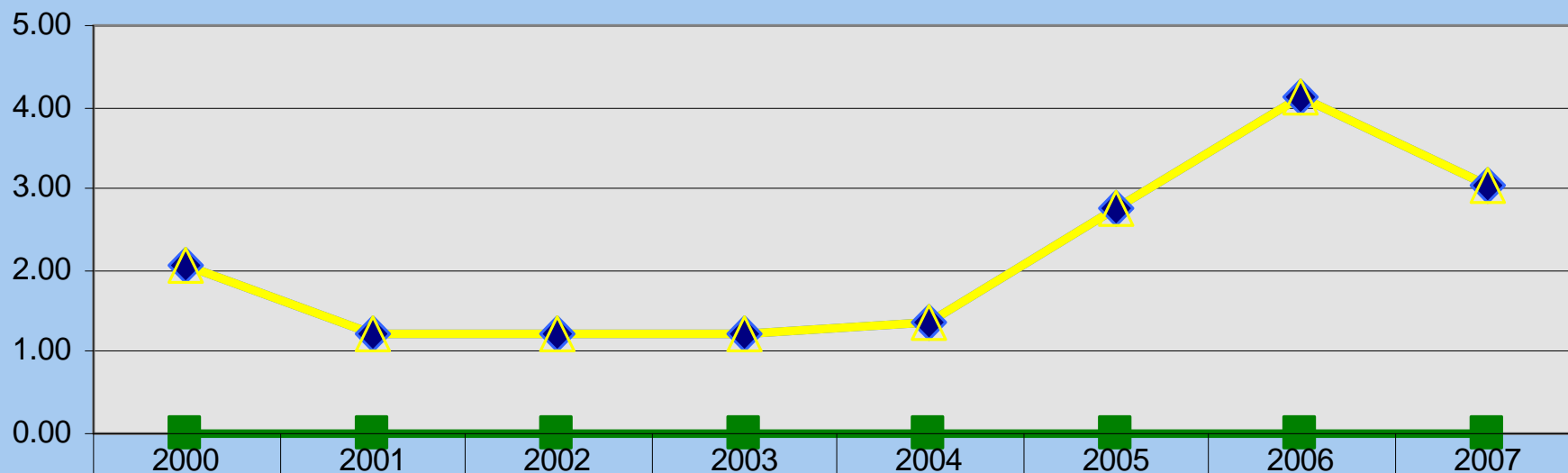
■ P. vivax

■ P. falciparum & mixed

2000	2001	2002 *	2003 *	2004	2005	2006	2007
16,897	9,837	9,837	9,837	10,802	21,778	32,739	23,452
0	0	0	0	0	0	0	0
16,897	9,837	9,837	9,837	10,802	21,778	32,739	23,452

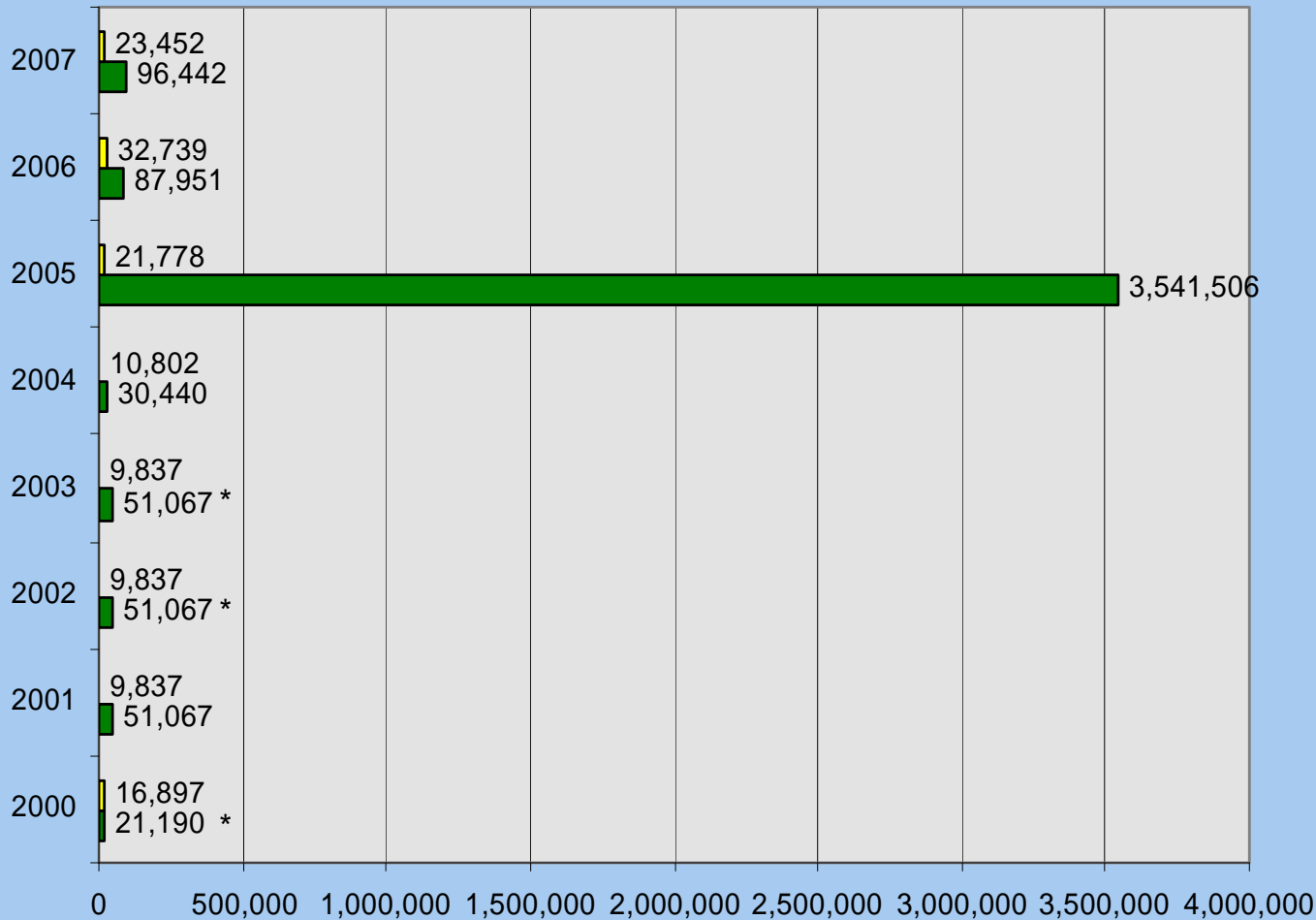
* Data taken from previous year

HAITI: Annual Parasitic Index (API), Annual Index of *P. vivax* (AVI) and Annual Index of *P. falciparum* (AFI), 2000-2007



API	2.08	1.23	1.23	1.23	1.35	2.75	4.13	3.05
AVI	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AFI	2.08	1.23	1.23	1.23	1.35	2.75	4.13	3.05

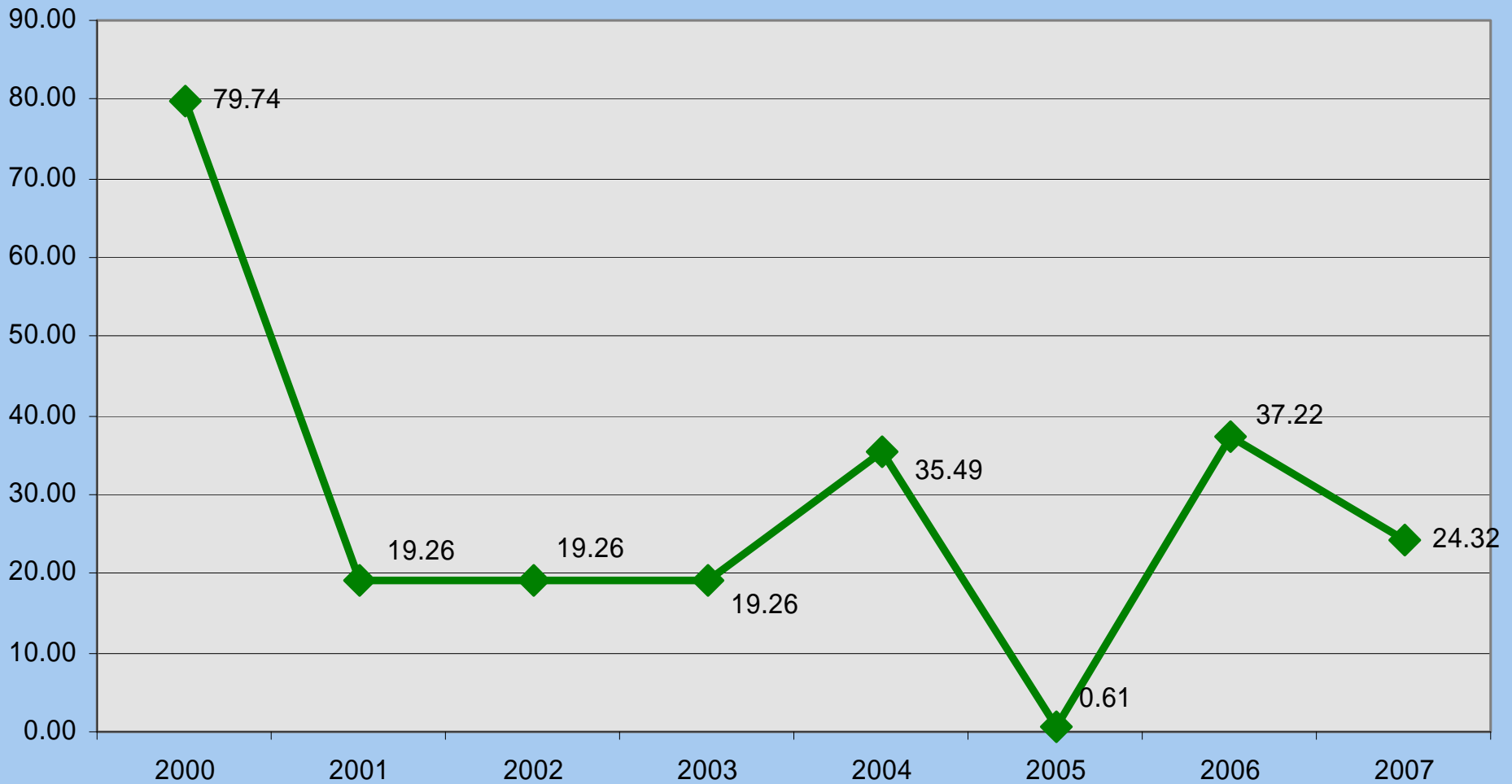
HAITI: Malaria Microscopy, 2000-2007



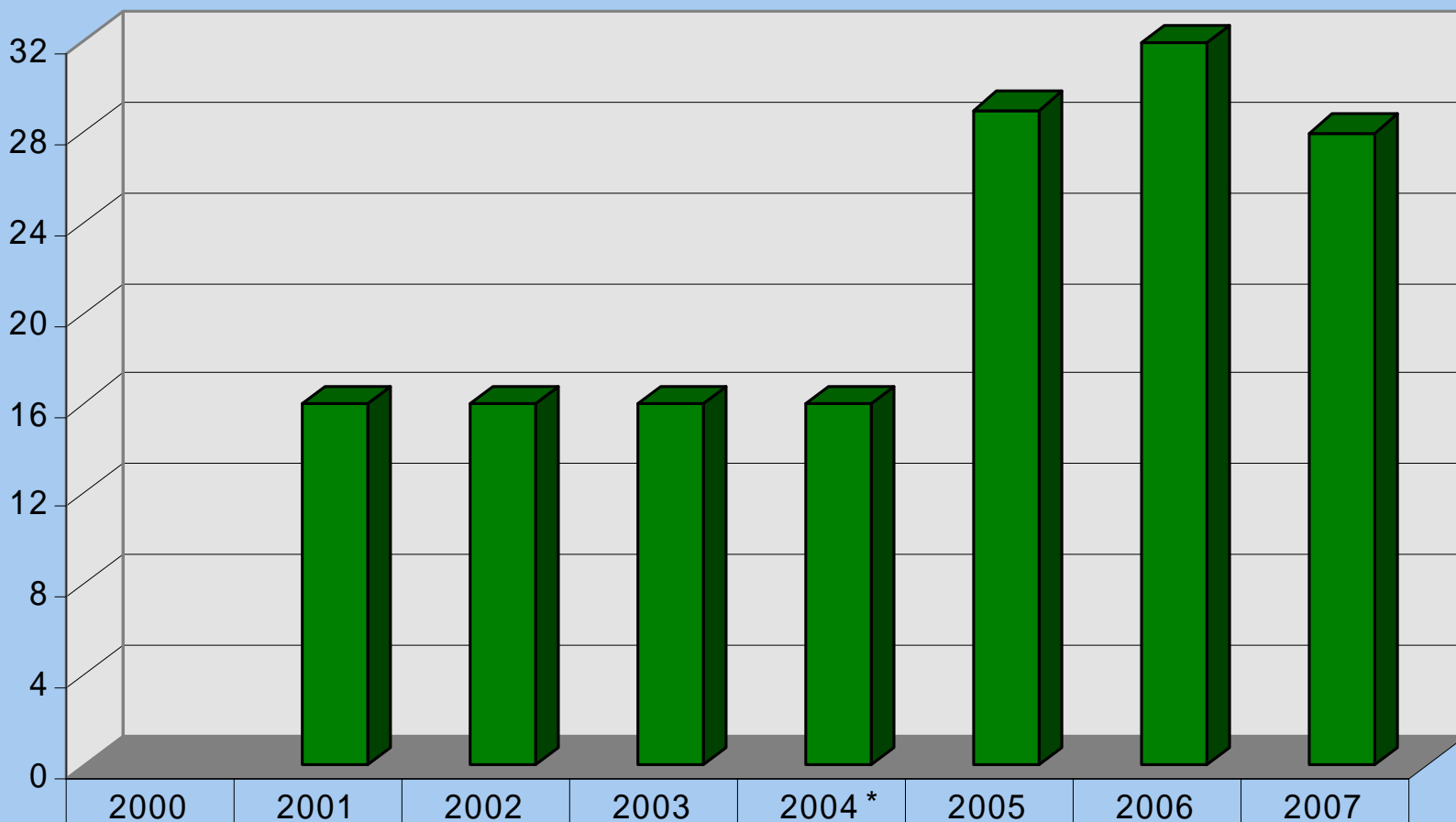
■ Blood Slides Positive
■ Blood Slides Examined

* Data taken from previous year

HAITI: Slide Positivity Rate (SPR), 2000-2007



HAITI: Malaria Mortality, 2000-2007

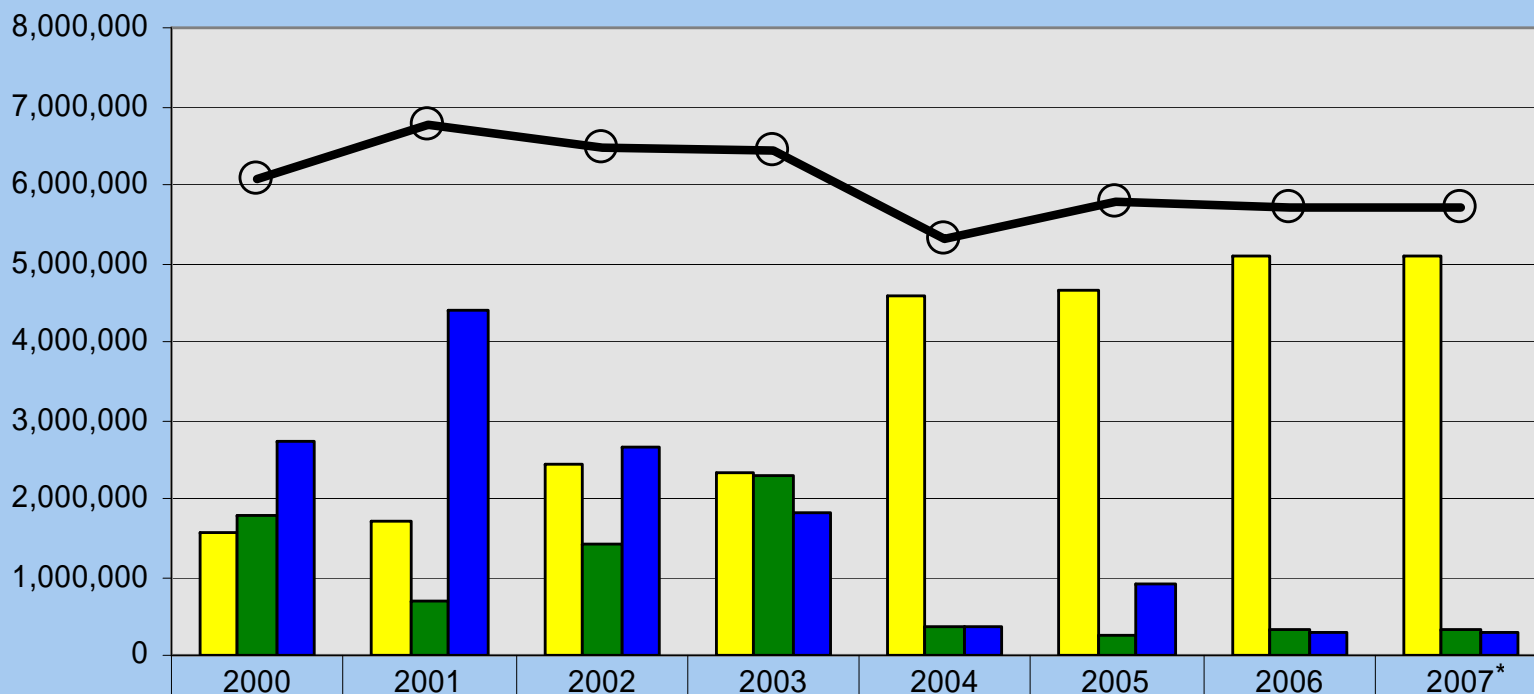





■ No. of Deaths	...	16	16	16	16	29	32	28
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* Data taken from previous year

HONDURAS

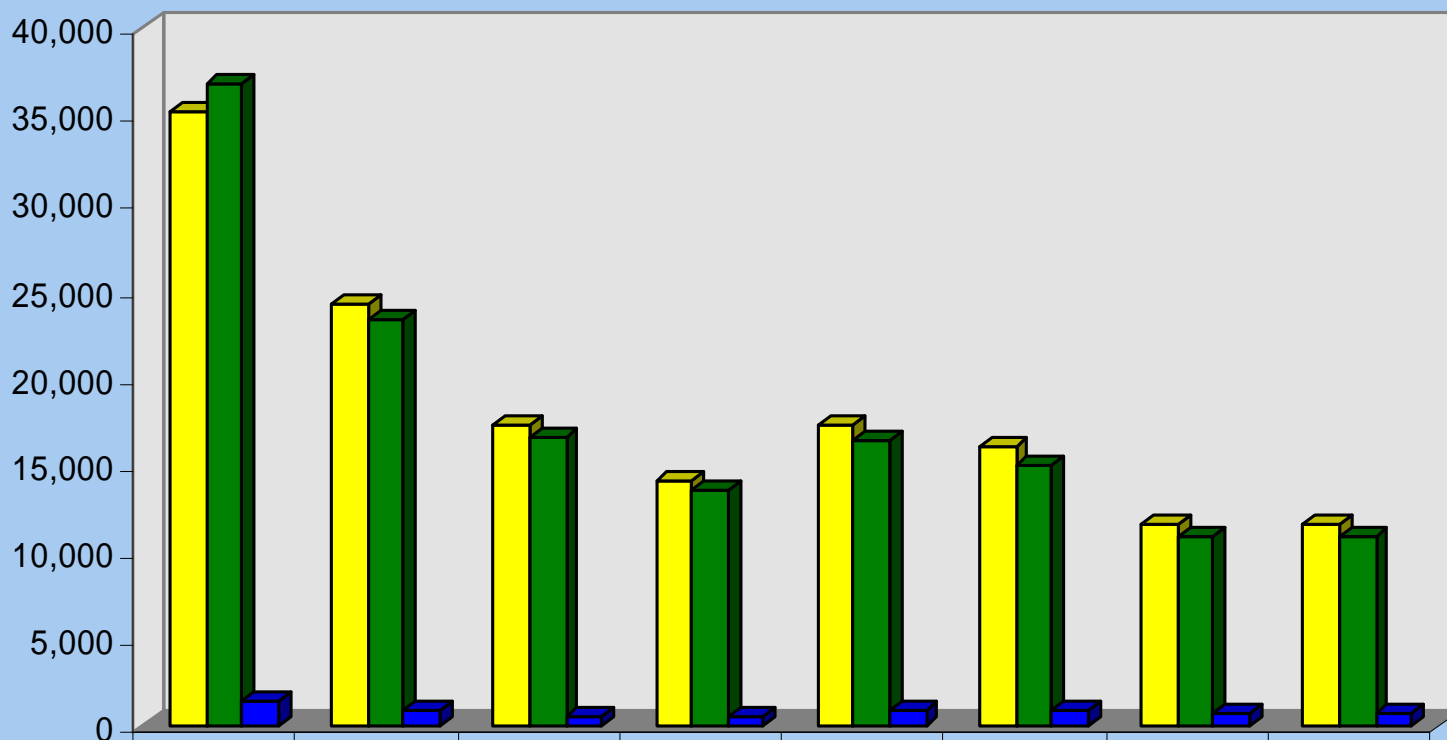
HONDURAS: Population at Ecological Risk of Malaria Transmission, 2000-2007



 Low Risk Population	1,578,000	1,693,000	2,421,000	2,324,000	4,564,000	4,642,000	5,107,000	5,107,000
 Medium Risk Population	1,788,000	680,000	1,407,000	2,286,000	365,000	239,000	317,000	317,000
 High Risk Population	2,714,000	4,407,000	2,661,000	1,813,000	377,000	901,000	299,000	299,000
 Total Population at Risk	6,080,000	6,780,000	6,489,000	6,423,000	5,306,000	5,782,000	5,723,000	5,723,000

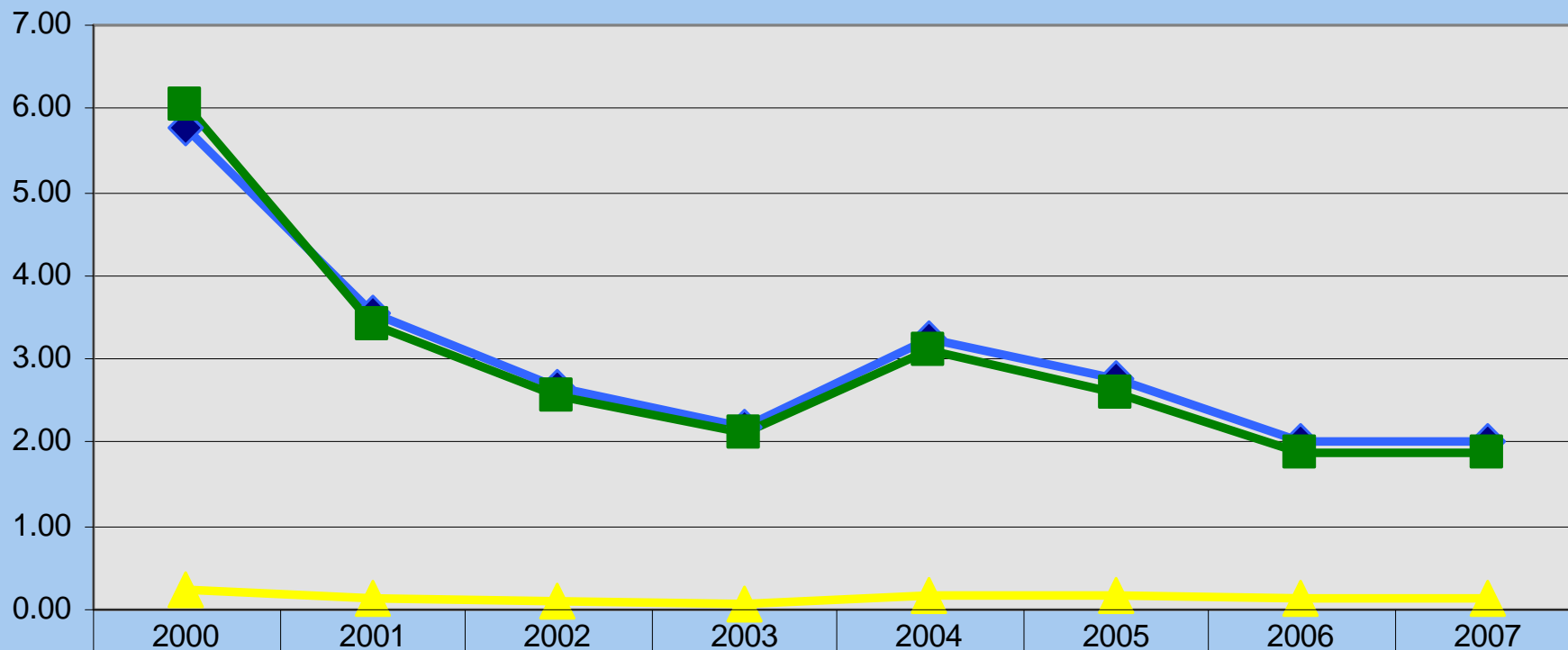
* Data taken from previous year

HONDURAS: Malaria Morbidity, 2000-2007



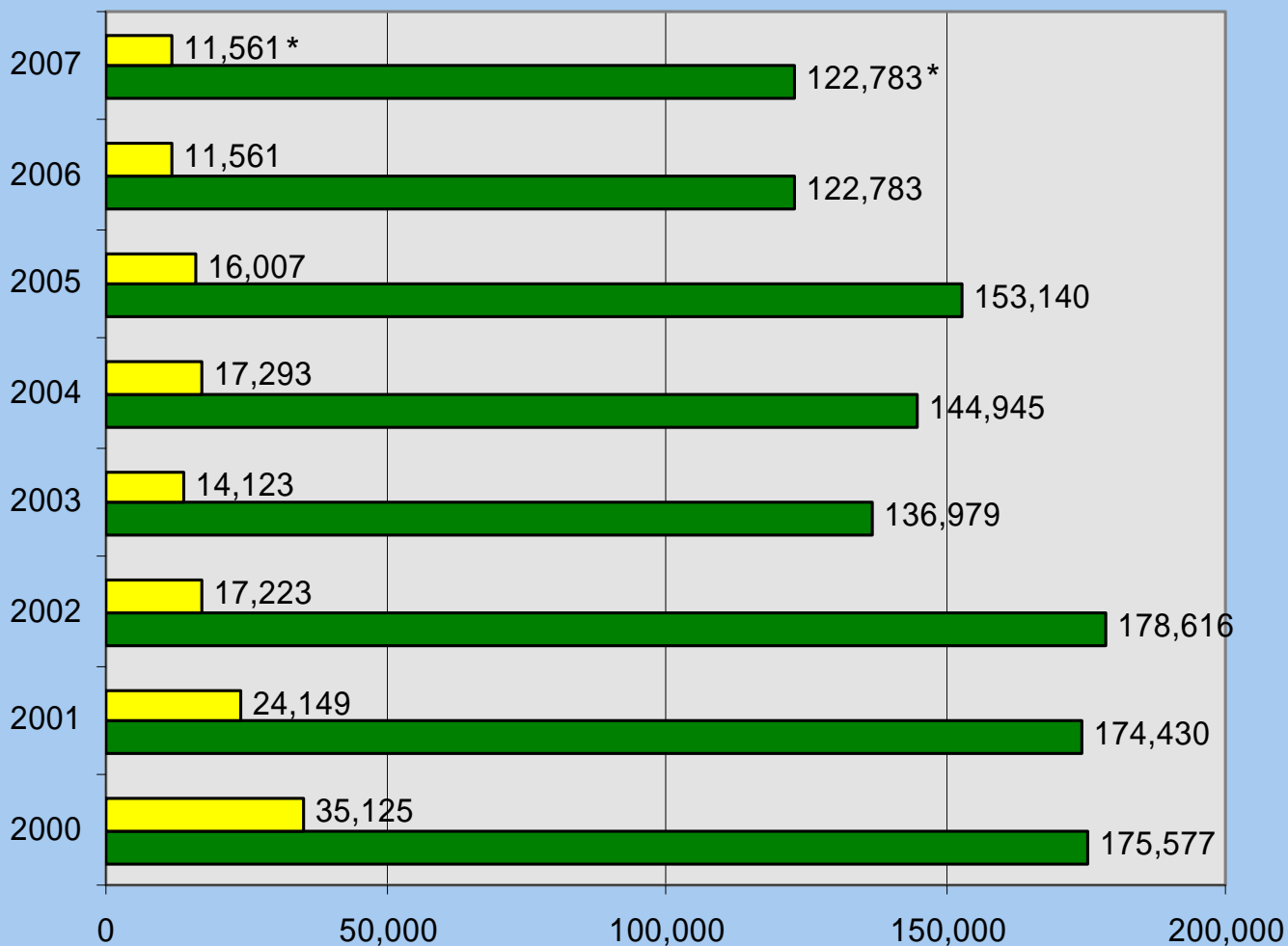
	2000	2001	2002	2003	2004	2005	2006	2007 *
■ No. of Cases	35,125	24,149	17,223	14,123	17,293	16,007	11,561	11,561
■ P. vivax	36,676	23,211	16,617	13,583	16,425	15,008	10,793	10,793
■ P. falciparum & mixed	1,467	938	606	540	868	999	768	768

HONDURAS: Annual Parasitic Index (API), Annual Index of *P. vivax* (AVI) and Annual Index of *P. falciparum* (AFI), 2000-2007



◆ API	5.78	3.56	2.65	2.20	3.26	2.77	2.02	2.02
■ AVI	6.03	3.42	2.56	2.11	3.10	2.60	1.89	1.89
▲ AFI	0.24	0.14	0.09	0.08	0.16	0.17	0.13	0.13

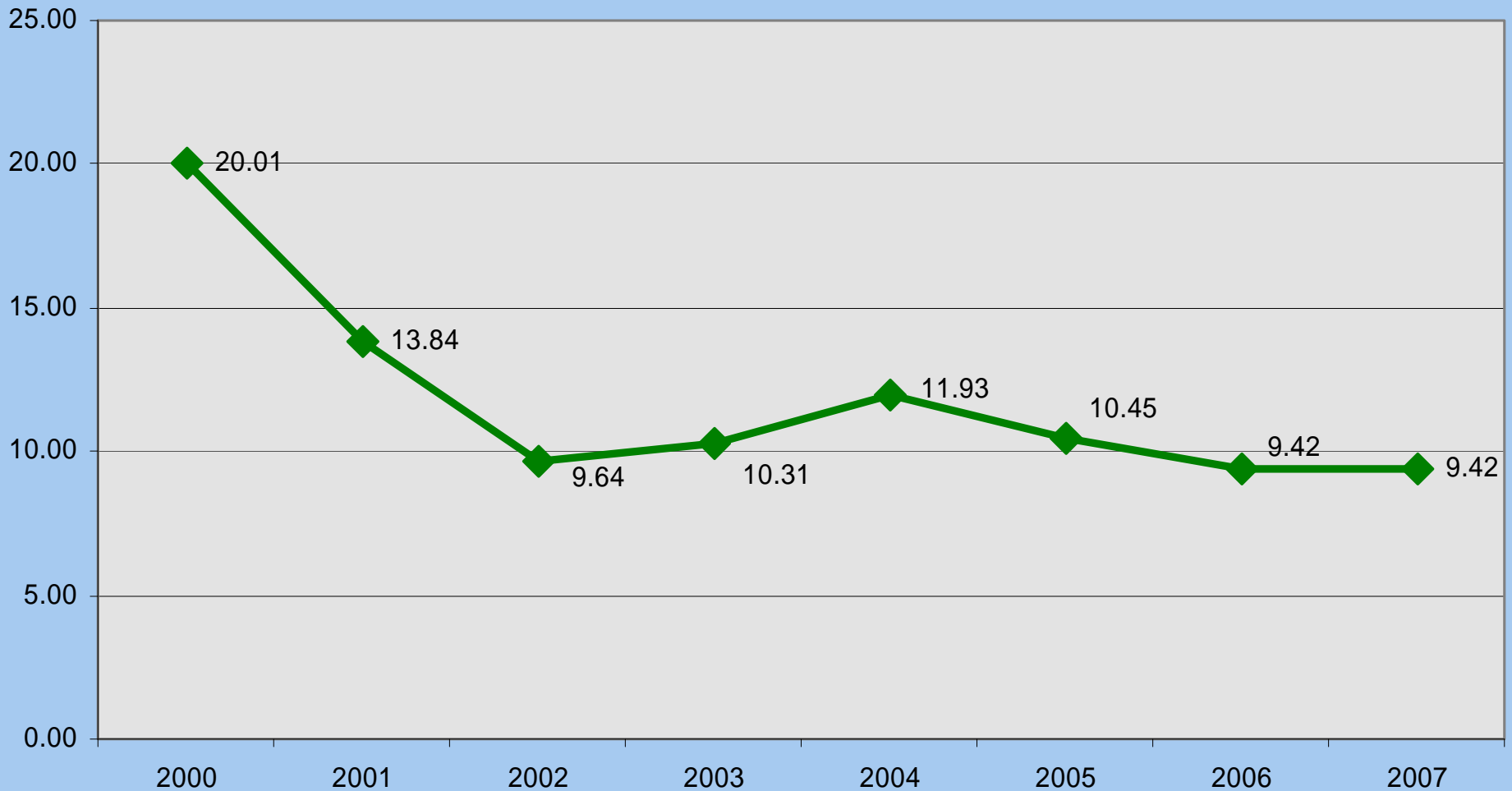
HONDURAS: Malaria Microscopy, 2000-2007



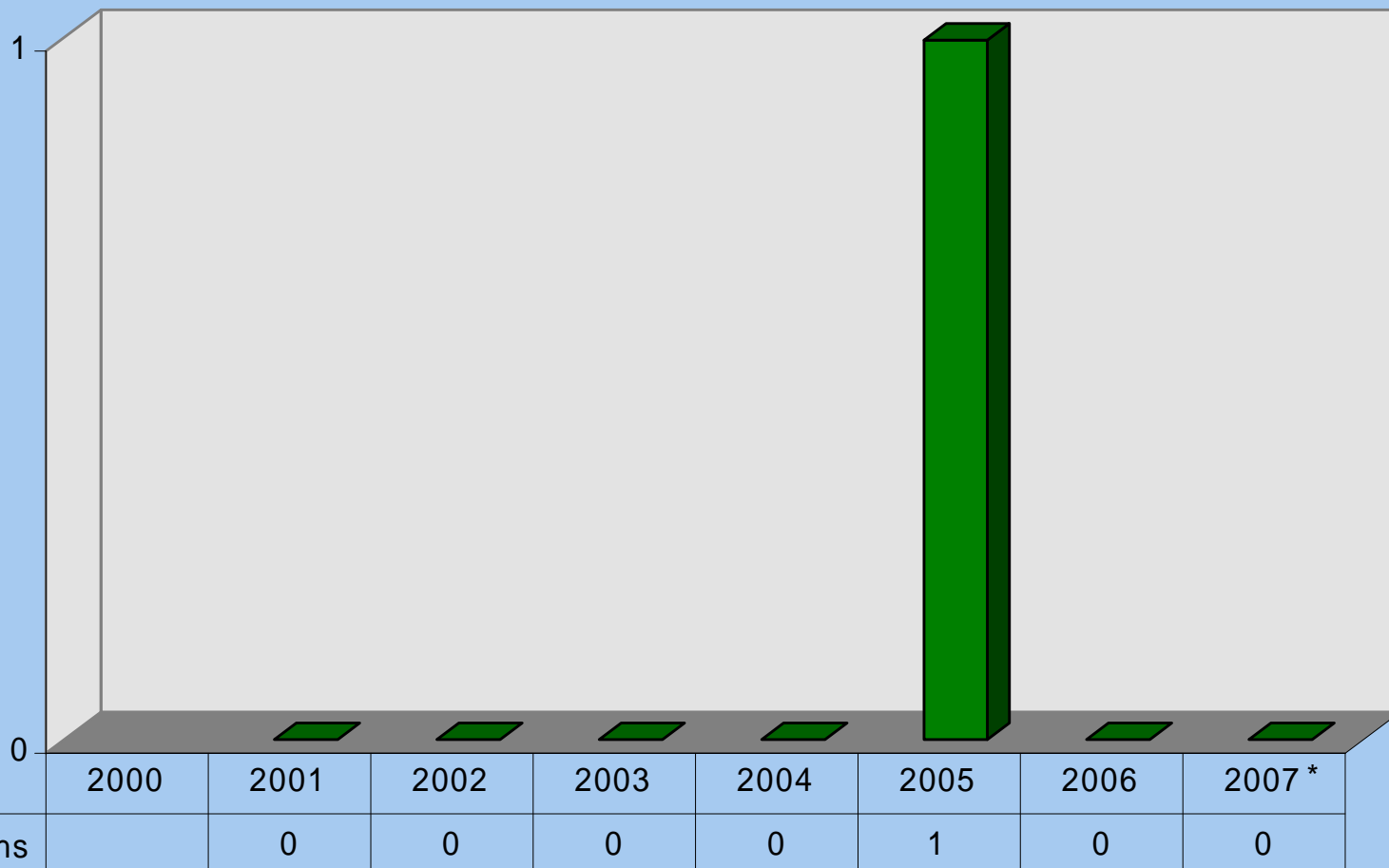
■ Blood Slides Positive
■ Blood Slides Examined

* Data taken from previous year

HONDURAS: Slide Positivity Rate (SPR), 2000-2007



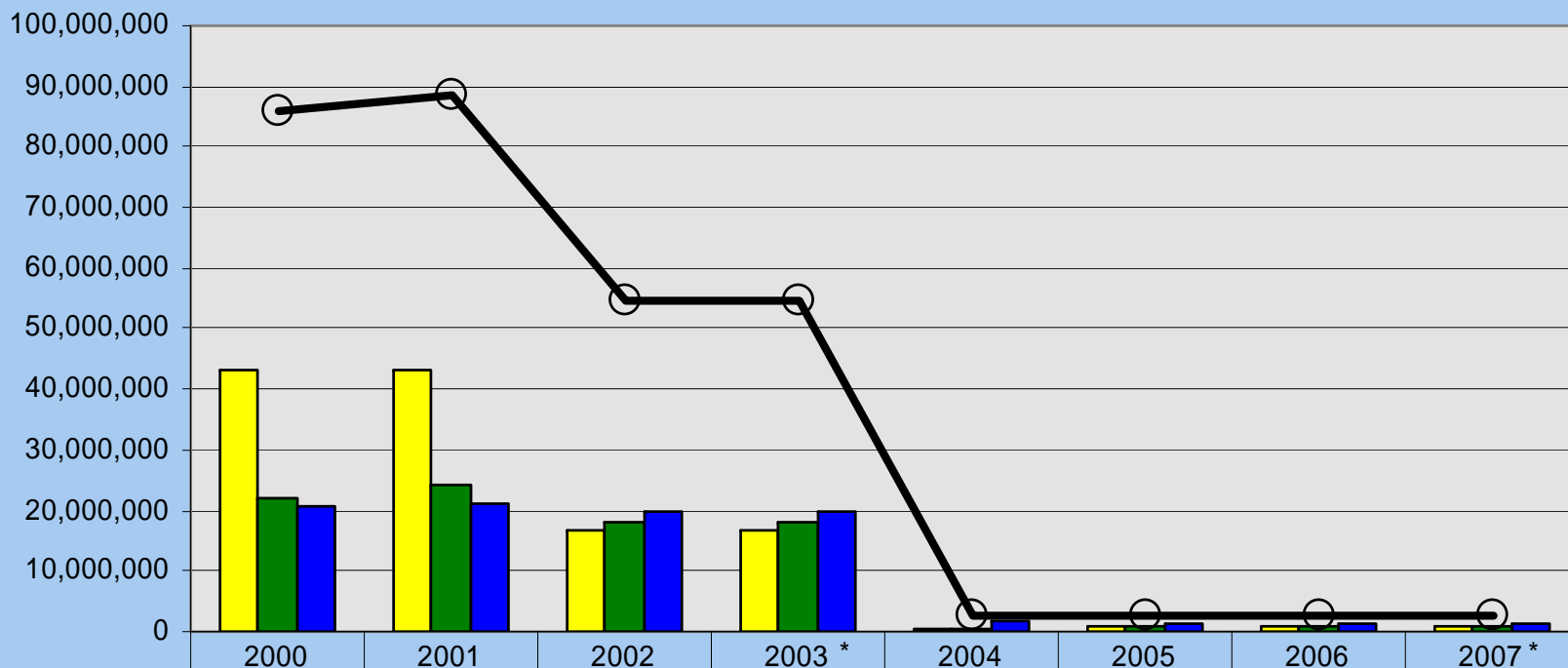
HONDURAS: Malaria Mortality, 2000-2007



* Data taken from previous year

MEXICO

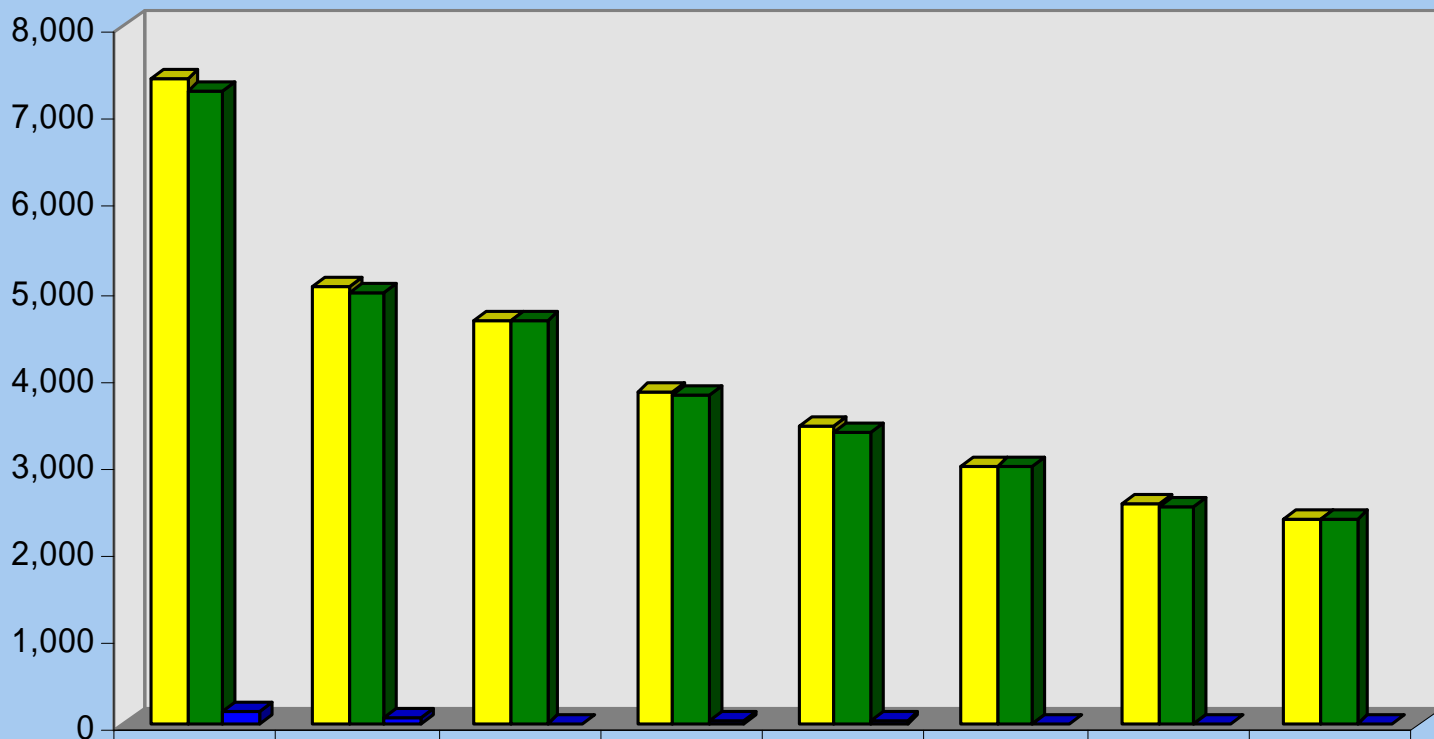
MEXICO: Population at Ecological Risk of Malaria Transmission, 2000-2007



 Low Risk Population	43,007,000	43,376,000	16,941,000	16,941,000	484,000	953,000	952,578	952,578
 Medium Risk Population	22,225,000	24,026,000	18,034,000	18,034,000	531,000	726,000	726,003	726,003
 High Risk Population	20,553,000	21,313,000	19,673,000	19,673,000	1,805,000	1,128,000	1,127,623	1,127,623
 Total Population at Risk	85,785,000	88,715,000	54,648,000	54,648,000	2,820,000	2,807,000	2,806,204	2,806,204

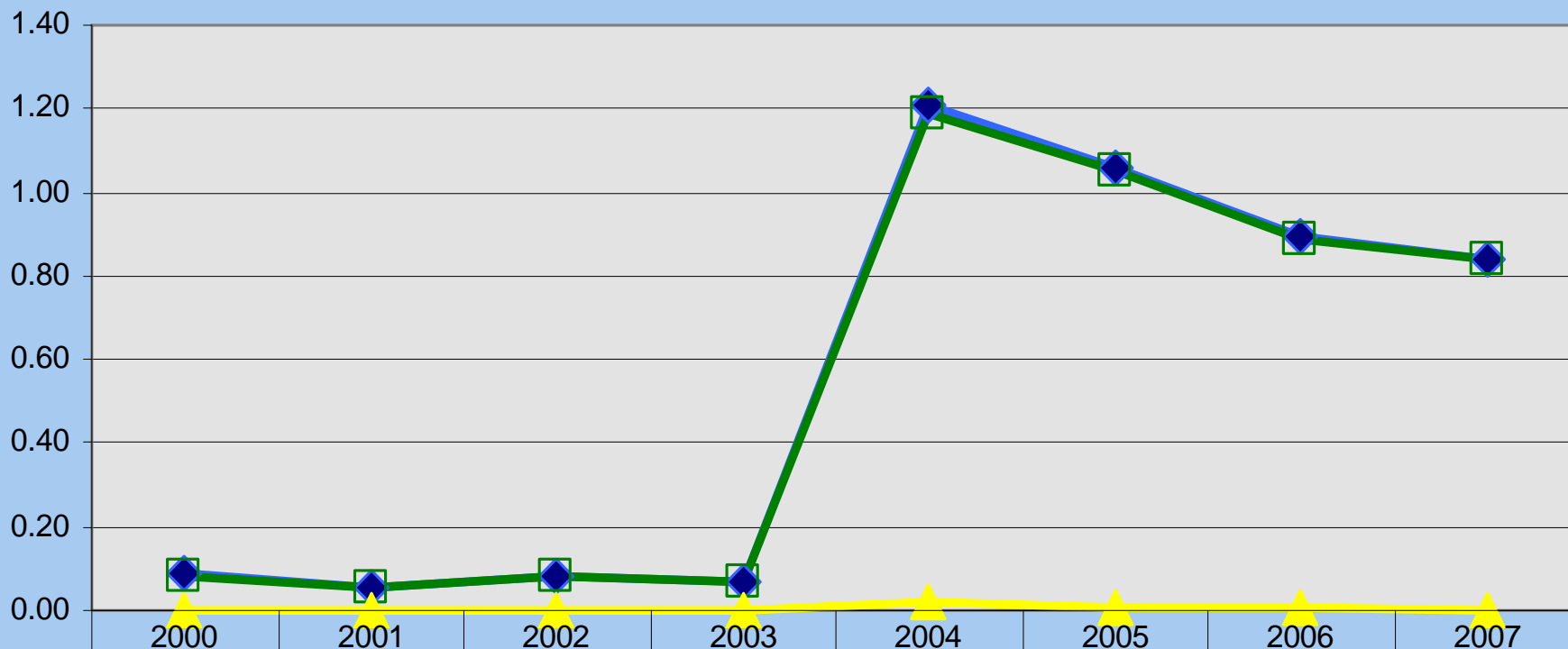
* Data taken from previous year

MEXICO: Malaria Morbidity, 2000-2007



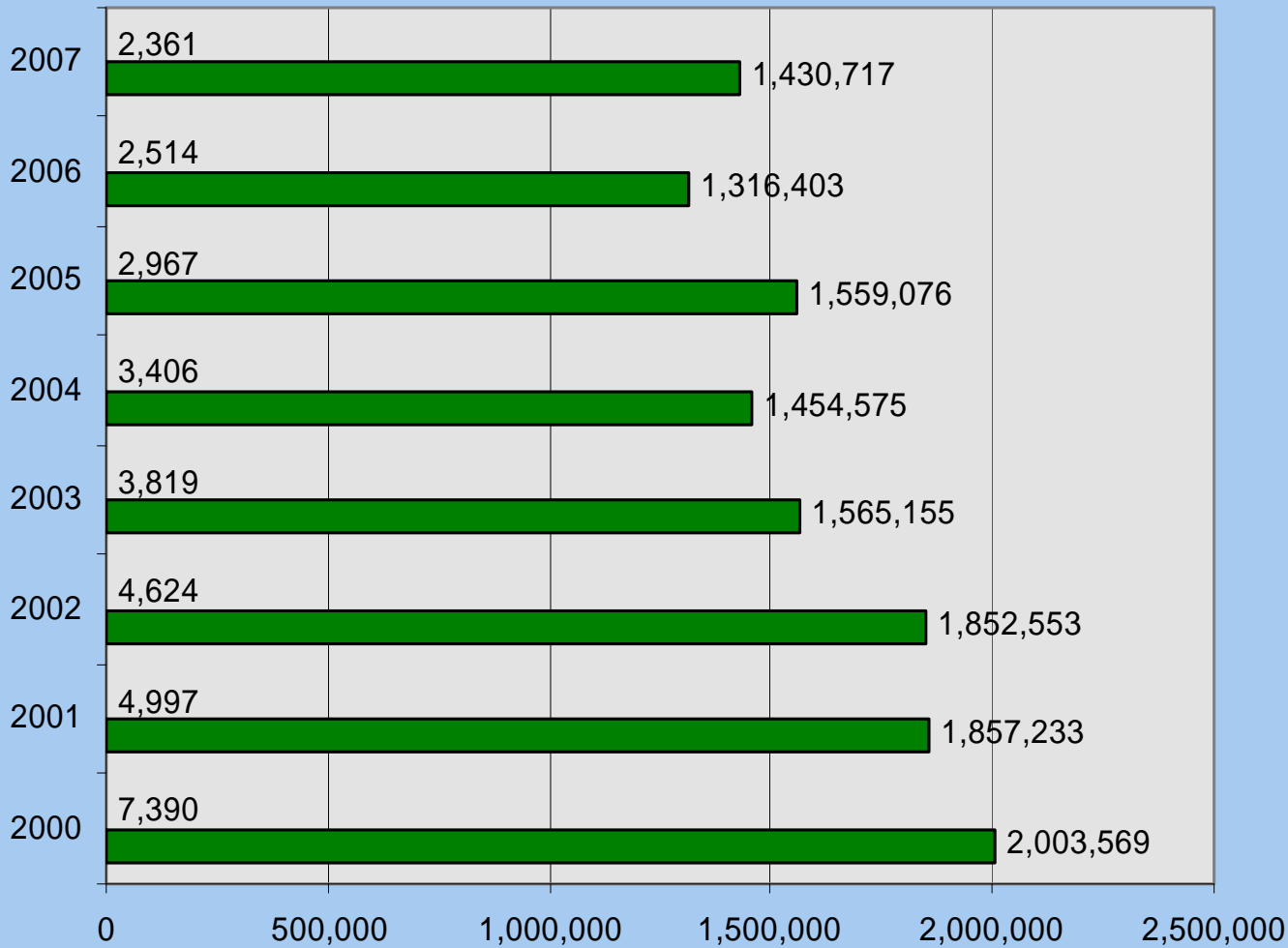
	2000	2001	2002	2003	2004	2005	2006	2007
■ No. of Cases	7,390	4,997	4,624	3,819	3,406	2,967	2,514	2,361
■ <i>P. vivax</i>	7,259	4,927	4,605	3,775	3,357	2,945	2,498	2,357
■ <i>P. falciparum</i> & mixed	133	70	19	44	51	22	16	4

MEXICO: Annual Parasitic Index (API), Annual Index of *P. vivax* (AVI) and Annual Index of *P. falciparum* (AFI), 2000-2007



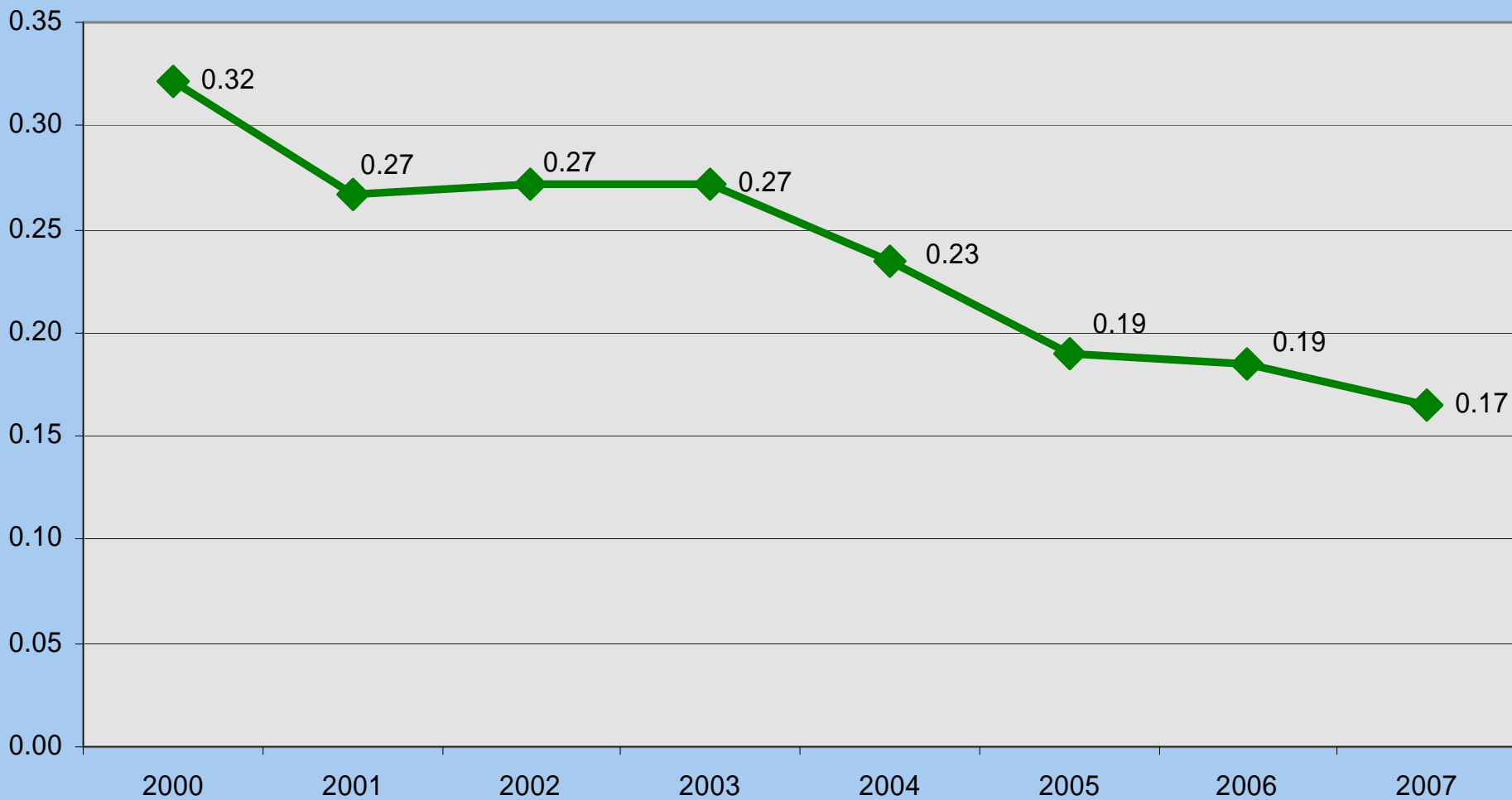
◆ API	0.09	0.06	0.08	0.07	1.21	1.06	0.90	0.84
■ AVI	0.08	0.06	0.08	0.07	1.19	1.05	0.89	0.84
▲ AFI	0.00	0.00	0.00	0.00	0.02	0.01	0.01	0.00

MEXICO: Malaria Microscopy, 2000-2007

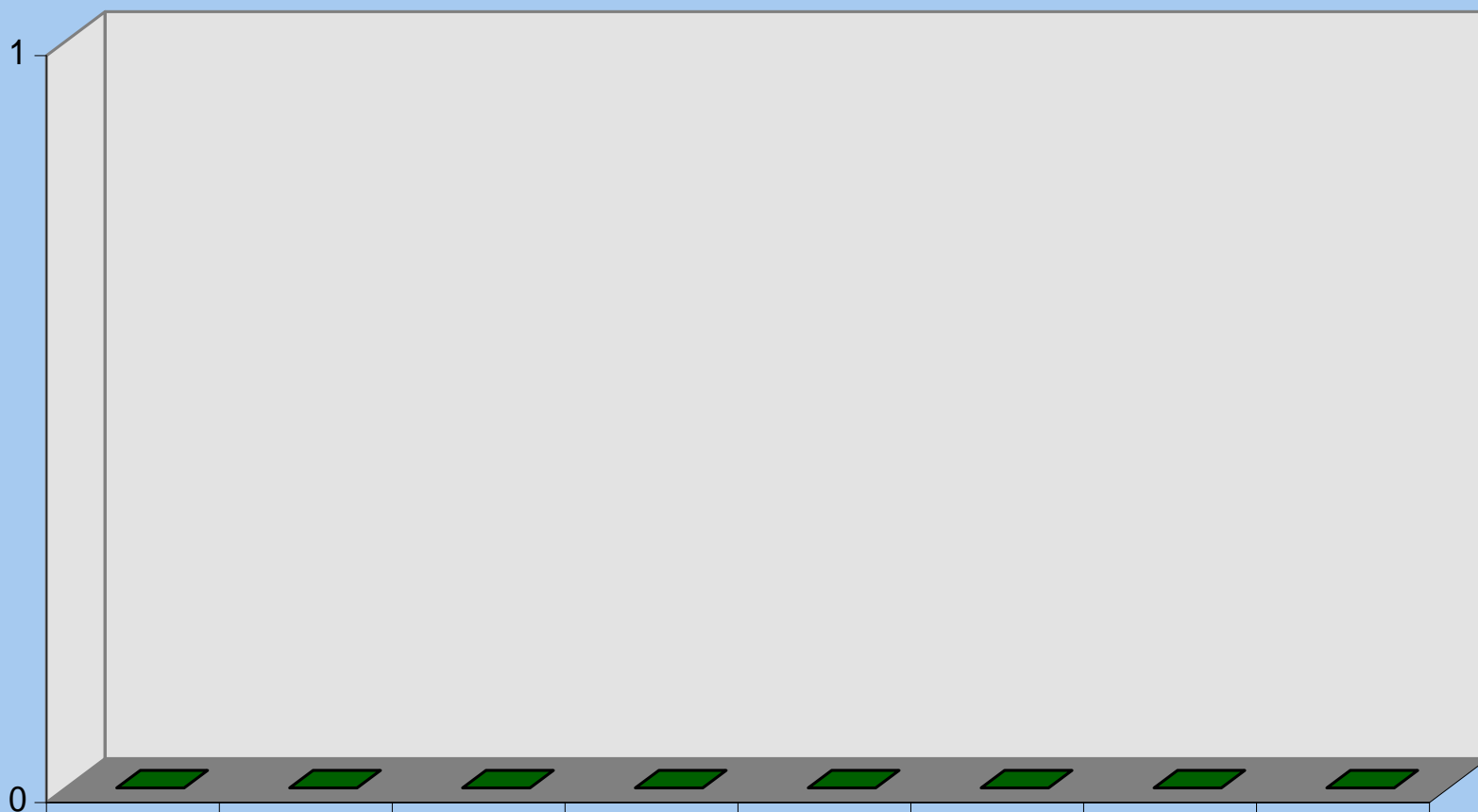


■ Blood Slides Positive
■ Blood Slides Examined

MEXICO: Slide Positivity Rate (SPR), 2000-2007



MEXICO: Malaria Mortality, 2000-2007

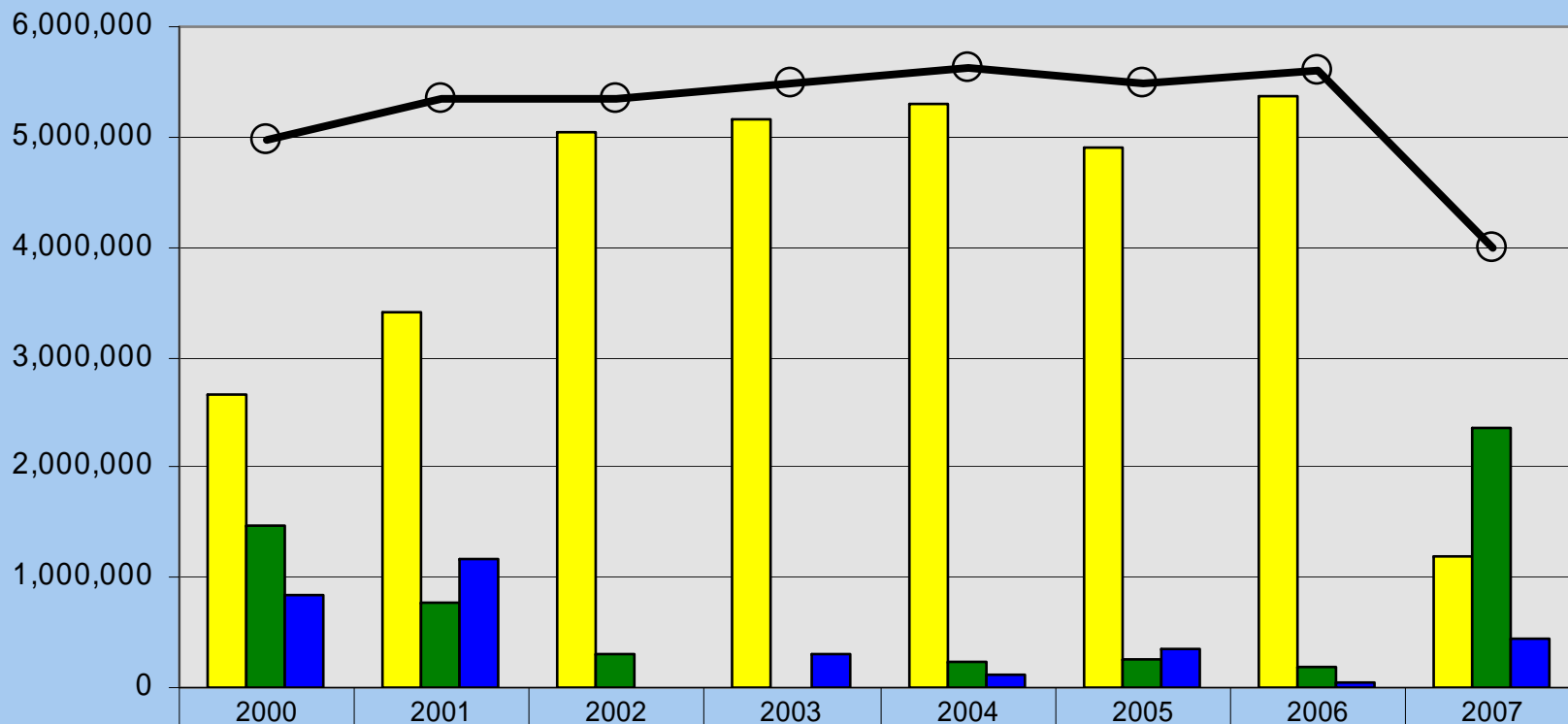






■ No. of Deaths

	2000	2001	2002	2003	2004	2005	2006	2007
No. of Deaths	0	0	0	0	0	0	0	0

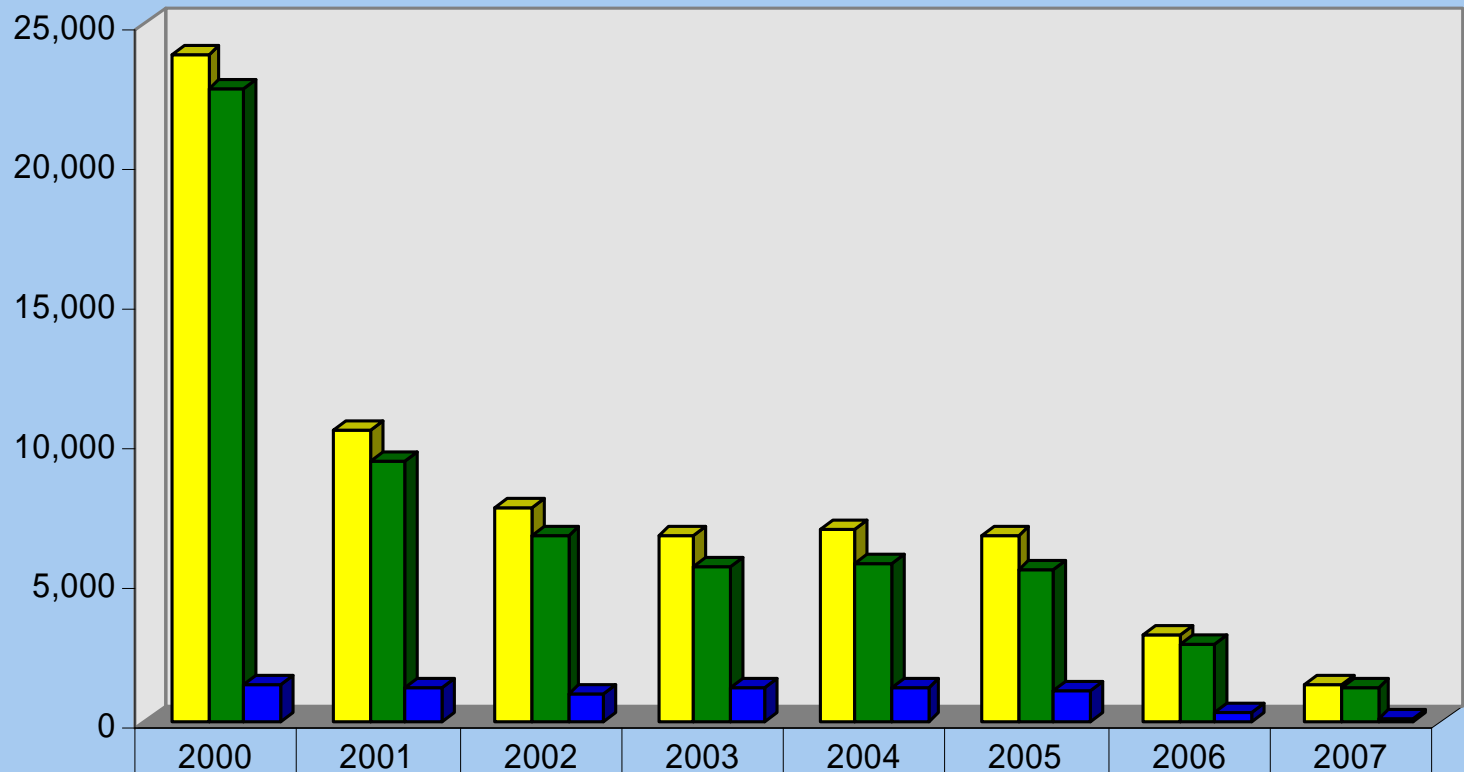
NICARAGUA

NICARAGUA: Population at Ecological Risk of Malaria Transmission, 2000-2007



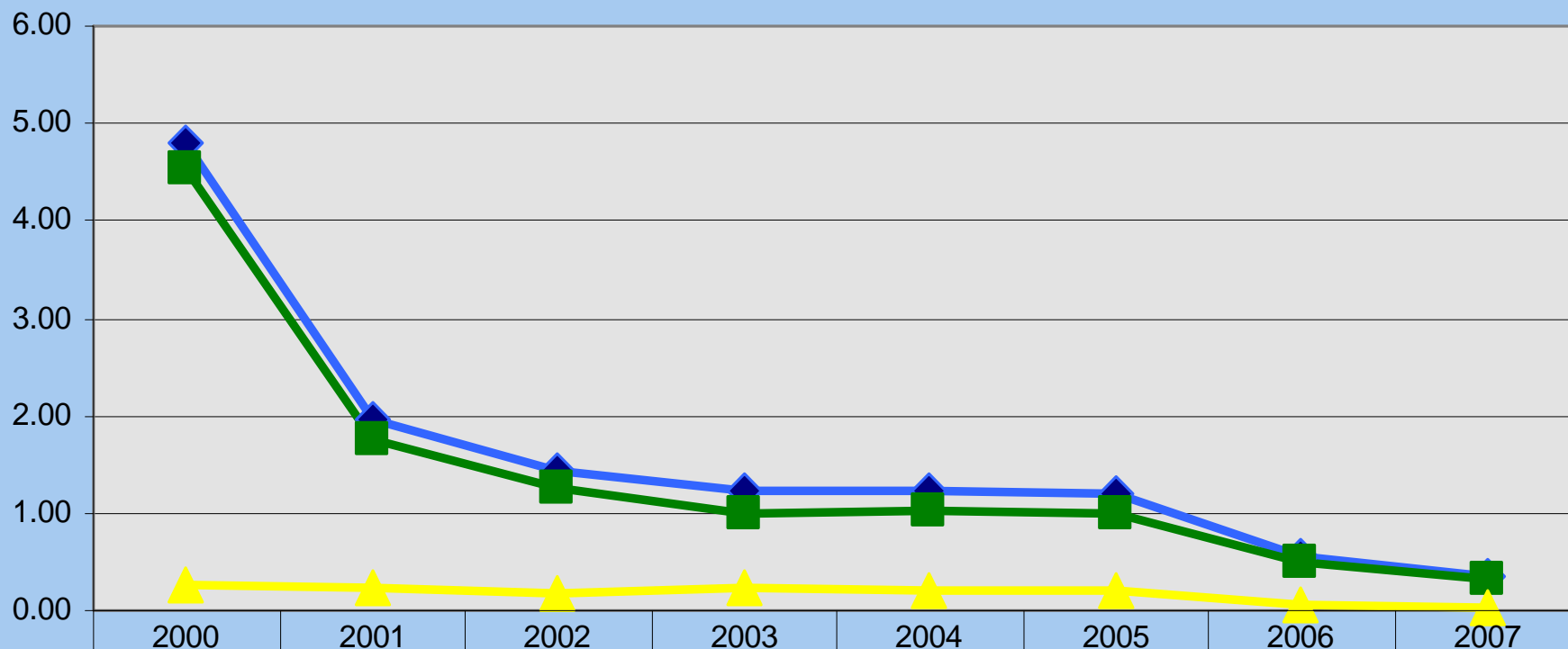
 Low Risk Population	2,670,000	3,418,000	5,038,000	5,171,000	5,297,000	4,897,000	5,381,000	1,193,624
 Medium Risk Population	1,478,000	759,000	303,000	0	226,000	246,000	187,000	2,351,271*
 High Risk Population	832,000	1,165,000	0	311,000	109,000	340,000	36,000	451,197*
 Total Population at Risk	4,980,000	5,342,000	5,341,000	5,482,000	5,632,000	5,483,000	5,604,000	3,996,092

NICARAGUA: Malaria Morbidity, 2000-2007



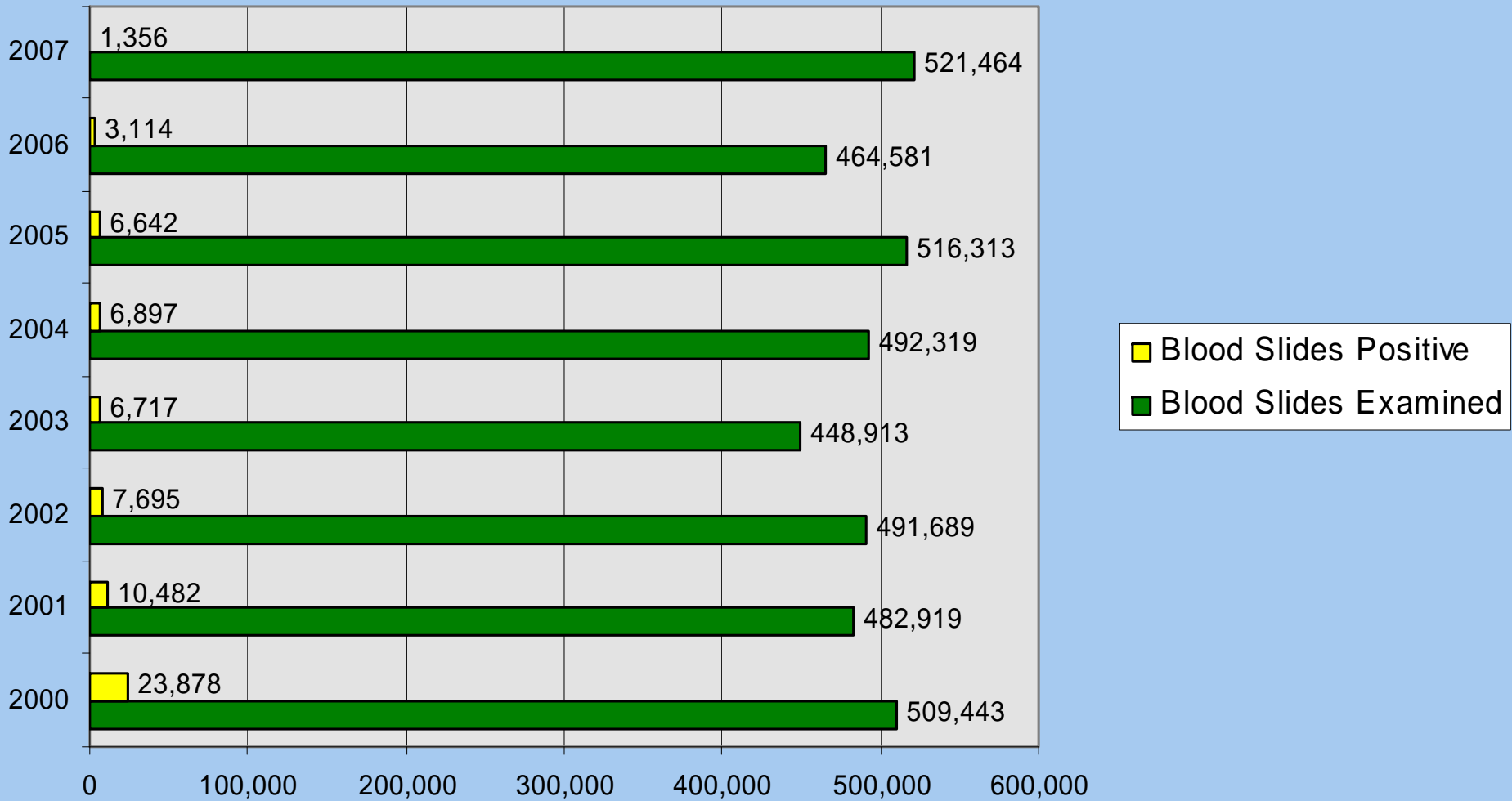
■ No. of Cases	23,878	10,482	7,695	6,717	6,897	6,642	3,114	1,356
■ P. vivax	22,645	9,304	6,700	5,525	5,699	5,498	2,784	1,250
■ P. falciparum & mixed	1,369	1,194	995	1,213	1,200	1,114	336	106

NICARAGUA: Annual Parasitic Index (API), Annual Index of *P. vivax* (AVI) and Annual Index of *P. falciparum* (AFI), 2000-2007

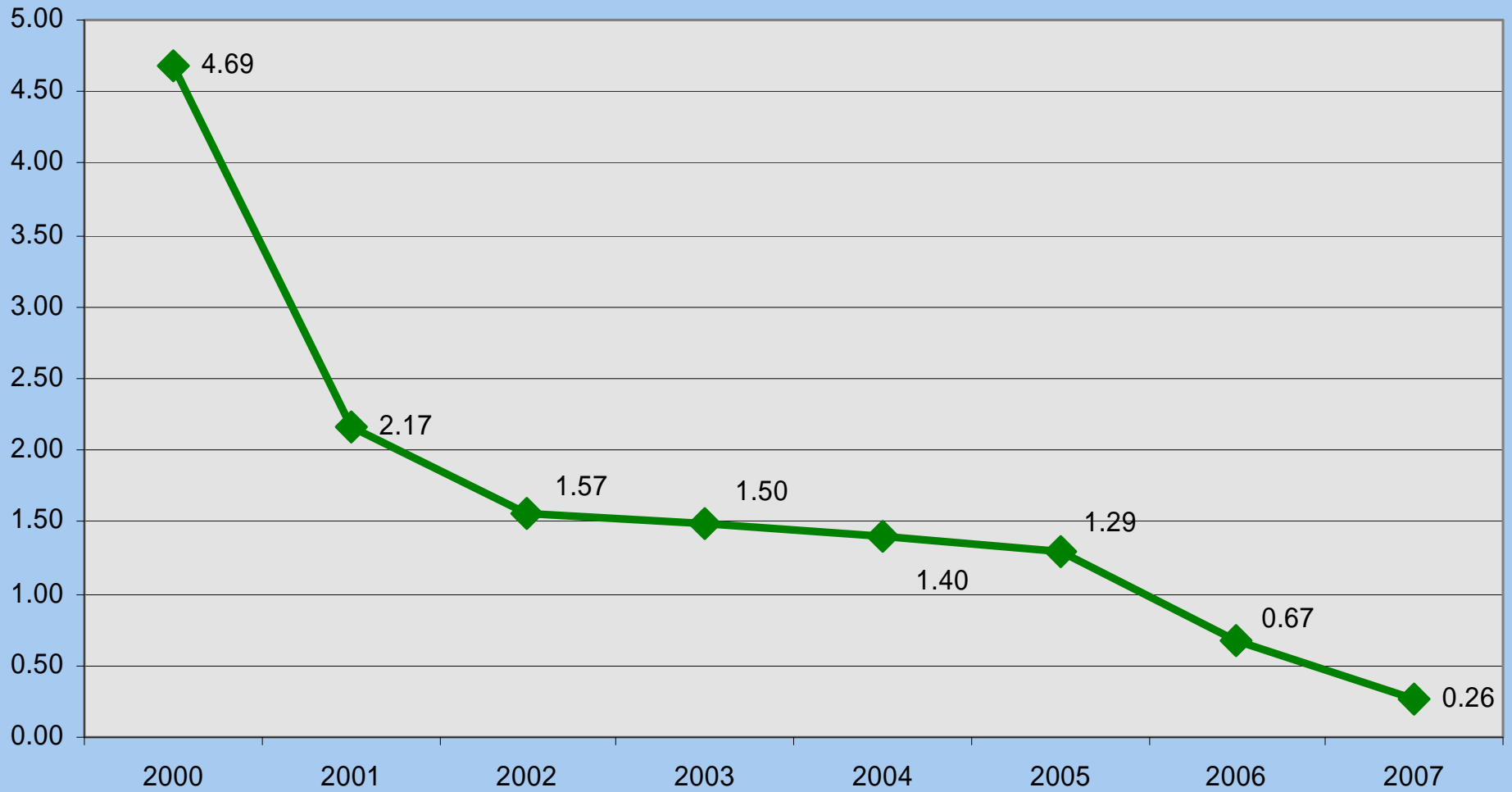


◆ API	4.79	1.96	1.44	1.23	1.22	1.21	0.56	0.34
■ AVI	4.55	1.74	1.25	1.01	1.01	1.00	0.50	0.31
▲ AFI	0.27	0.22	0.19	0.22	0.21	0.20	0.06	0.03

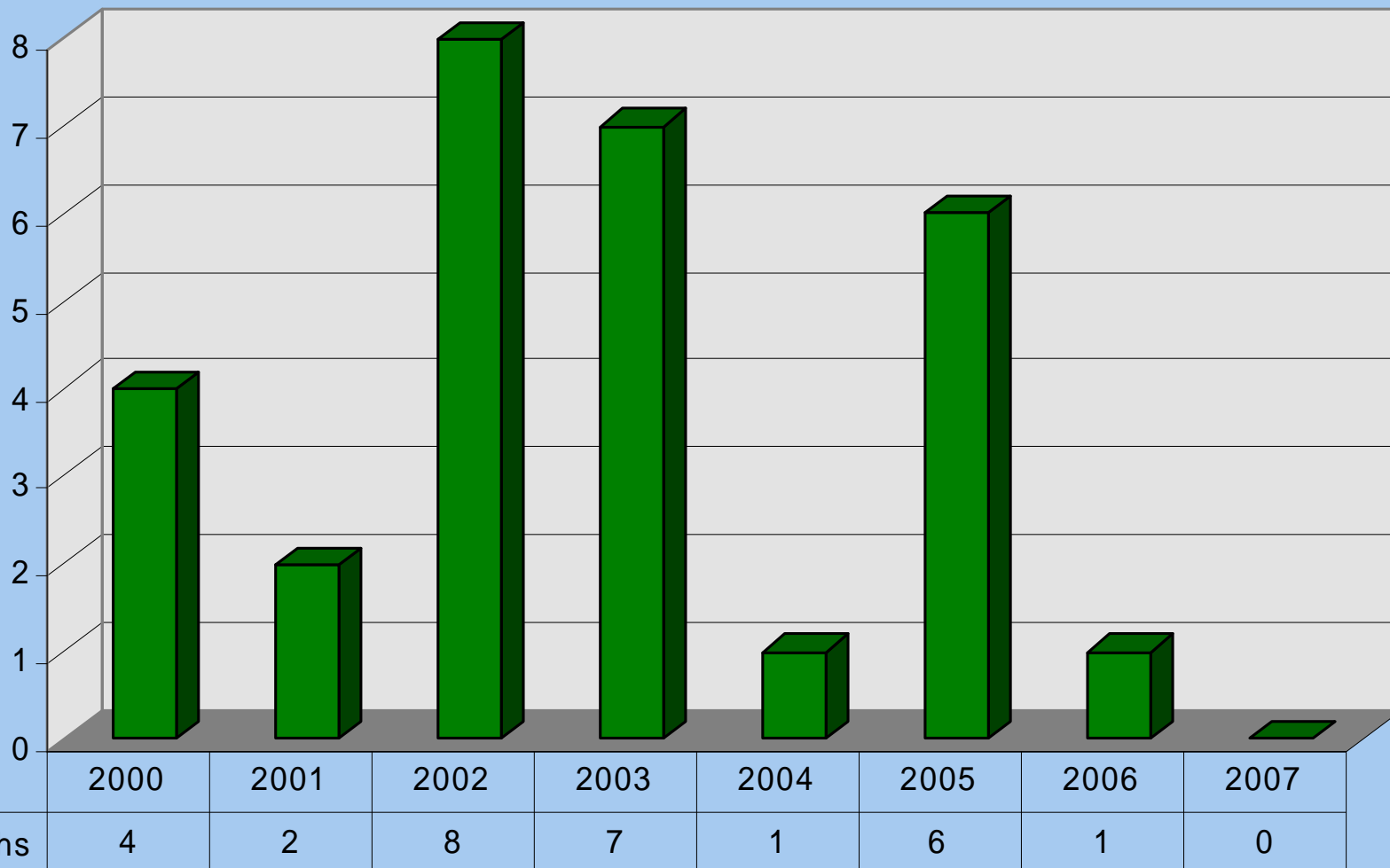
NICARAGUA: Malaria Microscopy, 2000-2007



NICARAGUA: Slide Positivity Rate (SPR), 2000-2007

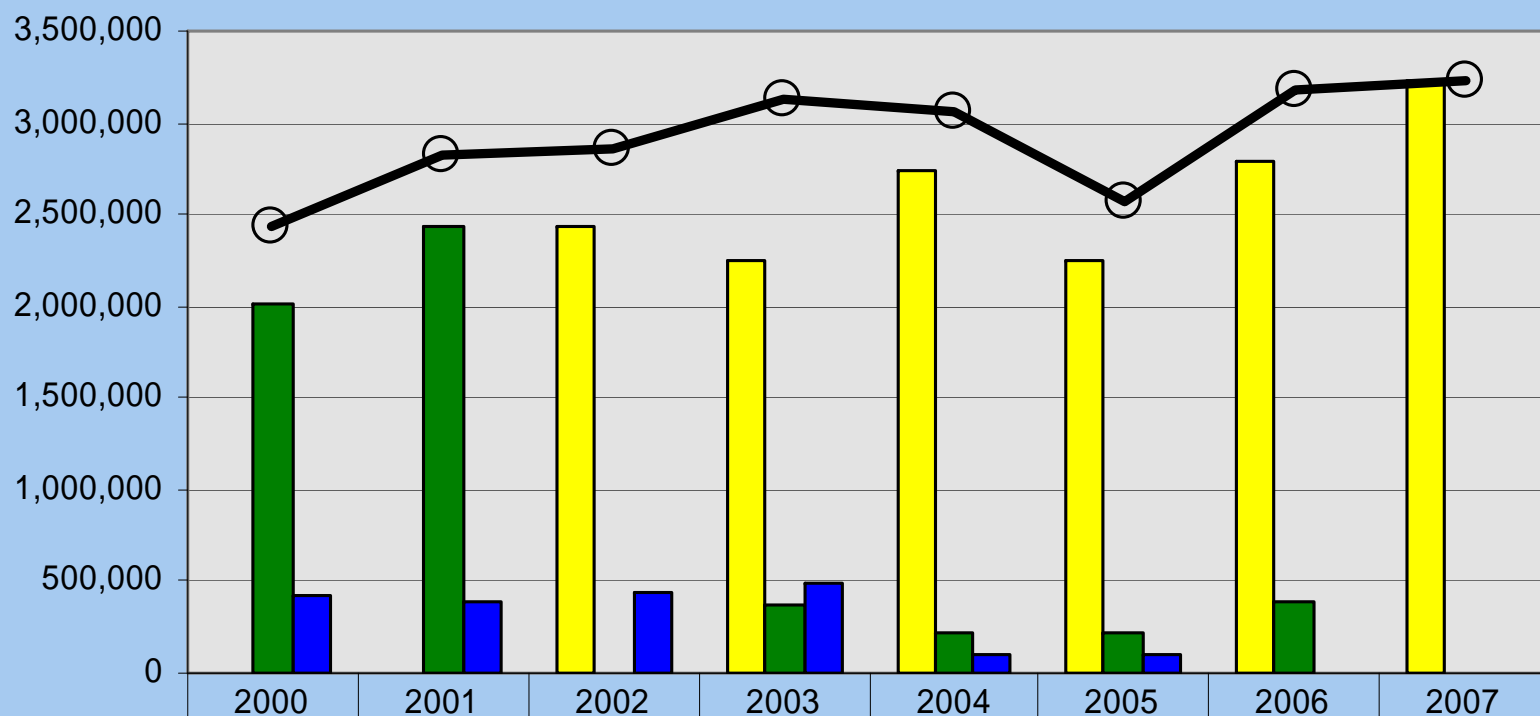






NICARAGUA: Malaria Mortality, 2000-2007



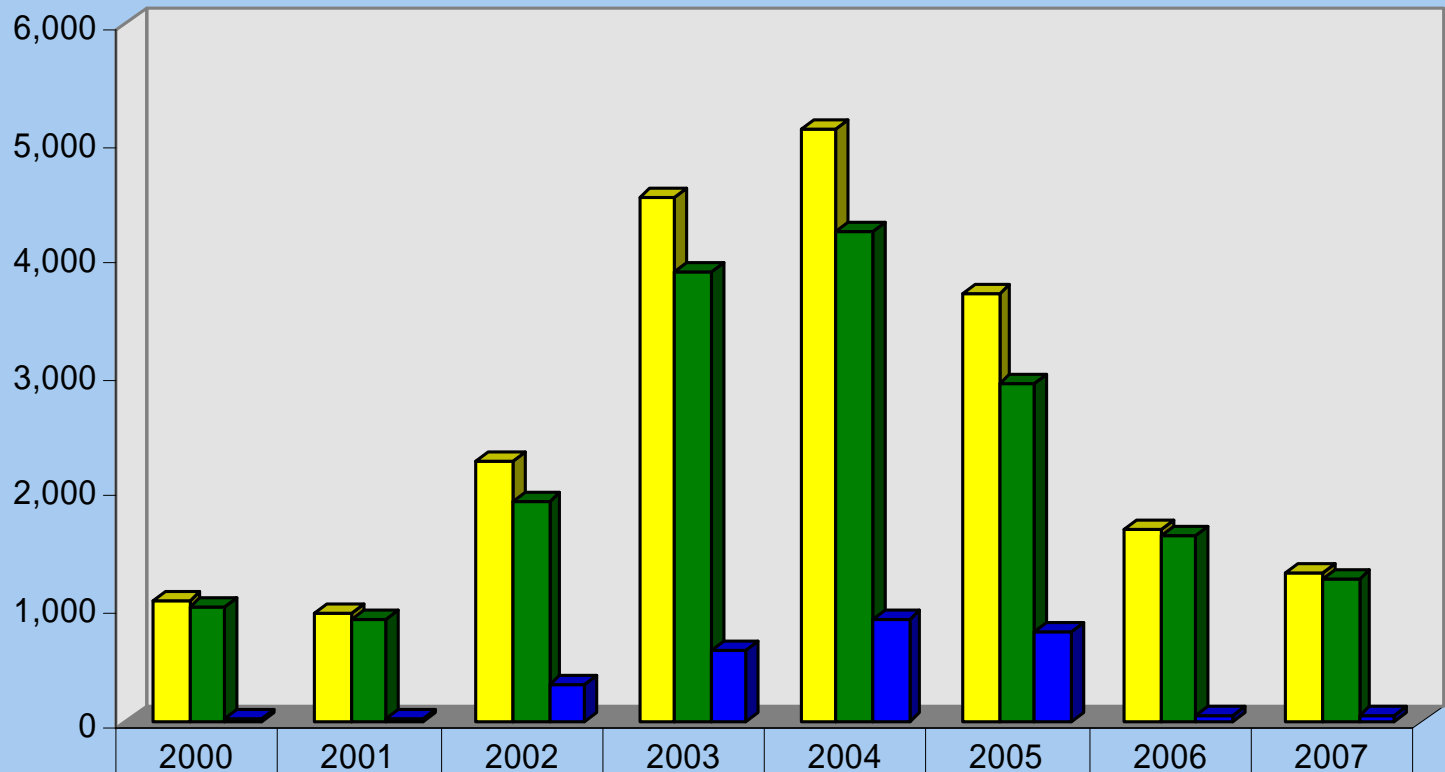
PANAMA

PANAMA: Population at Ecological Risk of Malaria Transmission, 2000-2007



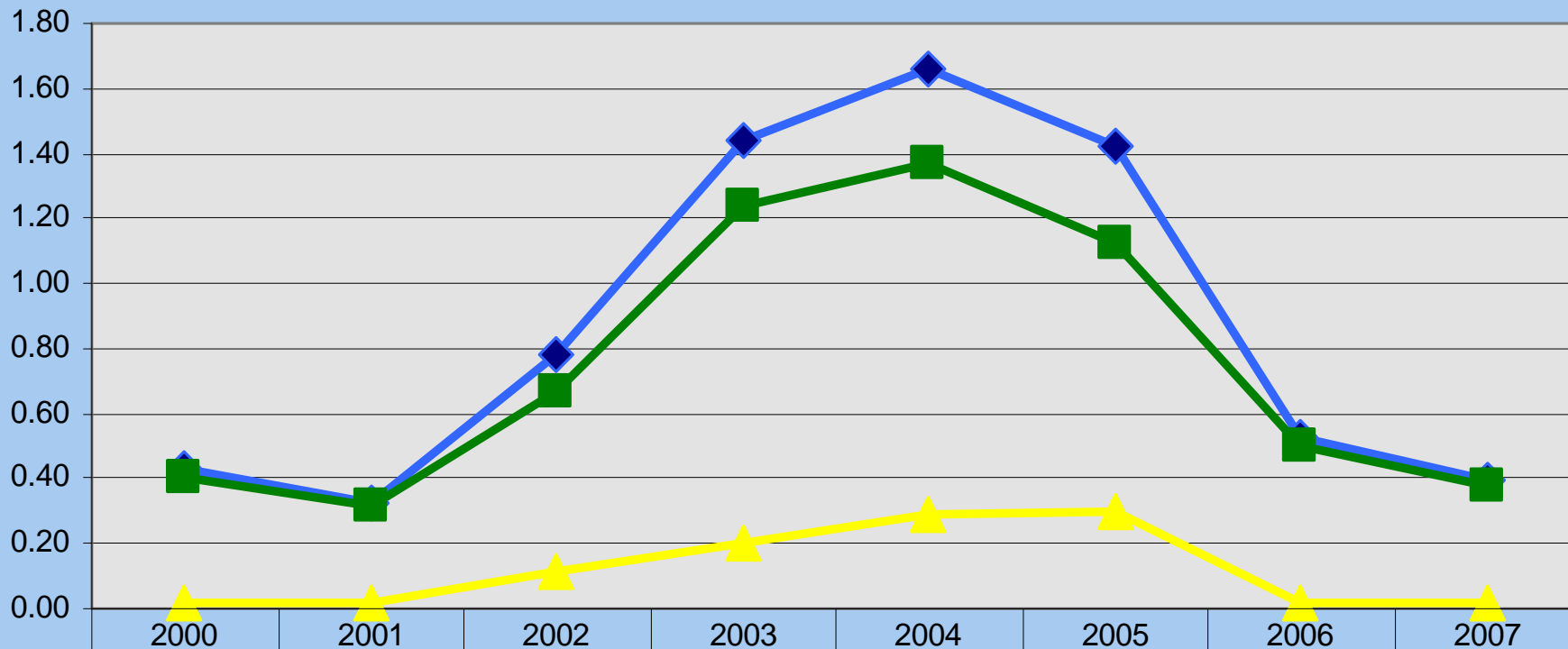
 Low Risk Population	0	0	2,428,000	2,256,000	2,739,000	2,250,000	2,793,000	3,228,357
 Medium Risk Population	2,006,000	2,430,000	0	368,000	221,000	221,000	382,000	0
 High Risk Population	424,000	391,000	435,000	497,000	107,000	107,000	0	0
 Total Population at Risk	2,430,000	2,821,000	2,863,000	3,121,000	3,067,000	2,578,000	3,175,000	3,228,357

PANAMA: Malaria Morbidity, 2000-2007



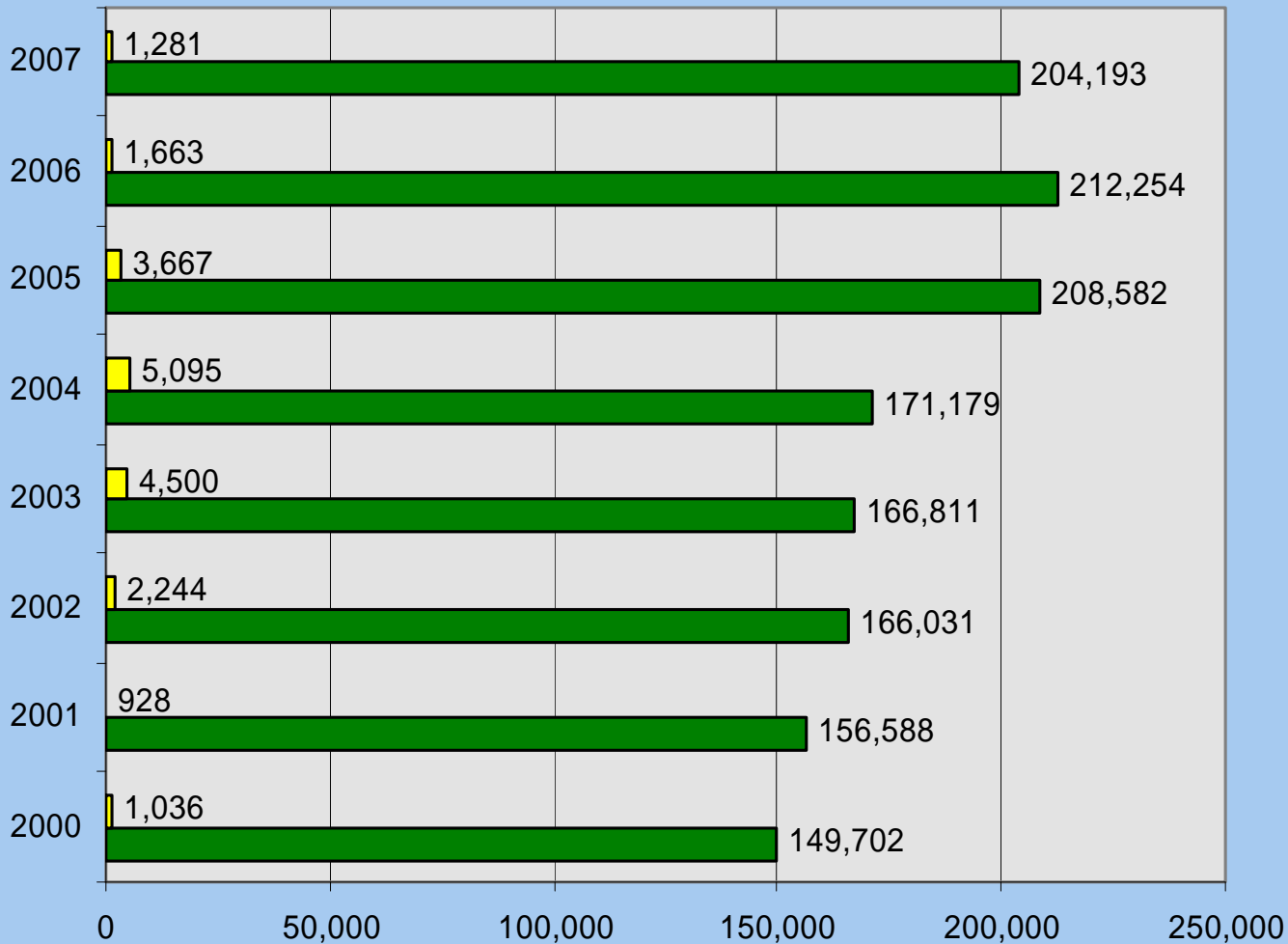
■ No. of Cases	1,036	928	2,244	4,500	5,095	3,667	1,663	1,281
■ P. vivax	991	889	1,907	3,873	4,213	2,901	1,601	1,233
■ P. falciparum & mixed	45	39	337	627	882	766	62	48

PANAMA: Annual Parasitic Index (API), Annual Index of *P. vivax* (AVI) and Annual Index of *P. falciparum* (AFI), 2000-2007



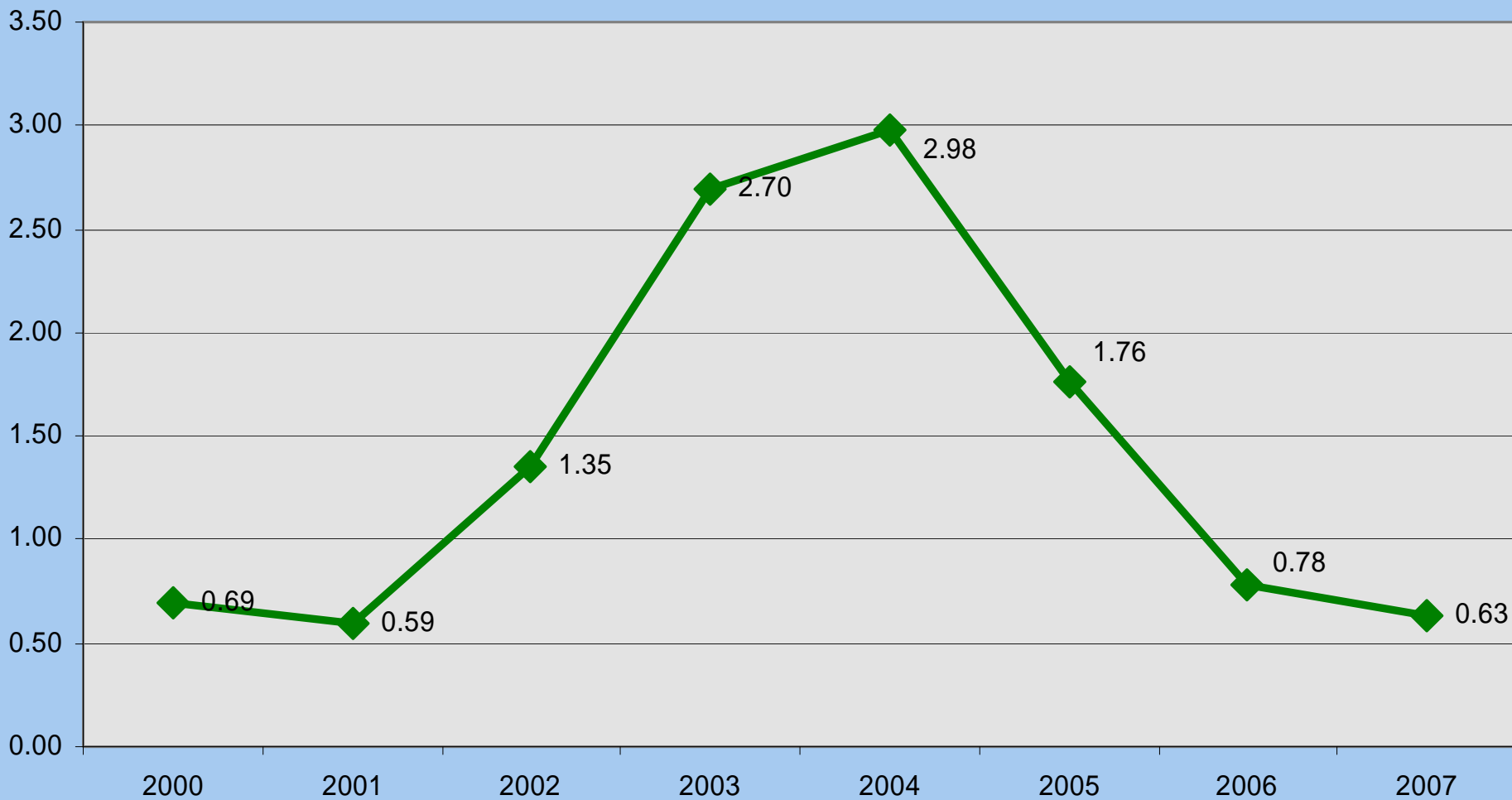
API	0.43	0.33	0.78	1.44	1.66	1.42	0.52	0.40
AVI	0.41	0.32	0.67	1.24	1.37	1.13	0.50	0.38
AFI	0.02	0.01	0.12	0.20	0.29	0.30	0.02	0.01

PANAMA: Malaria Microscopy, 2000-2007

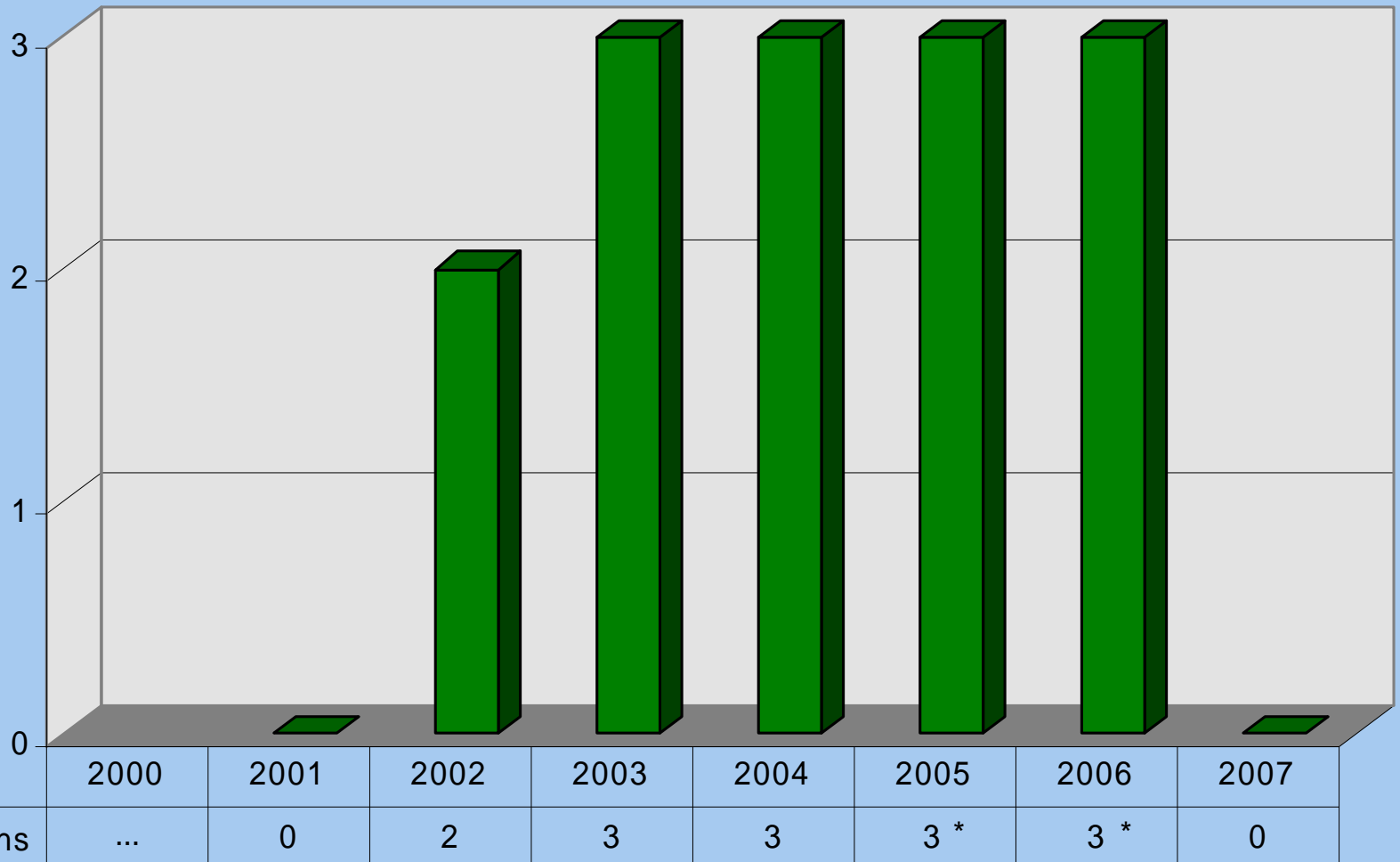


■ Blood Slides Positive
■ Blood Slides Examined

PANAMA: Slide Positivity Rate (SPR), 2000-2007



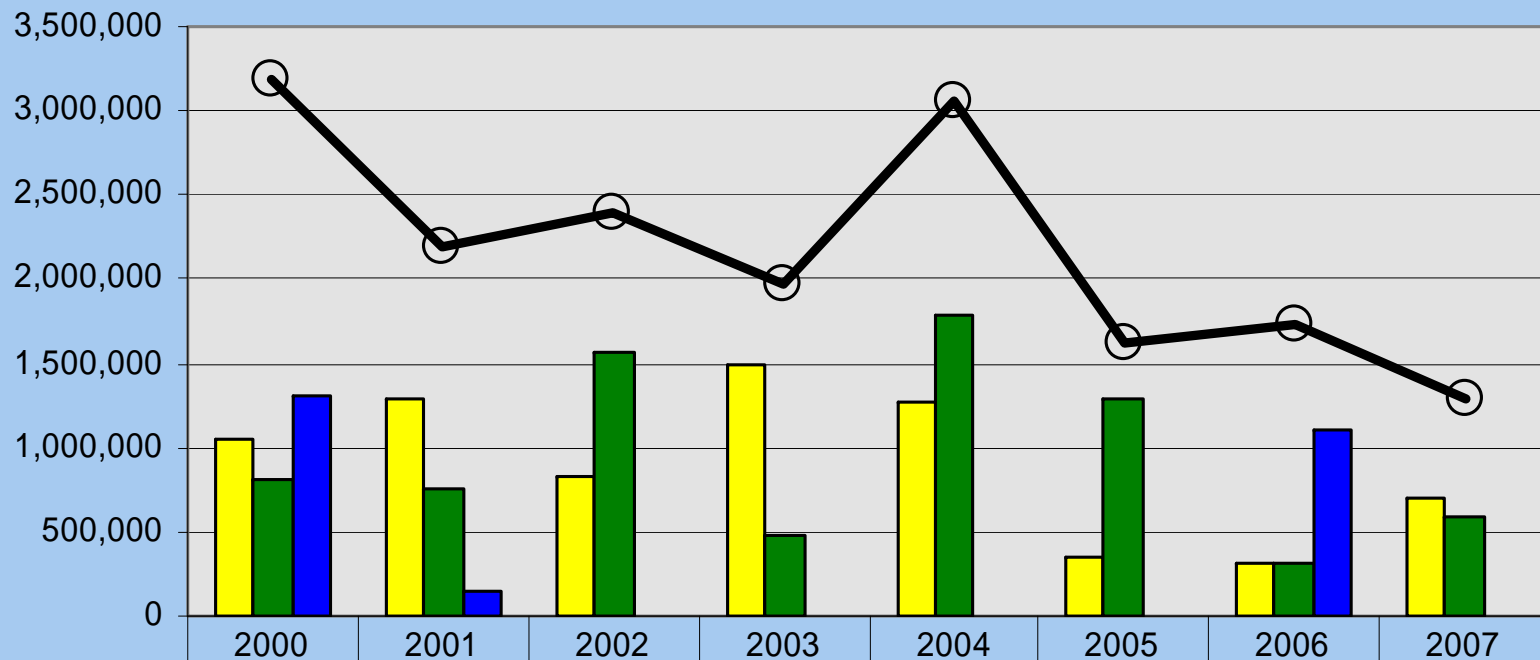
PANAMA: Malaria Mortality, 2000-2007







* Data taken from previous year

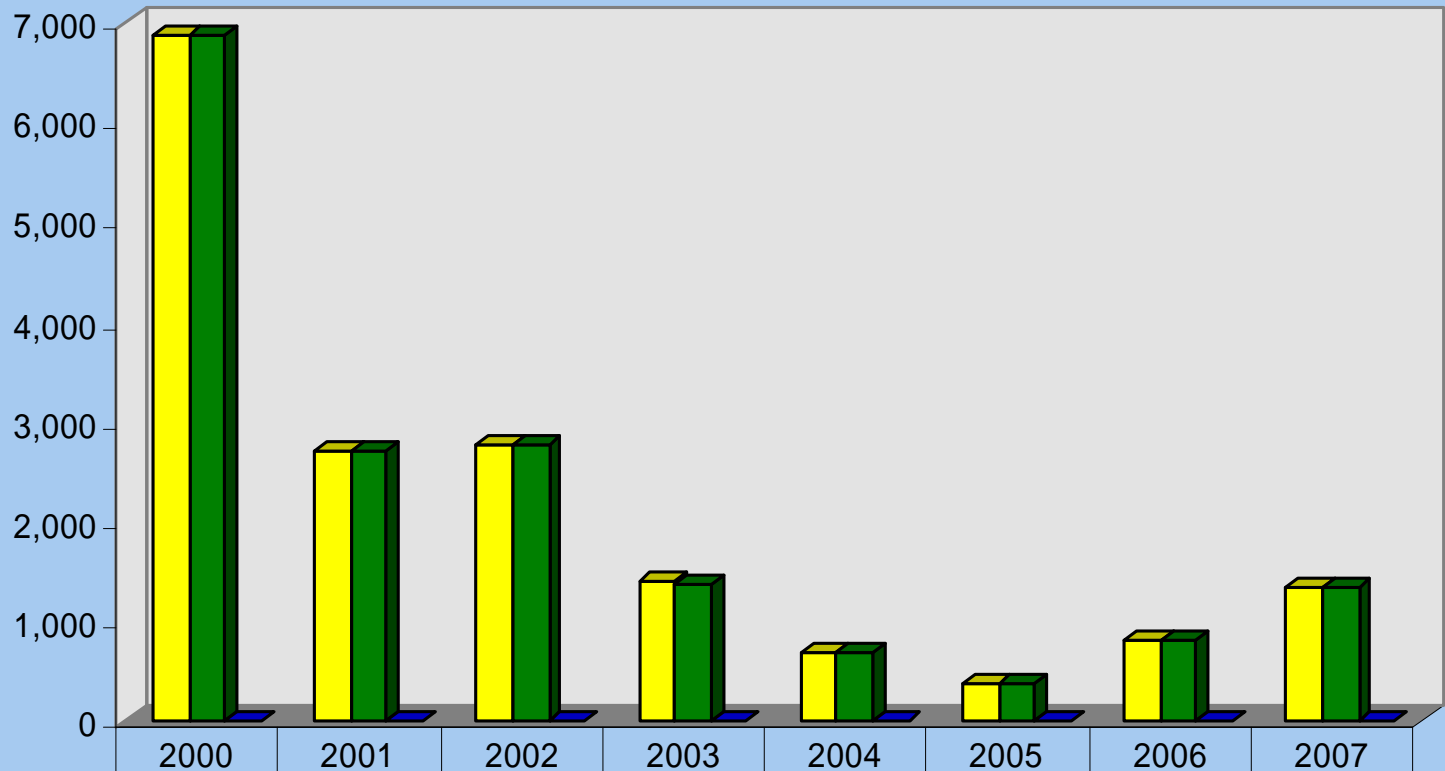
PARAGUAY

PARAGUAY: Population at Ecological Risk of Malaria Transmission, 2000-2007



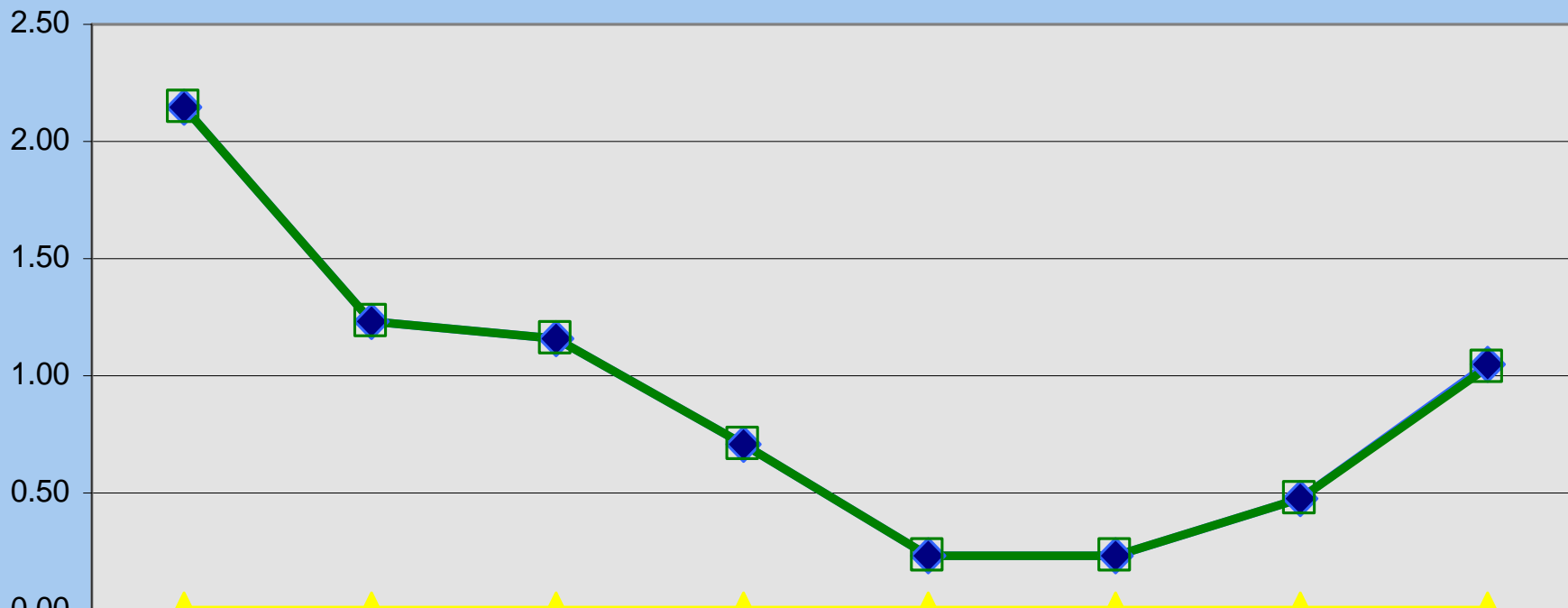
 Low Risk Population	1,054,000	1,291,000	834,000	1,492,000	1,263,000	348,000	319,000	701,968
 Medium Risk Population	818,000	752,000	1,557,000	480,000	1,786,000	1,281,000	318,000	584,086
 High Risk Population	1,313,000	150,000	0	0	0	0	1,099,000	0
 Total Population at Risk	3,185,000	2,193,000	2,391,000	1,972,000	3,049,000	1,629,000	1,736,000	1,286,054

PARAGUAY: Malaria Morbidity, 2000-2007



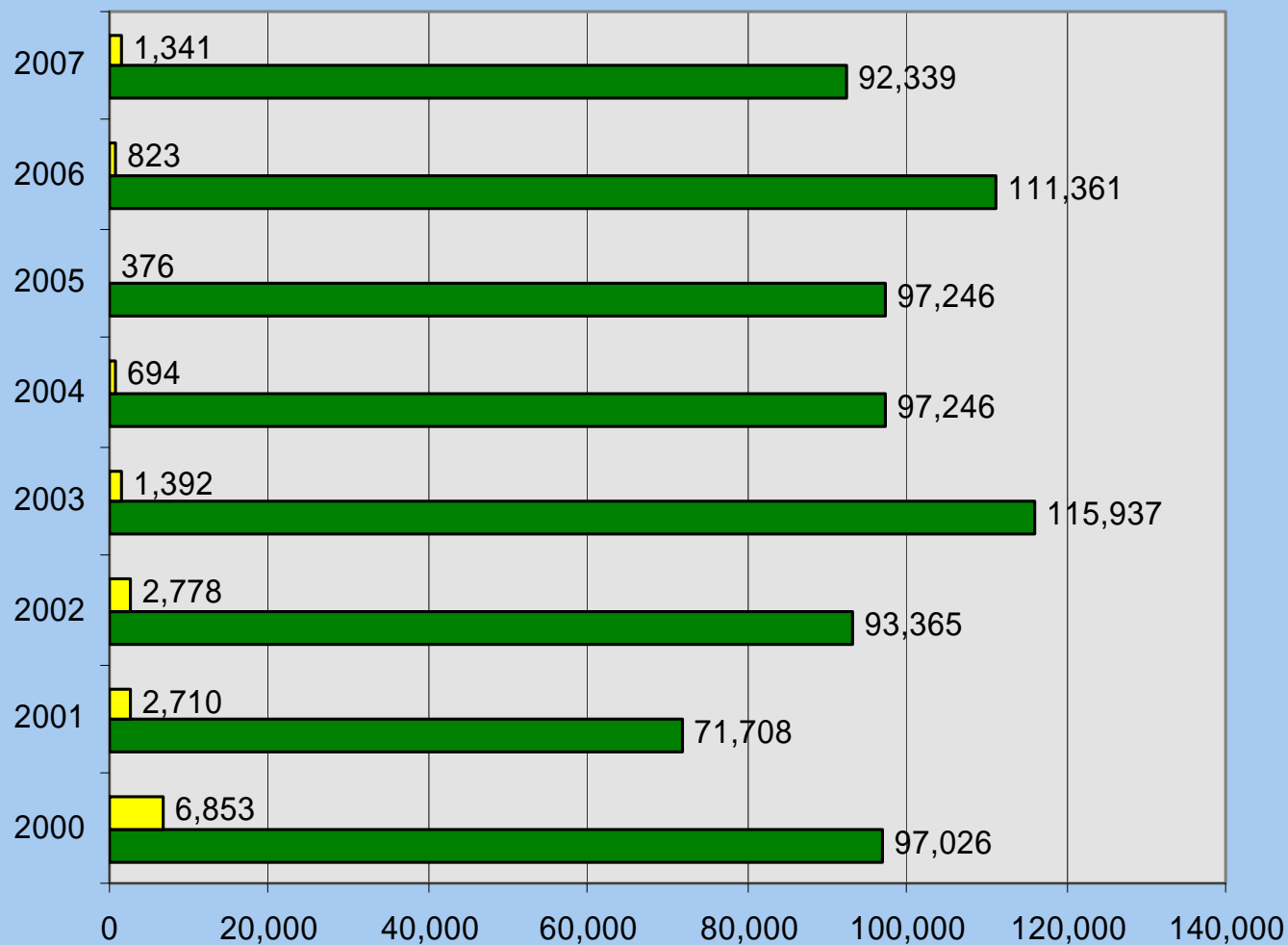
■ No. of Cases	6,853	2,710	2,778	1,392	694	376	823	1,341
■ P. vivax	6,853	2,706	2,777	1,389	693	376	821	1,337
■ P. falciparum & mixed	0	4	0	3	1	0	2	6

PARAGUAY: Annual Parasitic Index (API), Annual Index of *P. vivax* (AVI) and Annual Index of *P. falciparum* (AFI), 2000-2007



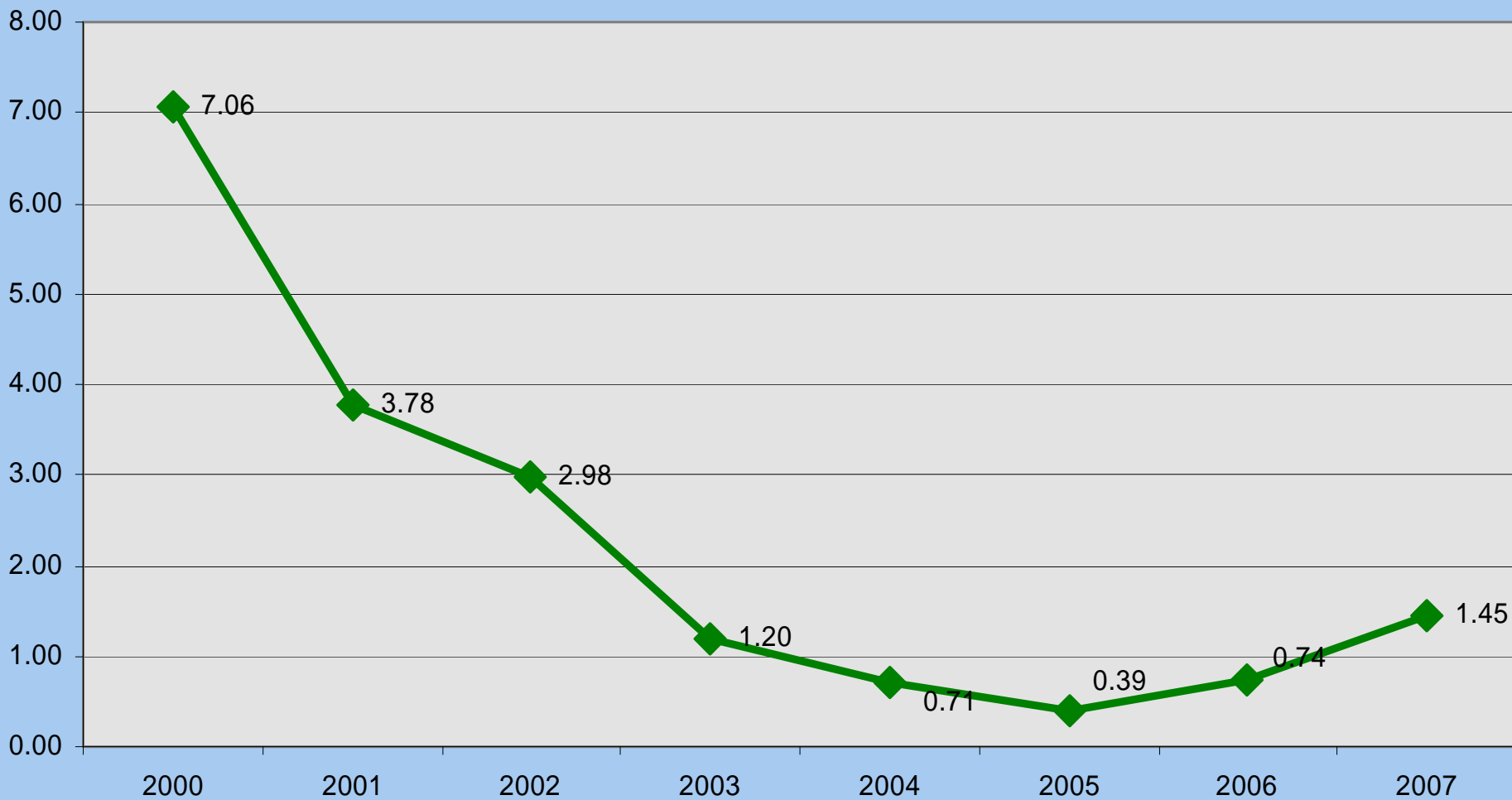
	2000	2001	2002	2003	2004	2005	2006	2007
◆ API	2.15	1.24	1.16	0.71	0.23	0.23	0.47	1.04
■ AVI	2.15	1.23	1.16	0.70	0.23	0.23	0.47	1.04
▲ AFI	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

PARAGUAY: Malaria Microscopy, 2000-2007

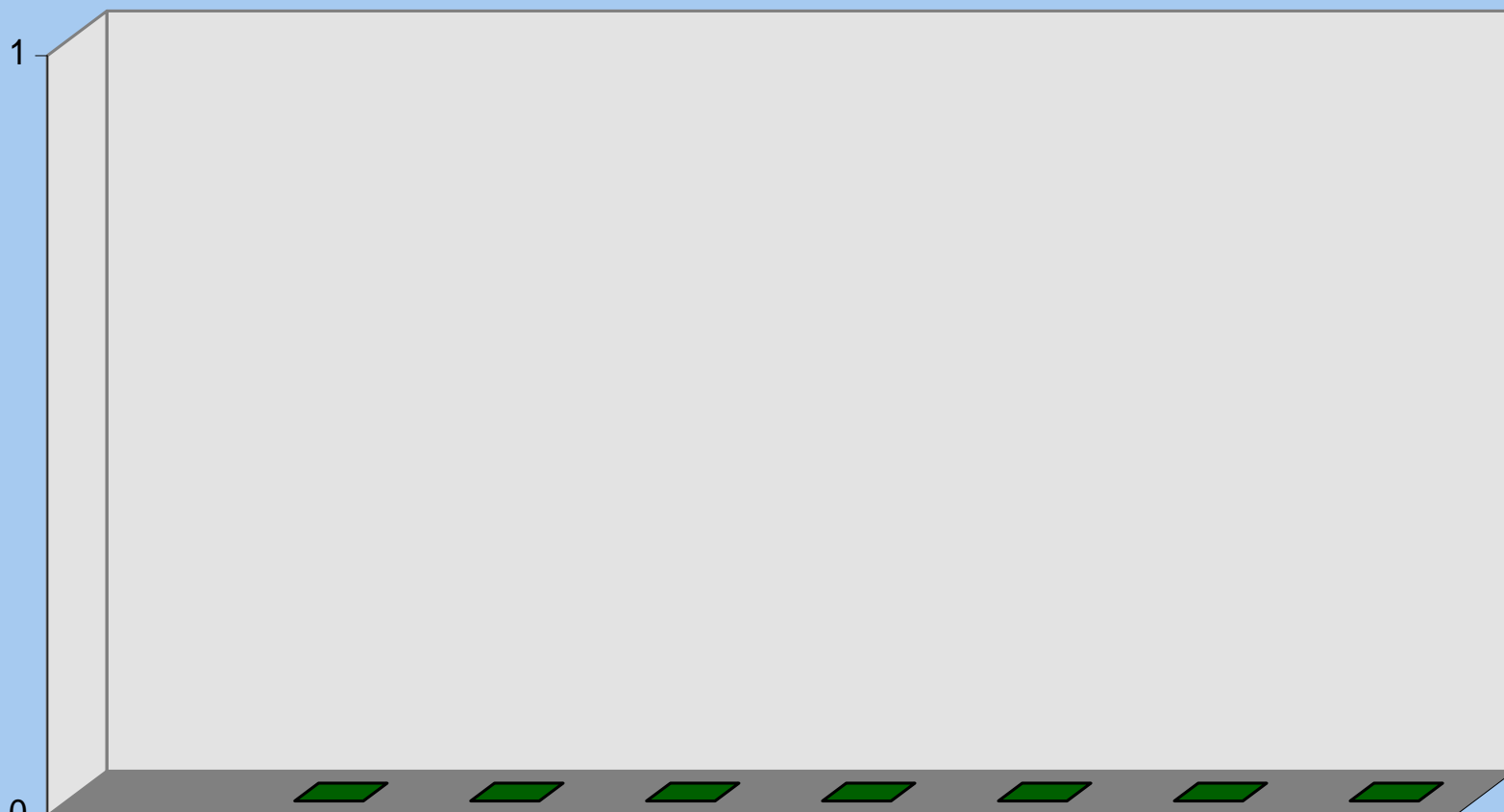


■ Blood Slides Positive
■ Blood Slides Examined

PARAGUAY: Slide Positivity Rate (SPR), 2000-2007



PARAGUAY: Malaria Mortality, 2000-2007

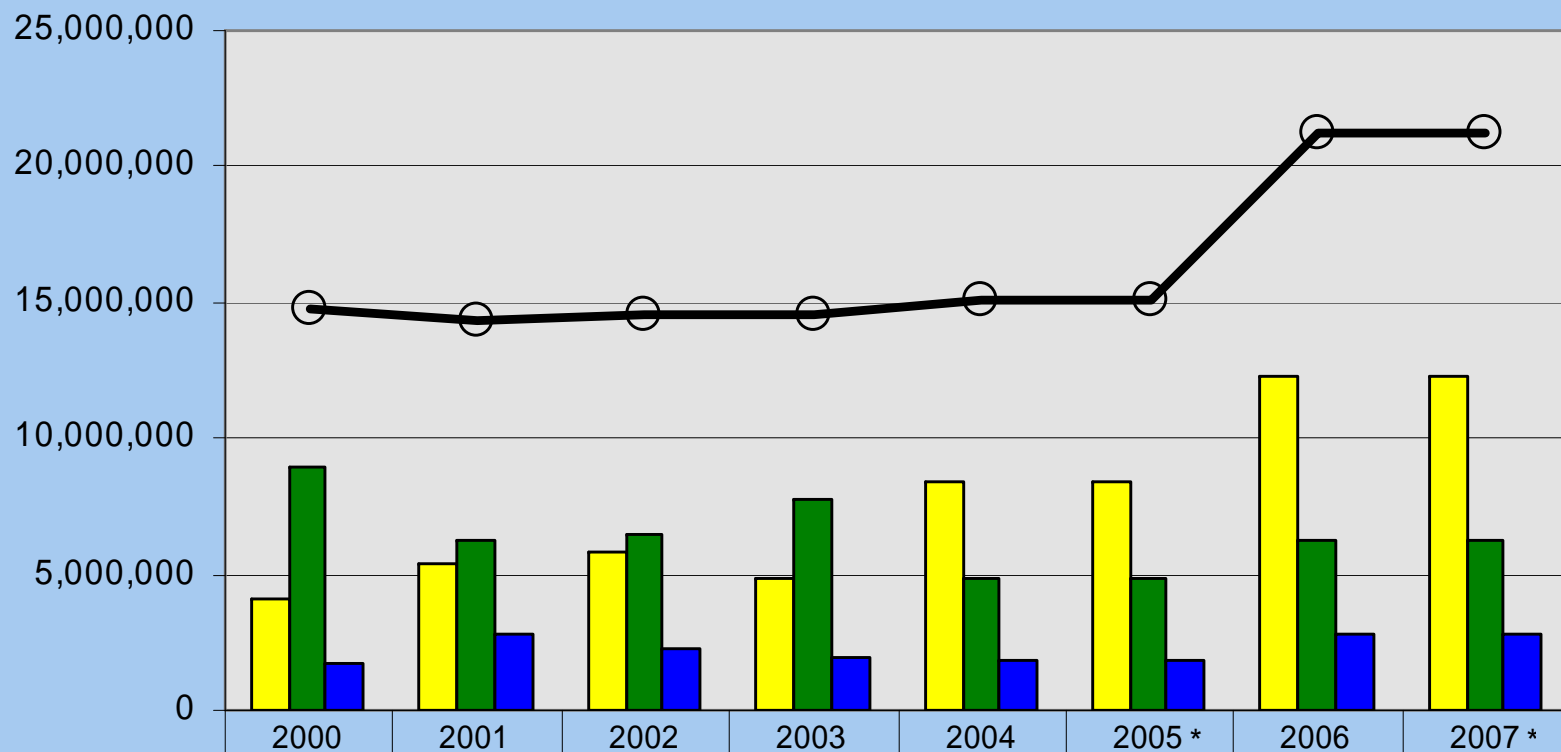




No. of Deaths	...	0	0	0	0	0	0	0
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* Data taken from previous year

PERU

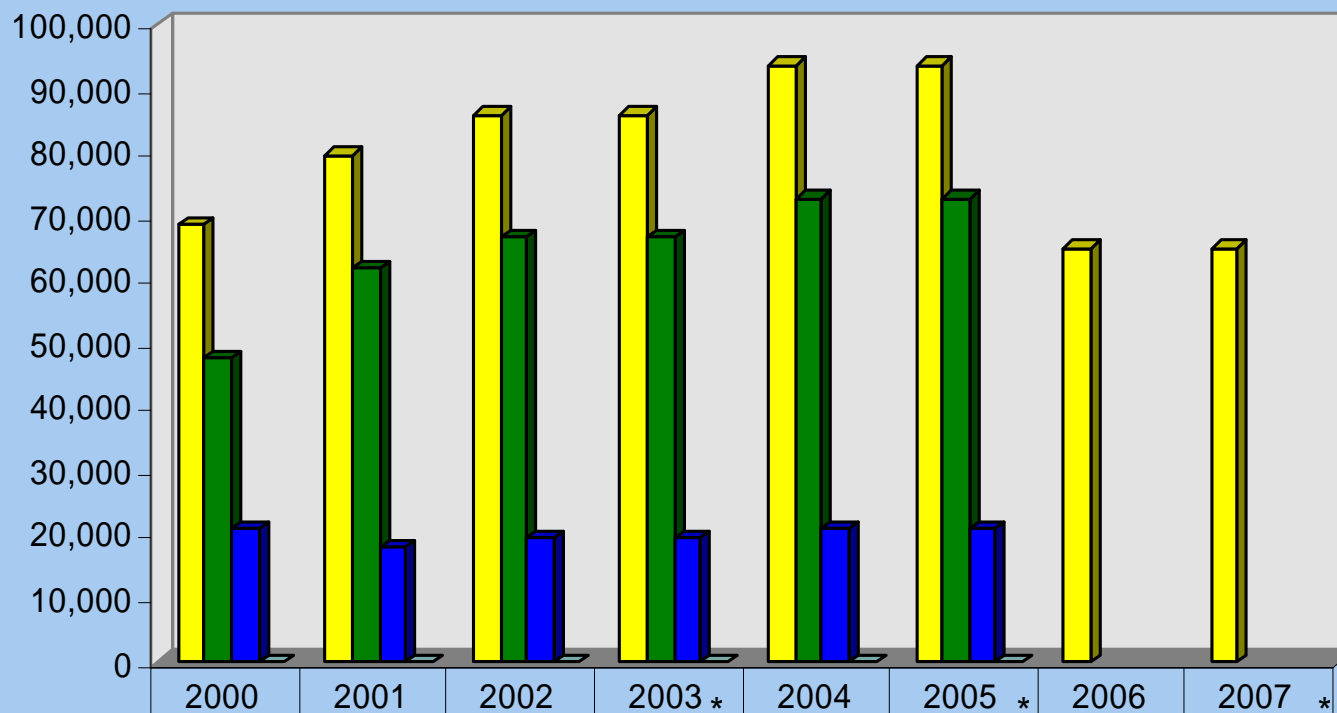
PERU: Population at Ecological Risk of Malaria Transmission, 2000-2007



 Low Risk Population	4,052,000	5,341,000	5,832,000	4,892,000	8,416,000	8,416,000	12,267,763	12,267,763
 Medium Risk Population	8,921,000	6,207,000	6,439,000	7,729,000	4,885,000	4,885,000	6,207,091	6,207,091
 High Risk Population	1,751,000	2,749,000	2,240,000	1,973,000	1,814,000	1,814,000	2,749,181	2,749,181
 Total Population at Risk	14,724,000	14,297,000	14,511,000	14,594,000	15,115,000	15,115,000	21,224,035	21,224,035

* Data taken from previous year

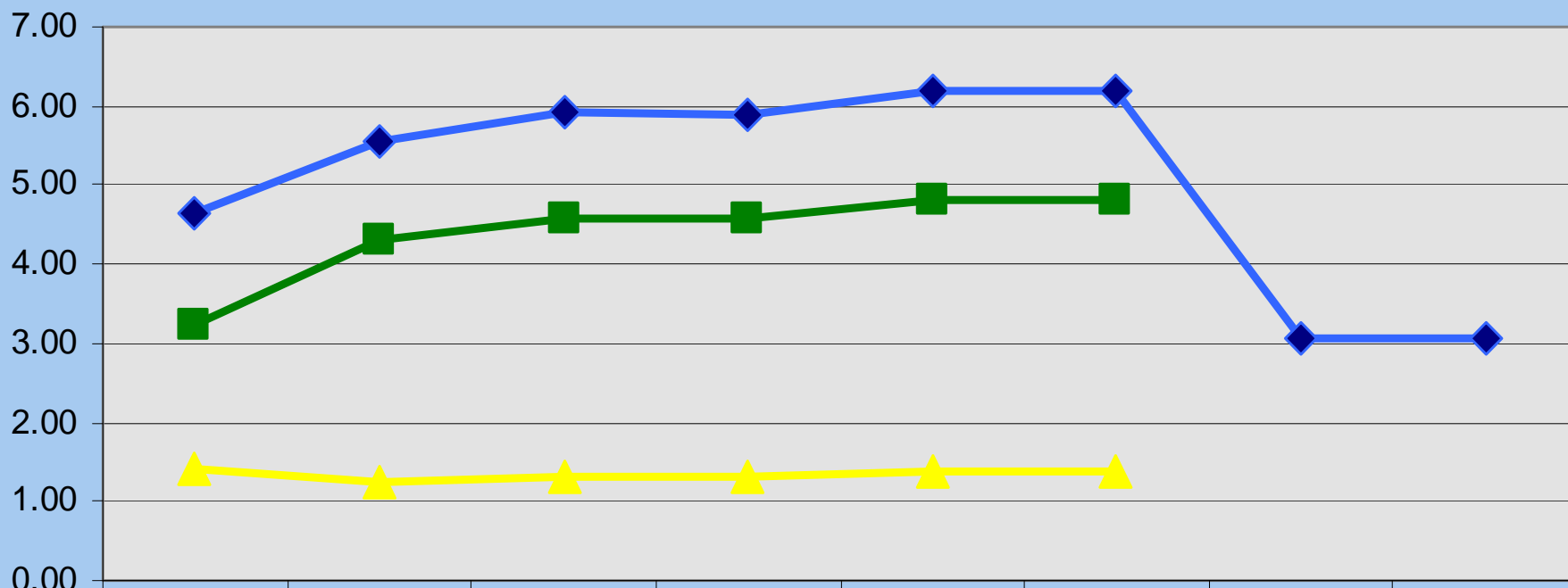
PERU: Malaria Morbidity, 2000-2007



	2000	2001	2002	2003 *	2004	2005 *	2006	2007 *
■ No. of Cases	68,321	79,473	85,742	85,742	93,581	93,581	64,871	64,871
■ P. vivax	47,690	61,680	66,588	66,588	72,676	72,676	...	...
■ P. falciparum & mixed	20,618	17,687	19,154	19,154	20,905	20,905	...	...
□ P. malariae	13	11	10	13	10	0	...	...

* Data taken from previous year

PERU: Annual Parasitic Index (API), Annual Index of *P. vivax* (AVI), Annual Index of *P. falciparum* (AFI), 2000-2007



	2000	2001	2002	2003	2004	2005	2006	2007
◆ API	4.64	5.56	5.91	5.88	6.19	6.19	3.06	3.06
■ AVI	3.24	4.31	4.59	4.56	4.81	4.81	...	...
▲ AFI	1.40	1.24	1.32	1.31	1.38	1.38	...	...

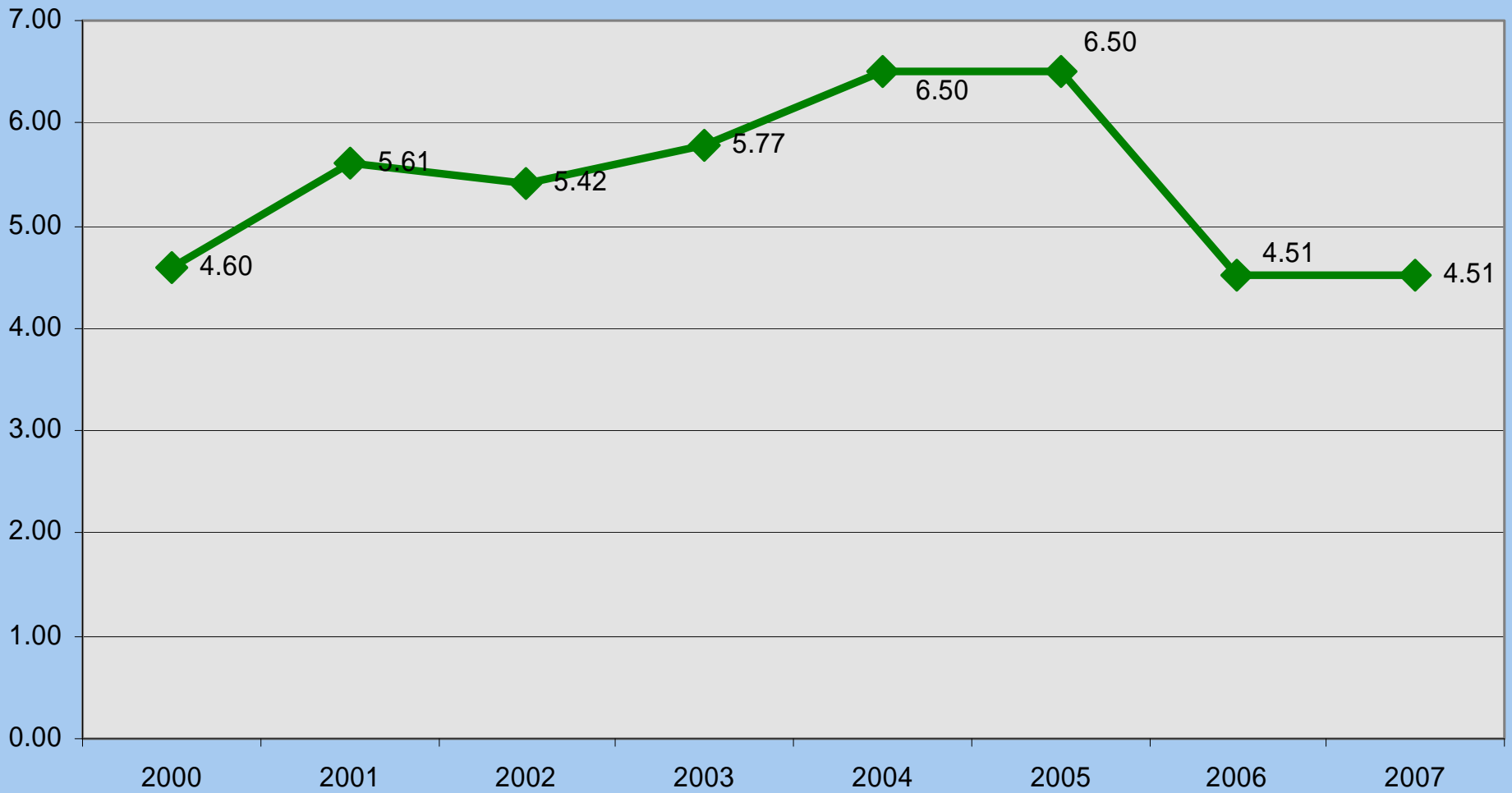
PERU: Malaria Microscopy, 2000-2007



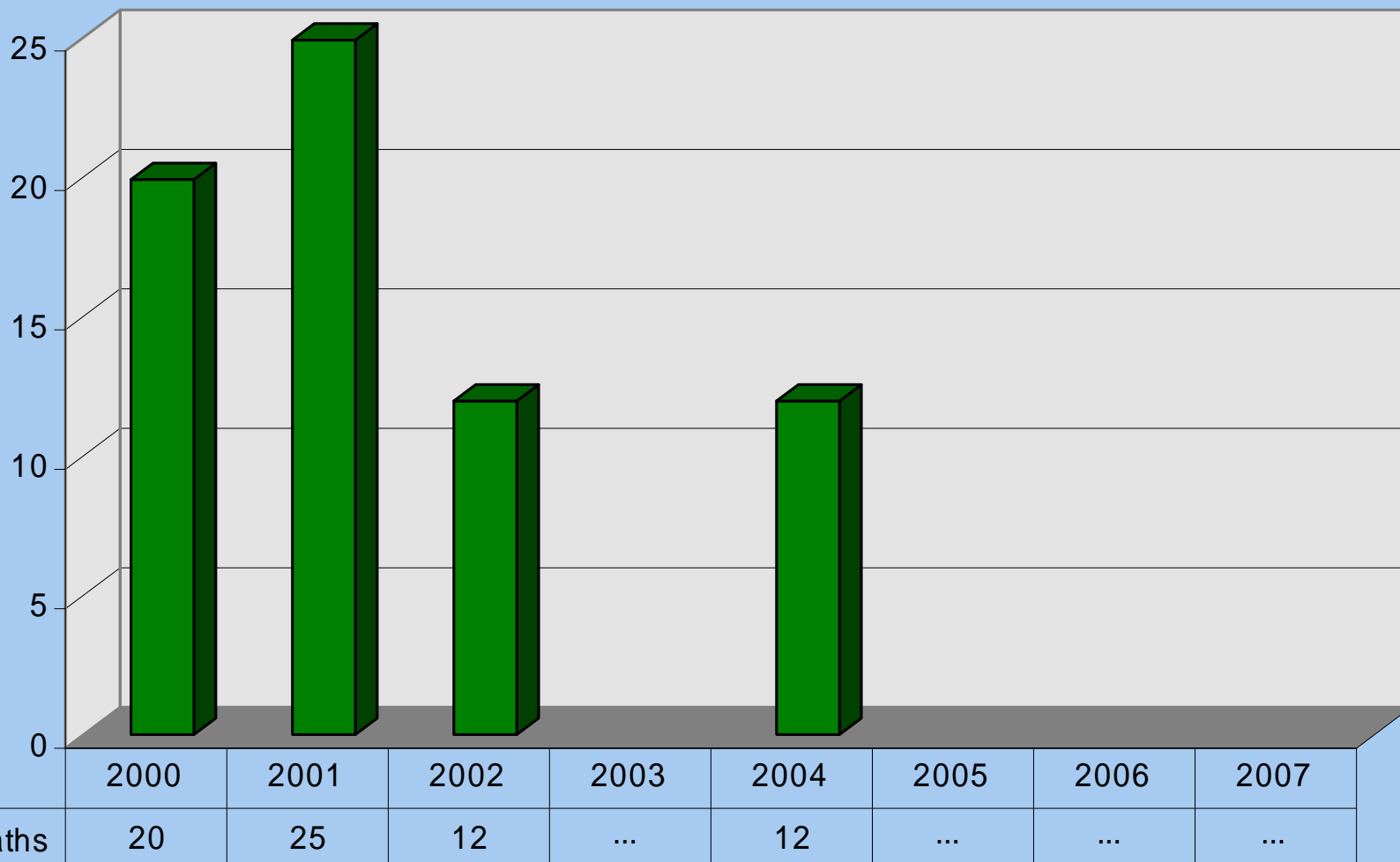
■ Blood Slides Positive
■ Blood Slides Examined

* Data taken from previous year

PERU: Slide Positivity Rate (SPR), 2000-2007

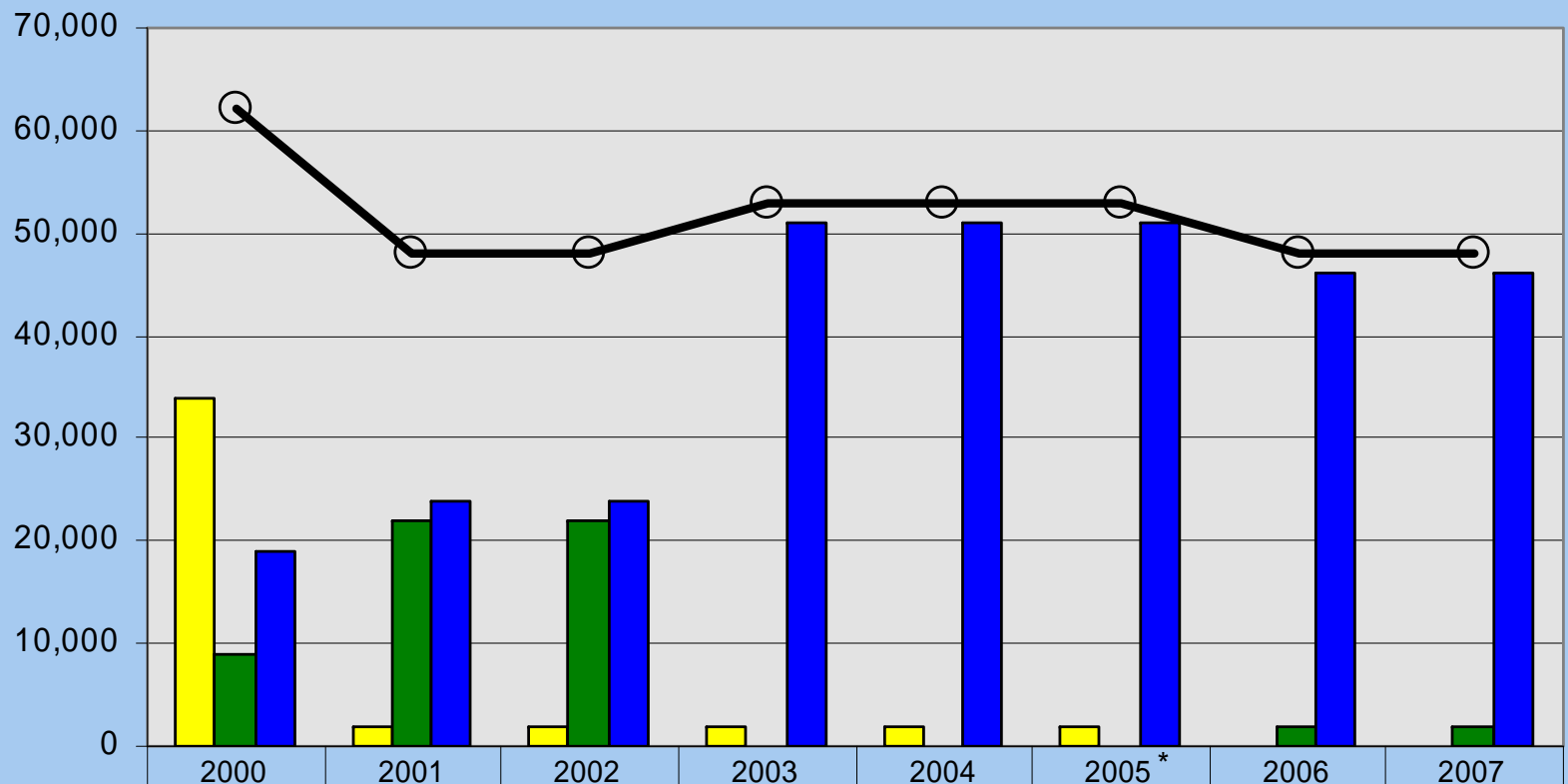






PERU: Malaria Mortality, 2000-2007



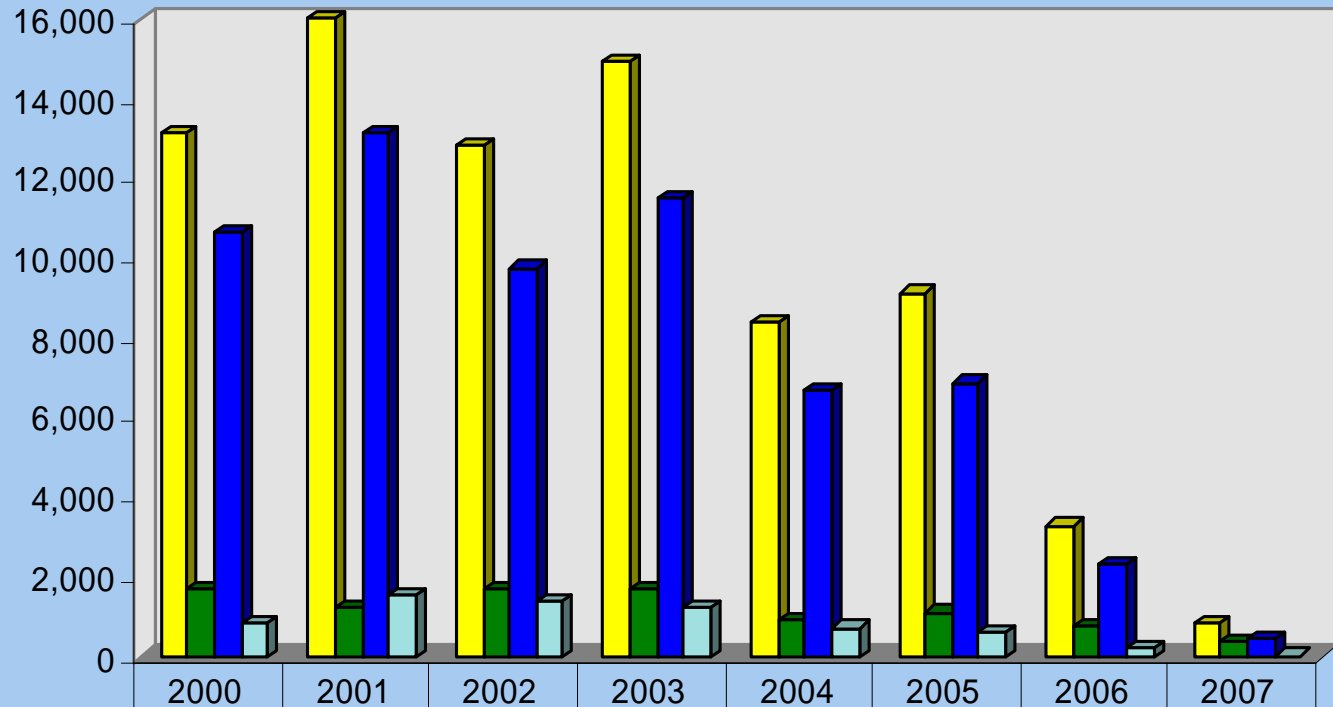
SURINAME

SURINAME: Population at Ecological Risk of Malaria Transmission, 2000-2007



 Low Risk Population	34,000	2,000	2,000	2,000	2,000	2,000	0	0
 Medium Risk Population	9,000	22,000	22,000	0	0	0	2,000	2,000
 High Risk Population	19,000	24,000	24,000	51,000	51,000	51,000	46,000	46,000
 Total Population at Risk	62,000	48,000	48,000	53,000	53,000	53,000	48,000	48,000

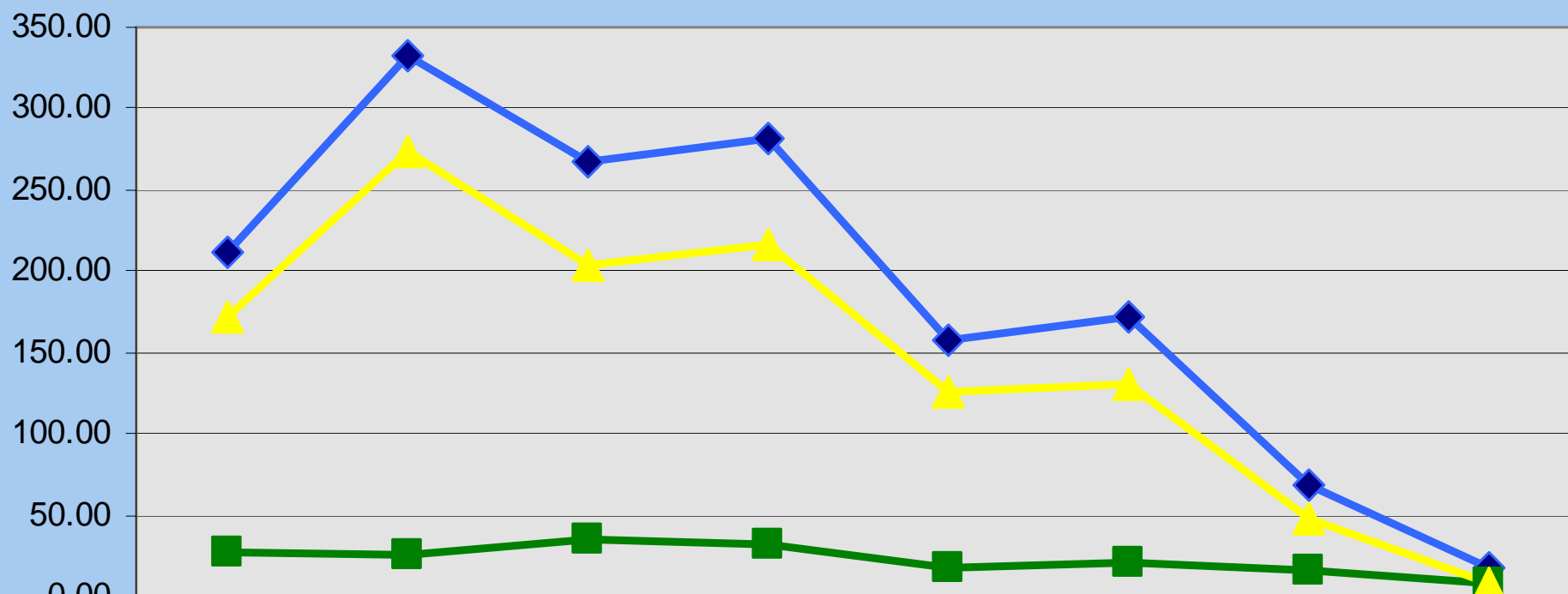
SURINAME: Malaria Morbidity, 2000-2007



	2000	2001	2002	2003	2004	2005	2006	2007
■ No. of Cases	13,132	15,997	12,837	14,906	8,379	9,131	3,289	807
■ <i>P. vivax</i>	1,673	1,229	1,666	1,709	915	1,111	733	378
■ <i>P. falciparum</i> & mixed	10,648	13,144	9,752	11,477	6,693	6,877	2,298	415
■ <i>P. malariae</i>	811	1,549	1,388	1,217	726	589	225	14 *

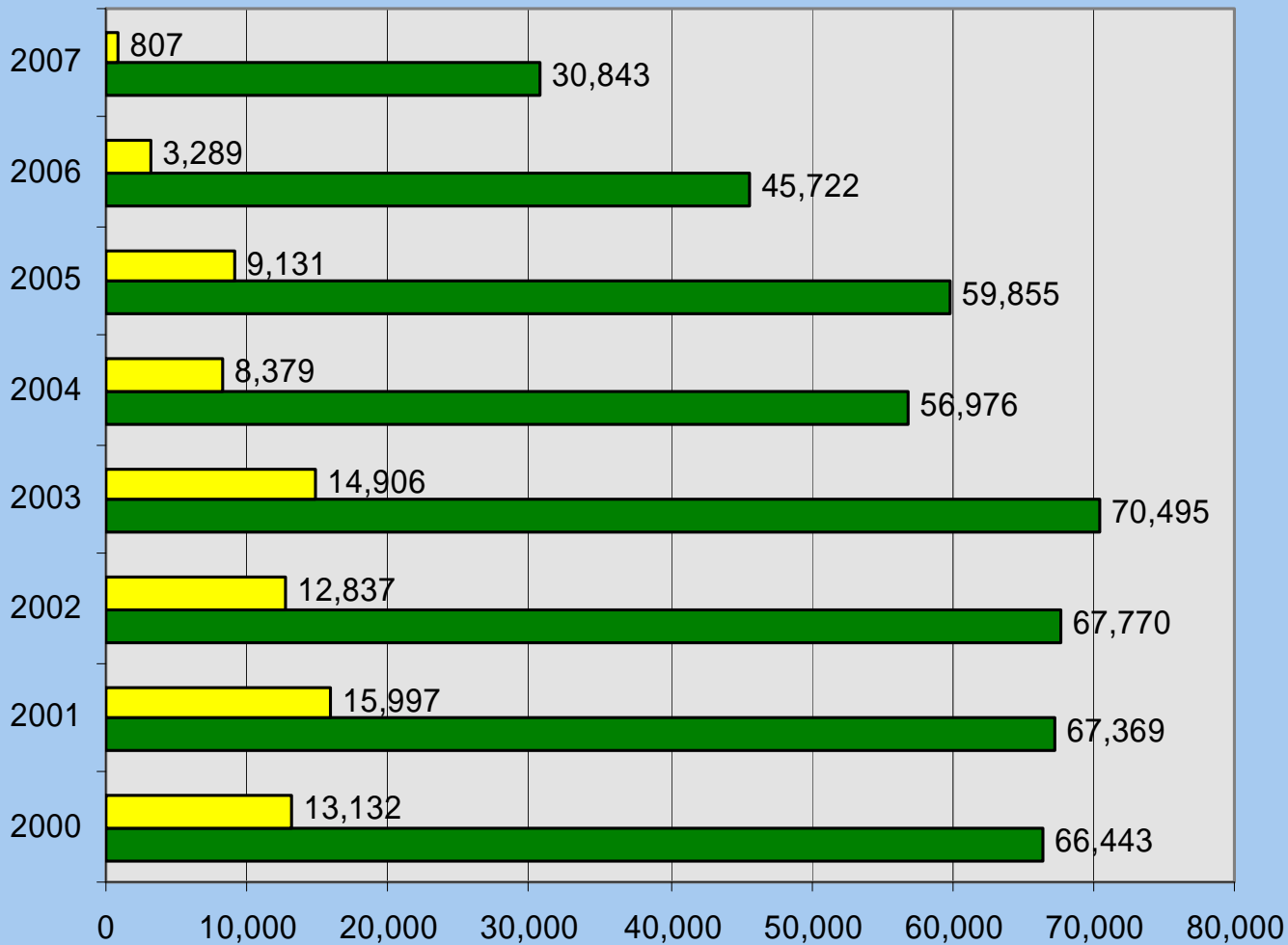
* Estimate based on difference between total cases and *P. vivax* / *P. falciparum* cases

SURINAME: Annual Parasitic Index (API), Annual Index of *P. vivax* (AVI) and Annual Index of *P. falciparum* (AFI), 2000-2007



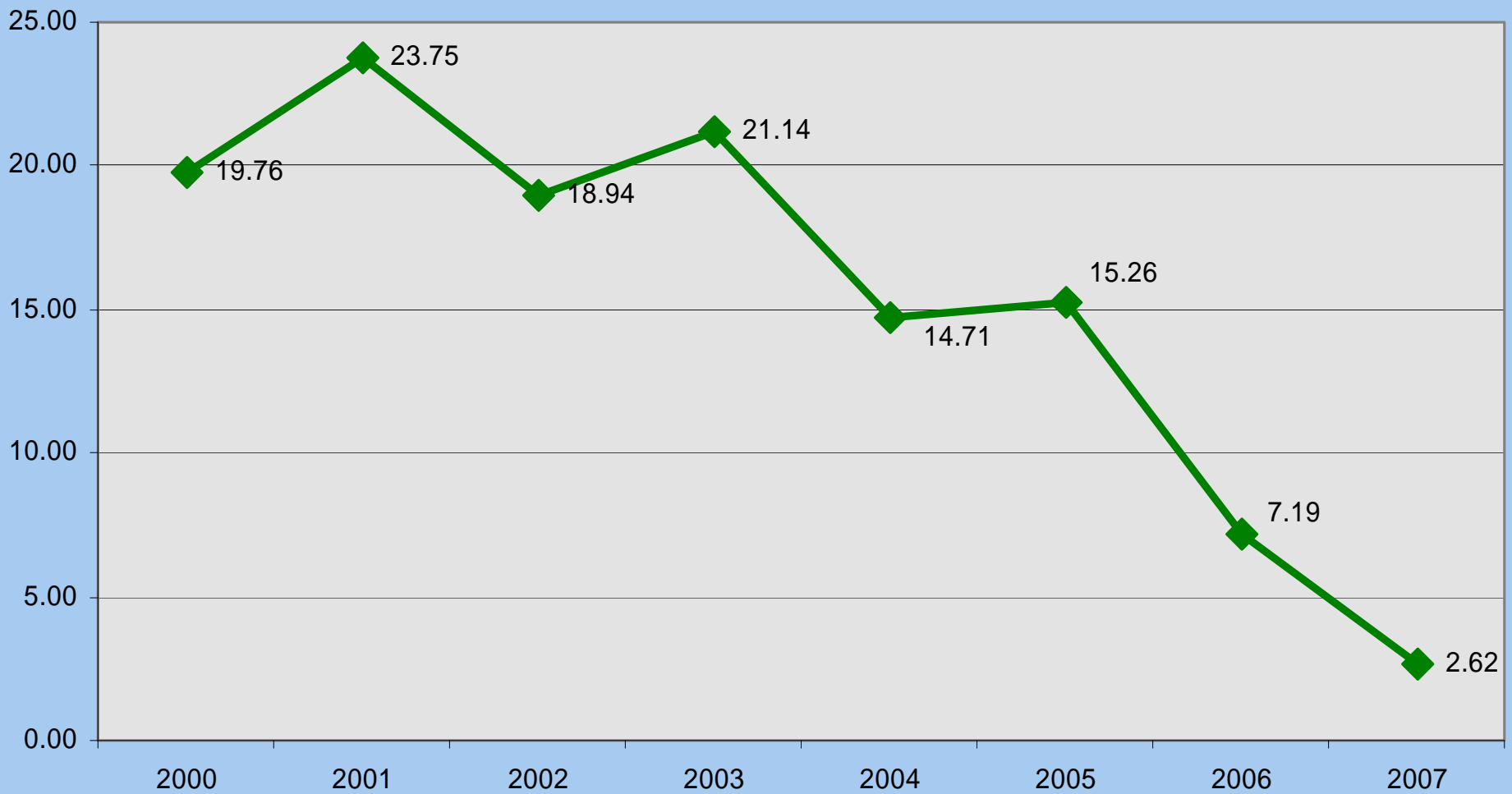
	2000	2001	2002	2003	2004	2005	2006	2007
◆ API	211.81	333.27	267.44	281.25	158.09	172.28	68.52	16.81
■ AVI	26.98	25.60	34.71	32.25	17.26	20.96	15.27	7.88
▲ AFI	171.74	273.83	203.17	216.55	126.28	129.75	47.88	8.65

SURINAME: Malaria Microscopy, 2000-2007

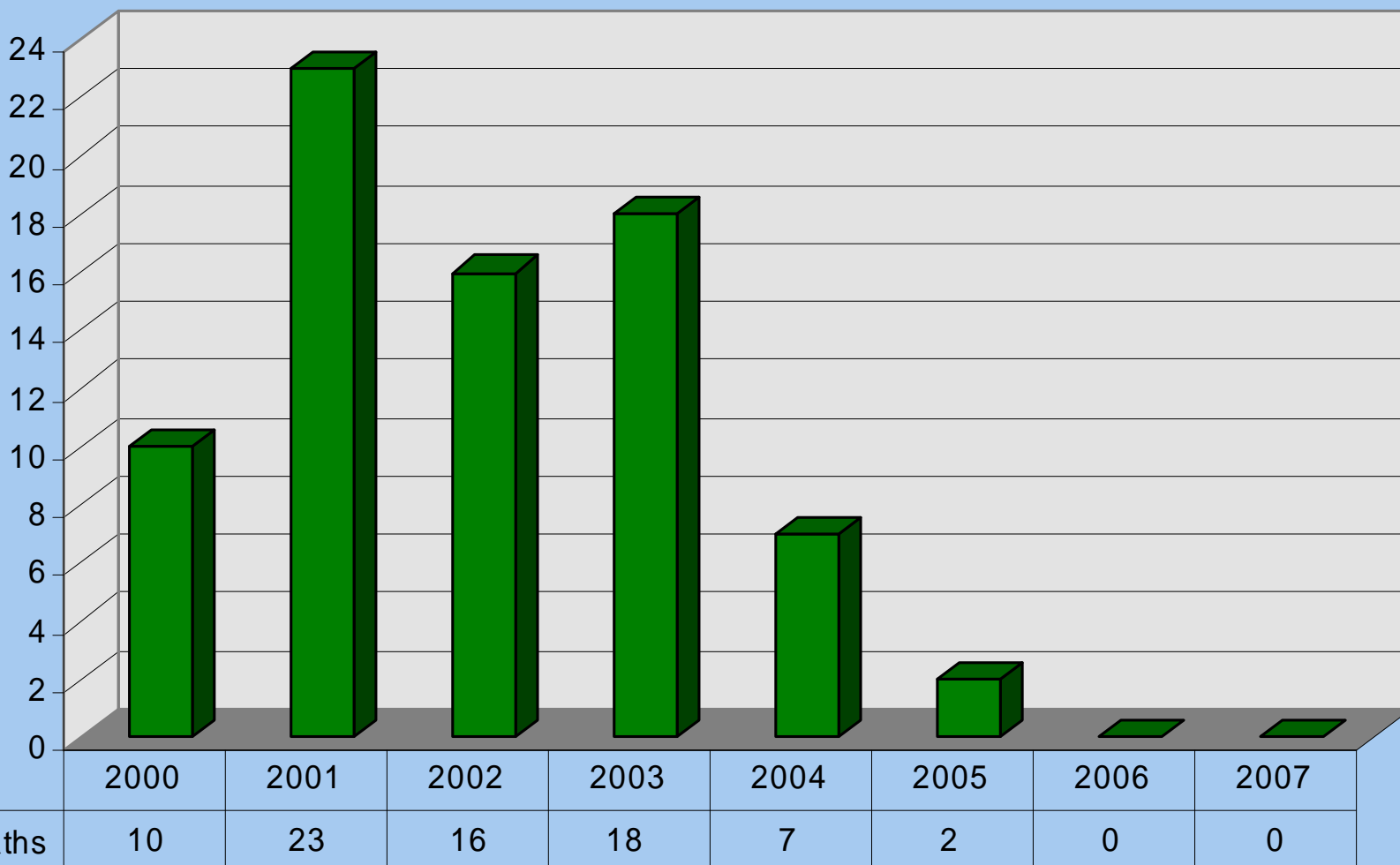


■ Blood Slides Positive
■ Blood Slides Examined

SURINAME: Slide Positivity Rate (SPR), 2000-2007

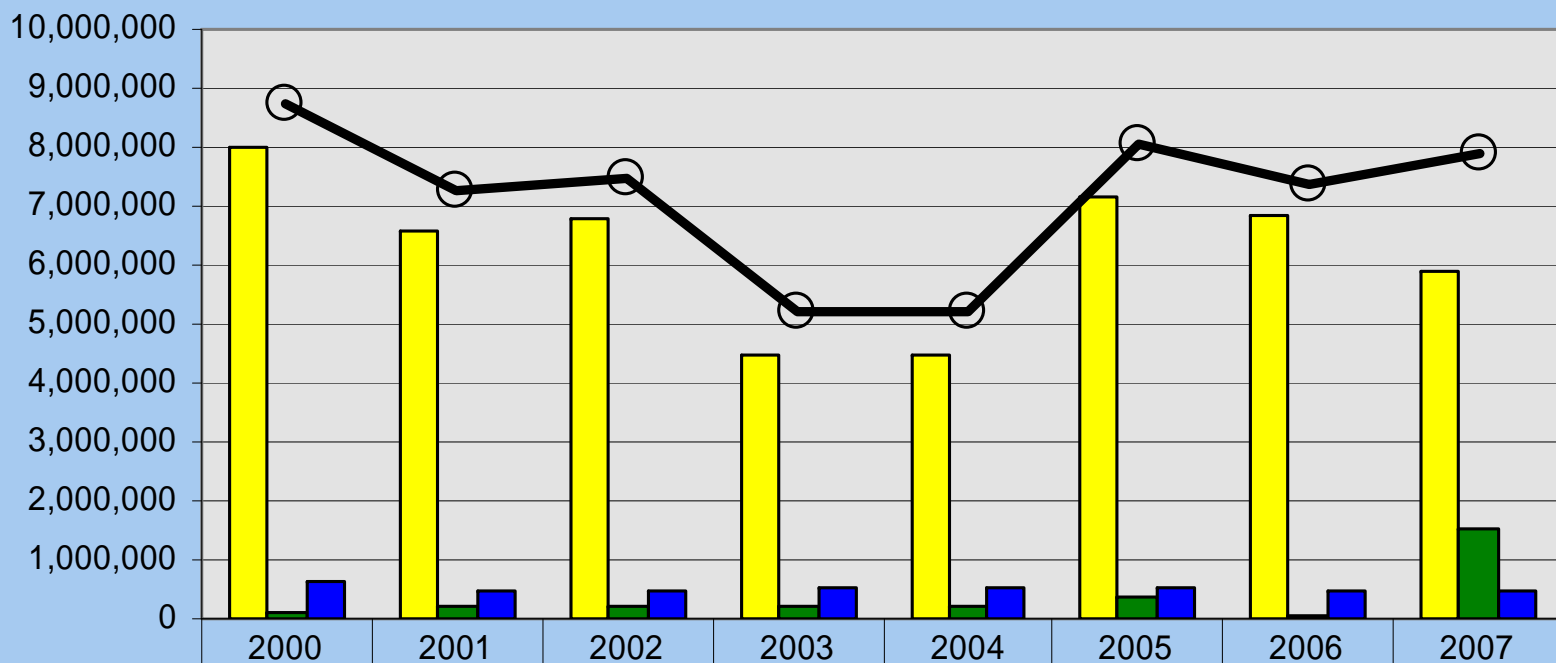



SURINAME: Malaria Mortality, 2000-2007



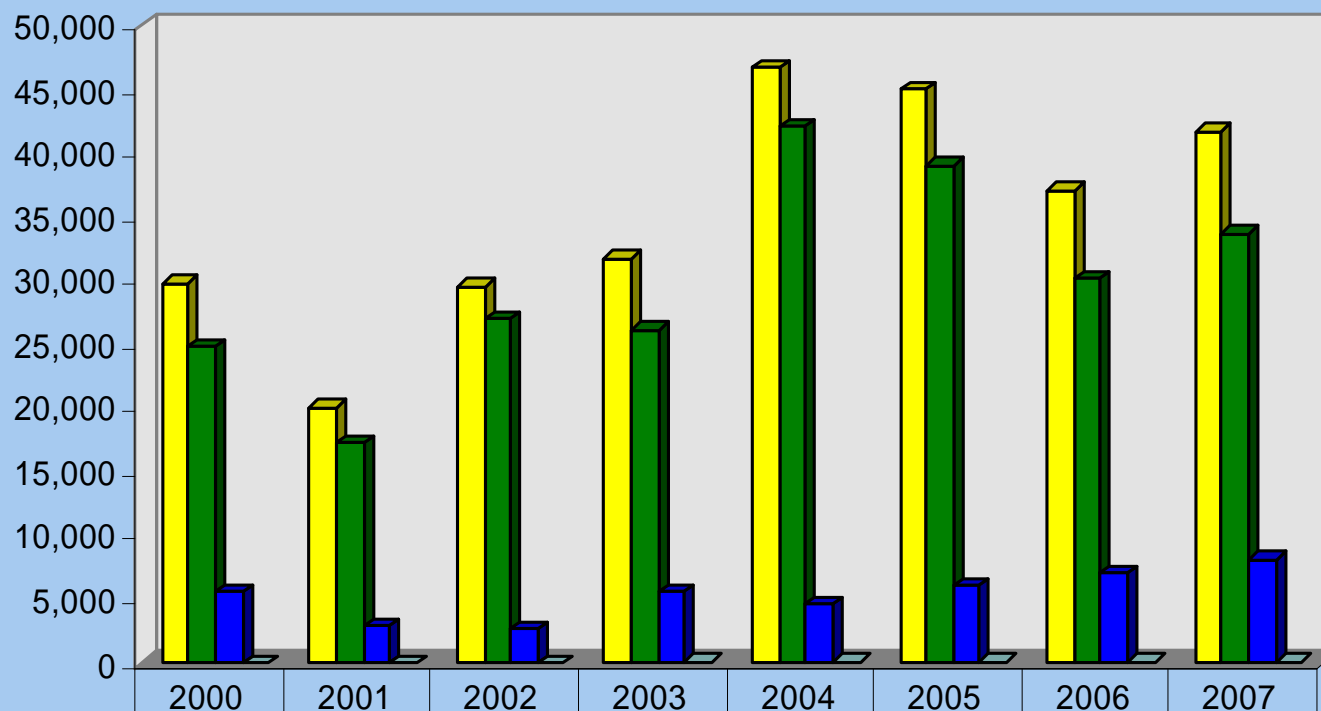
VENEZUELA

VENEZUELA: Population at Ecological Risk of Malaria Transmission, 2000-2007



	2000	2001	2002	2003	2004	2005	2006	2007
 Low Risk Population	8,017,000	6,563,000	6,783,000	4,482,000	4,482,000	7,176,000	6,858,000	5,904,057
 Medium Risk Population	80,000	232,000	236,000	198,000	198,000	352,000	45,000	1,519,646
 High Risk Population	650,000	451,000	460,000	512,000	512,000	513,000	480,000	469,206
 Total Population at Risk	8,747,000	7,246,000	7,479,000	5,192,000	5,192,000	8,041,000	7,383,000	7,892,909

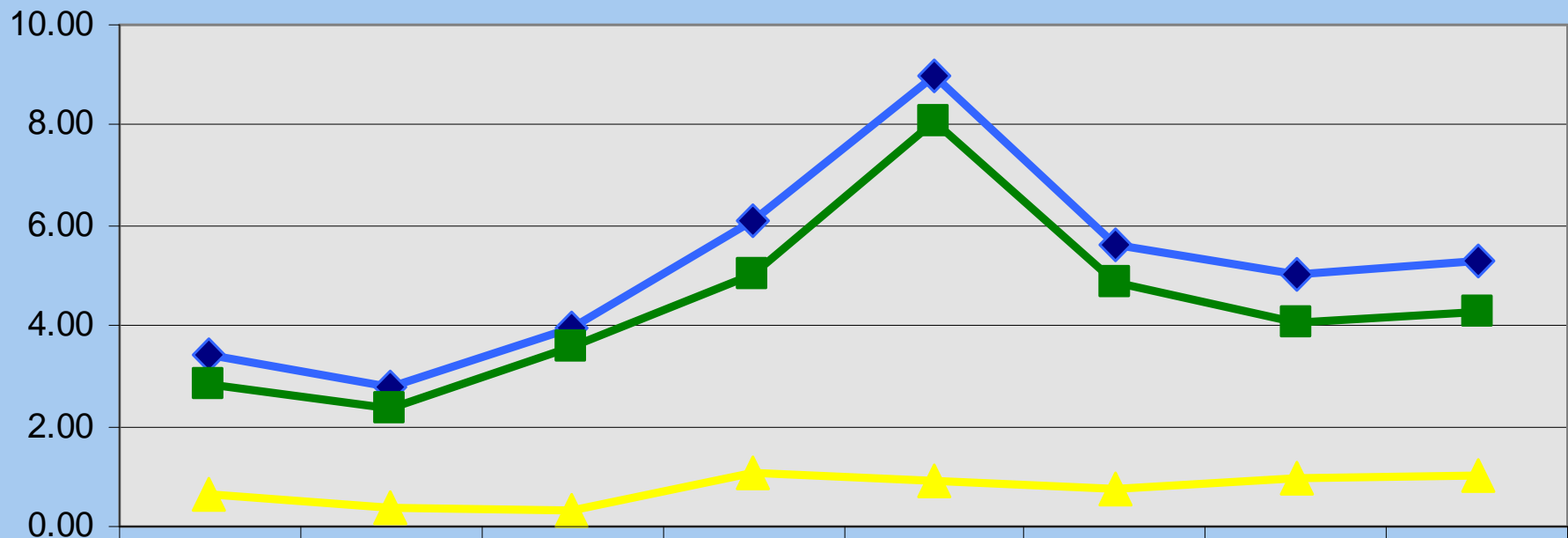
VENEZUELA: Malaria Morbidity, 2000-2007



■ No. of Cases	29,736	20,006	29,491	31,719	46,655	45,049	37,062	41,681
■ P. vivax	24,829	17,224	26,907	26,111	41,972	38,985	30,111	33,621
■ P. falciparum & mixed	5,491	2,774	2,572	5,562	4,620	6,026	6,928	8,077
□ p. malariae	1	8	12	46	63	38	23	23 *

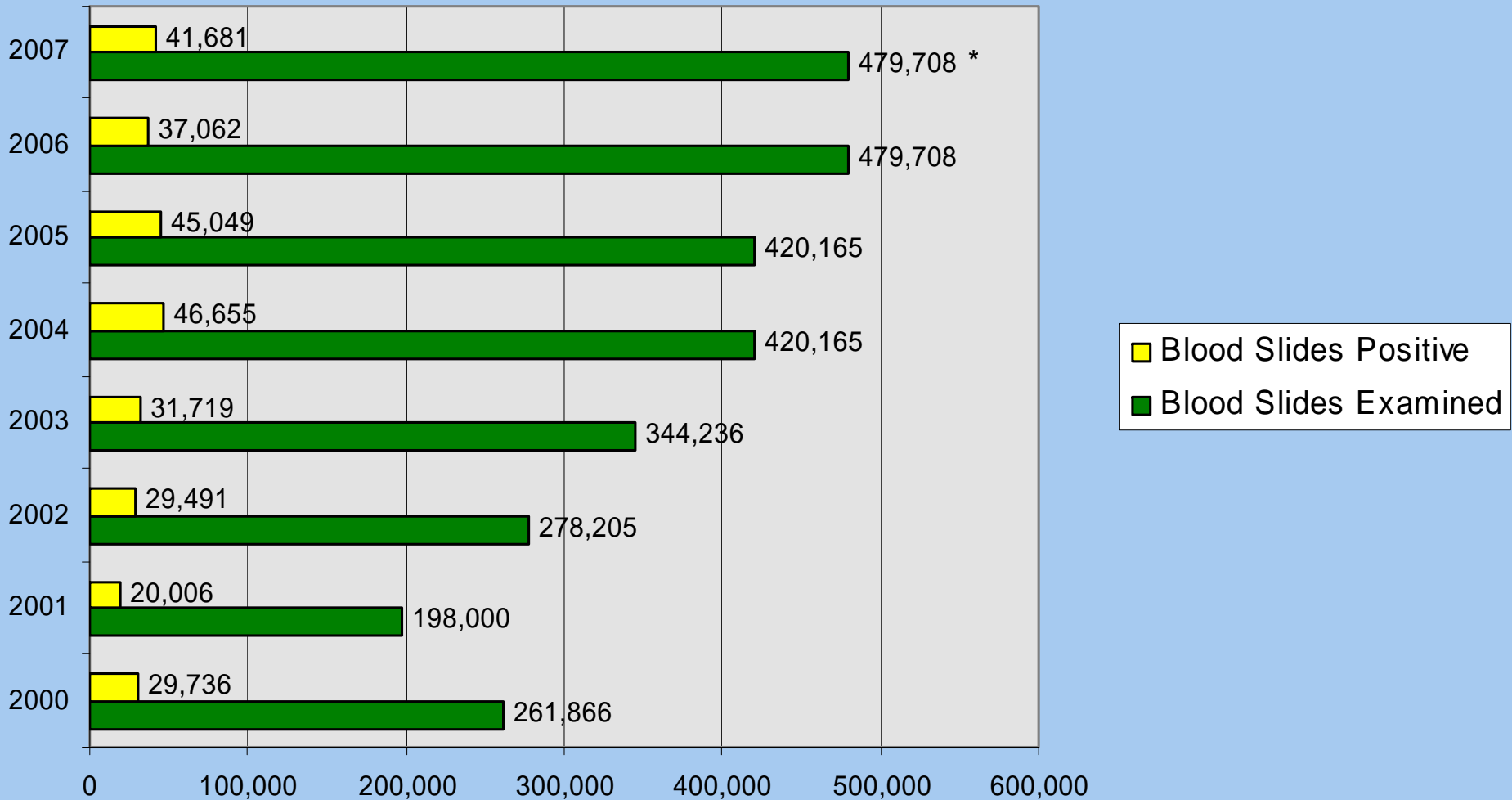
* Data taken from previous year

VENEZUELA: Annual Parasitic Index (API), Annual Index of *P. vivax* (AVI) and Annual Index of *P. falciparum* (AFI), 2000-2007



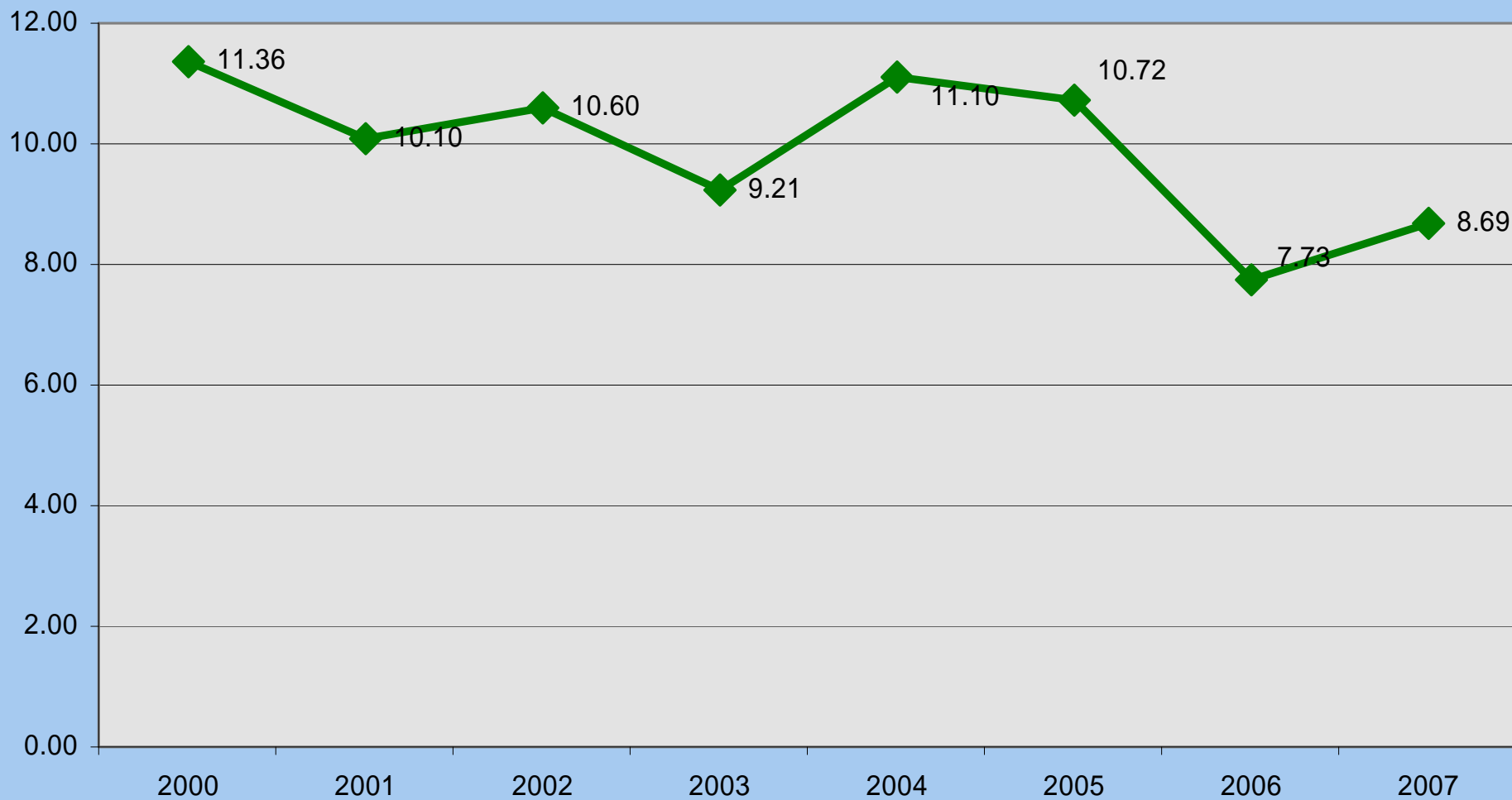
	2000	2001	2002	2003	2004	2005	2006	2007
◆ API	3.40	2.76	3.94	6.11	8.99	5.60	5.02	5.28
■ AVI	2.84	2.38	3.60	5.03	8.08	4.85	4.08	4.26
▲ AFI	0.63	0.38	0.34	1.07	0.89	0.75	0.94	1.02

VENEZUELA: Malaria Microscopy, 2000-2007



* Data taken from previous year

VENEZUELA: Slide Positivity Rate (SPR), 2000-2007



VENEZUELA: Malaria Mortality, 2000-2007

