

表5. 2007年の全国自動車教習所調査の都道府県別のHIV/STD関連知識正解率

都道府県名	人数		Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20	都道府県 合計
	中国で最 近HIV流行	台湾で最 近HIV流行	日本で最 近HIV流行	日本で最 近HIV流行	日本で最 近HIV流行	日本で最 近HIV流行	日本で最 近HIV流行	日本で最 近HIV流行	日本で最 近HIV流行	日本で最 近HIV流行	HIV治療の 進歩	HIV検査の 適切な時 期	保健所の 無料匿名 検査	地域外の 保健所等 でも検査可 能	陽性でも酒 人情報 告されない	食糧から感 染しない	HIV感染 の潜伏期 は10年近 い	HIVの感染 し易さに男 女差	クラミジア は自然に消 えないこと 多い	STDは口か ら性器に感 染する	STDによっ て不妊にな ることがあ る	STDによっ て子宮内に ある	
北海道	48.6	25.4	81.0	80.5	77.2	29.7	49.9	59.6	31.0	74.3	50.5	38.8	71.6	49.9	22.2	17.3	45.5	43.7	57.0	36.2	49.5	-	49.5
青森県	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
岩手県	44.7	25.5	79.3	72.9	67.0	31.9	43.1	57.4	33.0	64.9	42.0	34.6	64.4	54.3	25.5	19.1	43.6	48.4	55.9	35.6	47.2	-	47.2
宮城県	44.7	24.4	83.2	85.8	80.2	34.0	49.7	56.9	29.9	71.6	56.9	44.7	71.6	53.3	27.9	20.3	36.0	53.3	65.0	36.0	36.0	36.0	51.3
秋田県	43.3	18.5	65.2	74.7	74.7	12.9	38.8	46.1	32.6	74.2	48.9	38.2	66.9	47.2	24.2	14.0	34.3	34.8	44.4	29.8	44.4	29.8	43.2
山形県	49.6	28.8	78.9	72.0	71.2	31.3	39.7	49.9	25.1	71.5	40.2	32.3	73.9	47.6	24.3	11.9	39.7	49.6	55.1	38.0	55.1	38.0	46.5
福島県	44.8	31.1	78.4	75.6	71.4	34.5	41.7	52.7	31.4	72.3	41.7	34.5	72.3	48.2	35.0	16.0	41.2	49.9	63.3	37.0	63.3	37.0	48.6
茨城県	46.0	32.7	73.9	74.6	69.1	34.4	44.0	55.8	26.6	67.6	46.7	36.2	64.3	49.5	24.4	19.6	33.2	49.0	58.0	36.2	58.0	36.2	47.1
栃木県	58.8	37.7	79.0	83.5	79.8	39.4	53.1	64.2	29.2	71.5	53.5	42.5	71.2	52.7	27.3	23.8	52.9	52.9	67.5	46.5	67.5	46.5	54.3
群馬県	55.0	34.4	83.9	85.4	80.8	32.7	48.7	64.8	25.9	76.3	56.1	42.8	75.2	58.0	27.6	24.8	43.7	49.3	68.2	37.5	68.2	37.5	53.3
埼玉県	48.2	24.8	74.4	77.7	75.5	29.5	43.3	57.7	31.7	75.3	48.3	39.1	71.9	47.6	22.2	16.3	48.5	43.4	61.1	36.3	61.1	36.3	48.6
千葉県	44.5	27.5	76.1	77.5	76.3	28.1	43.3	53.1	36.1	73.6	43.7	36.8	75.6	44.9	23.2	19.6	40.3	42.7	59.0	28.5	59.0	28.5	47.5
東京都	49.4	15.6	73.1	78.1	74.9	30.1	49.7	53.6	40.2	77.0	44.1	36.3	74.9	45.1	20.5	13.5	44.6	35.4	57.2	31.9	57.2	31.9	47.2
神奈川県	44.1	23.1	75.1	77.1	74.3	24.7	41.2	57.8	30.7	71.6	46.0	37.0	70.7	46.3	22.2	15.5	40.1	43.4	57.1	33.5	57.1	33.5	46.6
新潟県	50.3	33.8	85.0	85.0	82.9	38.8	52.4	62.1	35.6	77.6	55.0	40.9	72.6	52.1	27.6	21.2	40.0	51.2	62.1	38.2	62.1	38.2	53.2
富山県	45.8	30.2	77.6	72.9	70.3	31.3	41.1	58.3	34.4	74.5	52.1	35.9	68.2	49.5	20.8	15.1	36.5	42.7	54.7	35.9	54.7	35.9	47.4
石川県	51.8	28.9	70.5	74.7	75.3	24.7	40.4	52.4	30.1	68.7	46.4	40.4	68.7	41.6	21.1	21.1	36.7	39.8	53.0	31.9	53.0	31.9	45.9
福井県	61.4	45.0	84.3	83.6	80.0	33.6	48.6	64.3	37.9	77.9	57.9	47.1	75.0	54.3	25.0	24.3	38.6	48.6	62.9	39.3	62.9	39.3	54.5
山梨県	48.0	28.8	64.4	69.9	75.5	36.2	41.7	58.9	30.1	76.1	55.8	35.6	63.2	48.5	23.9	16.6	36.2	38.0	50.9	35.6	50.9	35.6	46.6
長野県	48.6	27.0	77.3	82.7	75.7	36.8	44.9	57.3	35.7	73.5	48.1	33.5	74.6	51.4	22.2	16.2	37.3	44.9	59.5	34.1	59.5	34.1	49.1
岐阜県	53.6	33.3	77.4	76.2	79.8	39.9	45.8	63.1	34.5	72.0	47.6	42.3	72.6	47.0	26.8	22.0	41.1	50.6	61.3	41.7	61.3	41.7	51.4
静岡県	44.3	26.8	81.0	74.3	66.5	26.2	38.5	53.4	30.0	62.1	32.7	35.0	72.9	49.9	33.8	14.9	45.5	48.1	59.8	36.2	59.8	36.2	46.6
愛知県	50.9	28.6	81.3	85.0	79.6	28.1	47.3	59.3	34.0	67.7	50.3	40.8	73.5	46.2	22.1	21.6	43.5	46.6	62.6	35.8	62.6	35.8	50.2
三重県	36.8	25.9	65.3	70.5	70.5	22.3	40.4	53.4	24.9	61.7	44.0	36.8	69.4	40.9	17.1	12.4	30.6	37.3	49.7	34.2	49.7	34.2	42.2
滋賀県	55.2	38.8	85.0	80.2	74.5	33.7	46.2	56.1	30.3	71.7	47.0	43.9	75.1	54.7	20.7	17.8	42.2	52.4	58.1	39.4	58.1	39.4	51.1
京都府	47.7	27.0	78.2	75.2	69.4	23.7	33.6	60.3	26.4	74.9	44.4	38.6	76.9	54.5	17.9	16.0	38.6	43.5	54.8	32.0	54.8	32.0	46.7
大阪府	45.3	16.7	71.4	77.8	77.5	15.8	38.4	50.7	35.5	72.3	43.8	32.7	69.5	47.7	19.5	12.6	36.8	33.0	48.1	28.5	48.1	28.5	43.7
兵庫県	49.4	32.1	82.6	79.8	76.9	28.8	42.3	61.8	31.6	70.2	46.9	44.2	75.5	53.8	29.0	18.7	43.3	50.1	63.4	38.2	63.4	38.2	50.9
奈良県	51.9	39.3	89.1	82.5	72.7	39.9	43.7	60.7	26.8	65.6	36.1	43.2	81.4	53.6	23.0	14.8	36.6	55.2	61.7	34.4	61.7	34.4	50.6
和歌山県	47.3	23.4	75.4	78.4	74.3	18.6	41.3	62.3	24.6	71.9	48.5	35.3	68.3	55.1	22.2	10.8	37.7	44.9	52.7	32.3	52.7	32.3	46.3
鳥取県	39.1	25.6	79.5	86.5	87.2	26.3	64.7	70.5	24.4	85.9	45.5	25.3	76.9	37.2	20.5	10.3	44.2	54.5	71.8	52.6	71.8	52.6	51.5
島根県	40.5	20.9	74.8	75.5	74.2	20.9	30.1	59.5	32.5	77.3	50.3	46.6	79.8	55.2	25.2	16.0	41.1	37.4	53.4	34.4	53.4	34.4	47.3
岡山県	49.3	29.1	79.5	76.9	73.8	28.2	42.5	57.3	33.0	75.2	46.4	40.7	73.2	50.7	25.6	20.8	43.6	47.0	57.3	34.8	57.3	34.8	49.2
広島県	47.8	29.3	77.4	79.9	75.3	32.6	44.3	57.3	29.6	69.6	47.0	39.9	75.3	48.6	24.5	20.7	40.8	47.3	59.8	33.4	59.8	33.4	49.0
山口県	51.4	33.1	89.4	81.7	73.9	33.8	39.4	71.8	35.9	67.6	46.5	41.5	78.2	57.7	19.0	11.3	39.4	52.8	62.0	29.6	62.0	29.6	50.8
徳島県	48.1	31.1	78.7	78.1	76.5	21.3	38.3	55.7	34.4	66.7	40.4	41.5	75.4	49.2	23.5	16.9	39.3	42.6	56.8	30.1	56.8	30.1	47.2
香川県	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
愛媛県	44.3	21.0	78.4	73.9	72.7	29.0	38.1	59.1	32.4	73.3	46.0	37.5	72.2	49.4	25.6	22.2	39.2	41.5	48.9	28.4	48.9	28.4	46.6
高知県	43.2	14.8	70.4	69.1	69.1	21.6	53.1	52.5	24.7	72.2	45.7	40.1	73.5	50.0	24.7	14.2	42.0	37.0	54.9	34.0	54.9	34.0	45.6
福岡県	47.7	20.7	79.8	83.5	79.7	30.3	45.2	53.5	33.7	75.6	49.1	37.2	72.8	44.4	21.0	15.3	42.0	39.9	56.9	27.7	56.9	27.7	47.9
佐賀県	50.6	32.3	84.1	80.5	75.6	34.8	51.2	59.8	36.6	75.6	50.0	45.1	75.6	54.9	28.7	16.5	31.1	42.1	46.3	32.9	46.3	32.9	50.2
長崎県	49.5	32.1	78.8	74.5	64.7	32.1	39.1	57.1	29.3	64.7	39.7	28.3	63.0	53.8	19.6	19.6	41.8	52.2	51.6	31.5	51.6	31.5	46.1
熊本県	42.4	32.8	78.5	70.8	67.5	33.6	47.1	52.1	27.8	63.6	42.4	37.2	72.7	48.2	20.4	15.4	37.7	45.7	52.6	31.4	52.6	31.4	46.0
大分県	53.9	33.8	77.6	74.8	72.3	29.2	45.6	60.2	26.7	65.0	47.1	35.8	67.3	53.9	24.7	16.9	42.1	45.1	53.4	35.3	53.4	35.3	48.0
宮崎県	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
鹿児島県	43.5	27.7	78.3	76.6	75.0	25.5	41.3	51.1	27.2	71.2	42.9	37.0	75.5	51.6	19.6	10.3	39.1	44.6	51.6	31.0	51.6	31.0	46.0
沖縄県	66.3	56.6	93.9	92.9	90.3	48.0	45.9	69.4	25.5	79.1	61.7	25.0	76.0	68.9	34.2	24.5	68.9	69.9	76.0	61.7	76.0	61.7	61.7
全国平均	48.1	27.8	78.0	78.5	75.5	29.4	44.2	57.2	31.5	72.0	46.9	38.1	72.5	49.4	23.7	17.4	41.7	45.1	58.1	34.8	58.1	34.8	48.5

表6. HIV検査件数(委託を含む)の年次推移、人口比、増加率

都道府県名	15-59歳人口	2002	2003	2004	2005	2006	2007		増加率 (2007年/2002年)
							件数	件数/人口10万	
北海道	3305	1429	1557	1796	2204	2599	3619	109.5	2.53
青森県	816	199	225	232	363	442	588	72.1	2.95
岩手県	757	311	283	329	490	609	725	95.8	2.33
宮城県	1411	663	921	1056	1074	1309	2087	147.9	3.15
秋田県	615	176	204	334	488	466	672	109.3	3.82
山形県	661	201	301	562	457	613	864	130.7	4.30
福島県	1173	347	368	545	1010	1089	1177	100.3	3.39
茨城県	1743	777	1006	1175	1255	1664	2714	155.7	3.49
栃木県	1185	891	1181	1551	1687	1925	2579	217.6	2.89
群馬県	1150	591	654	722	1023	1555	1842	160.2	3.12
埼玉県	4309	1553	1820	2656	3903	3669	5338	123.9	3.44
千葉県	3654	2367	3185	3578	3763	4623	6369	174.3	2.69
東京都	7681	14,484	17634	21067	22220	23450	28965	377.1	2.00
神奈川県	5399	5822	6402	7221	7915	9634	11768	218.0	2.02
新潟県	1351	542	735	893	921	1114	1492	110.4	2.75
山梨県	493	357	486	536	600	719	943	191.3	2.64
長野県	1182	1106	1295	1437	1755	2663	3659	309.6	3.31
富山県	616	263	342	375	474	476	780	126.6	2.97
石川県	675	368	533	796	797	887	1230	182.2	3.34
福井県	452	145	230	227	297	387	581	128.5	4.01
岐阜県	1186	339	373	451	411	537	814	68.6	2.40
静岡県	2150	1387	1705	2071	2423	2896	3821	177.7	2.75
愛知県	4295	4429	5369	6400	6435	7913	11240	261.7	2.54
三重県	1044	464	523	571	612	884	1383	132.5	2.98
滋賀県	816	376	430	582	963	598	797	97.7	2.12
京都府	1539	1172	1494	1777	1933	2266	3373	219.2	2.88
大阪府	5133	8,061	10660	11655	12195	14044	17609	343.1	2.18
兵庫県	3216	2317	2469	2968	3871	4284	5631	175.1	2.43
奈良県	828	314	355	563	539	687	1125	135.9	3.58
和歌山県	563	248	274	258	309	347	521	92.5	2.10
鳥取県	334	170	218	326	406	561	761	227.8	4.48
島根県	389	182	153	183	196	346	471	121.1	2.59
岡山県	1091	566	728	703	789	985	1138	104.3	2.01
広島県	1639	940	1194	1329	1672	2104	3180	194.0	3.38
山口県	805	404	495	700	796	1008	1418	176.1	3.51
徳島県	449	233	337	322	405	516	833	185.5	3.58
香川県	565	170	225	261	274	308	531	94.0	3.12
愛媛県	810	437	544	704	868	1073	1562	192.8	3.57
高知県	432	248	374	403	541	601	729	168.8	2.94
福岡県	2978	3333	4128	4631	5146	6166	7520	252.5	2.26
佐賀県	462	435	608	877	1113	1187	1061	229.7	2.44
長崎県	819	495	497	447	598	768	1180	144.1	2.38
熊本県	1025	655	869	1141	1405	1626	2230	217.6	3.40
大分県	663	299	404	470	539	681	853	128.7	2.85
宮崎県	639	315	375	421	618	822	1017	159.2	3.23
鹿児島県	1017	258	334	420	604	914	1271	125.0	4.93
沖縄県	822	833	1042	1352	1930	2547	3755	456.8	4.51
合計	74337	61672	75539	89074	100287	116562	153816	206.9	2.49

表7. HIV相談件数の年次推移、人口比、増加率

都道府 県名	15-59 歳人口	1999	2000	2001	2002	2003	2004	2005	2006	2007		増加率 (2007 年 /2002 年)
										件数	件数/ 人口10 万	
北海道	3305	2,261	2,306	2,274	2,030	2,232	2,182	2,837	3,001	3375	102	1.66
青森県	816	759	718	1,011	832	747	793	1,156	1,375	1591	195	1.91
岩手県	757	424	415	543	517	596	651	190	387	264	35	0.51
宮城県	1411	1,554	1,656	1,751	1,463	1,727	1,752	646	630	796	56	0.54
秋田県	615	419	530	550	416	502	825	171	297	395	64	0.95
山形県	661	521	638	695	548	738	956	398	217	191	29	0.35
福島県	1173	567	1,231	1,052	834	1,000	1,160	651	1,101	1700	145	2.04
茨城県	1743	1,602	1,749	2,382	1,410	1,753	2,131	1,818	2,611	3738	214	2.65
栃木県	1185	1,238	1,449	1,822	1,583	2,194	2,804	2,760	3,134	3923	331	2.48
群馬県	1150	1,490	1,496	1,785	1,359	1,559	1,512	1,030	1,053	745	65	0.55
埼玉県	4309	4,497	5,326	10,376	6,125	6,565	9,144	13,074	12,405	16958	394	2.77
千葉県	3654	2,587	2,928	3,187	2,788	4,190	4,335	4,770	6,487	8222	225	2.95
東京都	7681	16,958	16,896	24,278	17,198	23,007	24,355	45,946	50,387	59904	780	3.48
神奈川県	5399	9,657	9,086	11,282	7,779	8,080	12,605	15,480	16,338	21471	398	2.76
新潟県	1351	1,384	1,526	1,617	1,121	1,617	2,044	1,920	3,017	3716	275	3.31
山梨県	493	614	583	762	707	865	912	817	411	358	73	0.51
長野県	1182	2,000	2,015	2,304	1,438	1,882	2,012	2,821	3,783	5855	495	4.07
富山県	616	924	887	738	696	913	1,032	1,201	880	1314	213	1.89
石川県	675	698	531	760	765	917	1,129	408	445	524	78	0.68
福井県	452	423	384	384	291	414	440	724	846	1185	262	4.07
岐阜県	1186	545	515	622	476	550	644	535	764	1156	97	2.43
静岡県	2150	3,422	3,748	4,498	4,414	4,486	4,916	3,131	3,460	3693	172	0.84
愛知県	4295	7,142	7,576	13,576	9,158	11,124	11,358	7,036	7,279	8151	190	0.89
三重県	1044	910	809	966	757	855	866	852	873	1190	114	1.57
滋賀県	816	1,016	1,138	1,195	1,102	1,237	1,339	2,256	1,918	2293	281	2.08
京都府	1539	2,128	2,209	3,455	2,068	2,336	2,680	889	744	852	55	0.41
大阪府	5133	12,558	12,223	16,200	13,436	15,718	16,436	15,685	16,570	20077	391	1.49
兵庫県	3216	3,806	4,328	7,480	4,284	4,287	4,999	2,960	2,126	2766	86	0.65
奈良県	828	312	327	353	226	260	272	269	447	500	60	2.21
和歌山県	563	392	363	418	458	624	543	498	542	450	80	0.98
鳥取県	334	219	128	77	157	285	500	138	148	133	40	0.85
島根県	389	171	236	296	310	293	326	343	345	387	99	1.25
岡山県	1091	1,446	1,310	1,943	2,114	2,833	2,684	1,630	1,815	2184	200	1.03
広島県	1639	2,462	2,749	2,683	1,967	2,568	3,119	3,522	4,045	5581	341	2.84
山口県	805	801	823	676	864	1,094	1,347	925	912	1018	126	1.18
徳島県	449	427	523	501	384	580	596	886	812	1144	255	2.98
香川県	565	949	779	591	527	597	731	937	1,080	1452	257	2.76
愛媛県	810	950	1,209	813	853	1,030	1,234	1,599	2,031	2705	334	3.17
高知県	432	267	383	382	391	502	540	208	167	134	31	0.34
福岡県	2978	5,916	5,942	7,024	7,876	9,436	9,848	9,777	9,696	9786	329	1.24
佐賀県	462	1,075	1,083	1,106	1,007	1,196	1,670	1,263	1,299	1001	217	0.99
長崎県	819	652	722	653	773	913	895	985	849	953	116	1.23
熊本県	1025	766	953	1,057	893	1,121	1,481	1,482	2,005	2611	255	2.92
大分県	663	973	1,237	1,306	1,093	1,202	1,015	1,314	1,628	2147	324	1.96
宮崎県	639	1,210	1,319	1,139	1,114	1,333	1,502	1,602	1,095	985	154	0.88
鹿児島県	1017	470	547	452	386	468	581	833	1,369	1995	196	5.17
沖縄県	822	1,644	1,737	2,254	1,923	1,727	1,689	1,101	827	2778	338	1.44
合計	74337	103,206	107,266	141,269	108,911	130,153	146,585	161,474	173,651	214,347	288	1.97

表8. 平成18年度エイズ対策促進事業補助金・特定感染症検査等事業補助金 実績額(総事業費) (円)

	普及啓発及び教育関係				検査・相談体制				医療提供体制の再構築関係							合計
	①マンパワー養成	②啓発普及活動	③地域活動促進	④調査研究	計	検査・相談事業	①協議会運営	②治療促進	③医療実地研修	④カウンセラー	⑤その他	計				
												⑥	⑦			
北海道	548,810	3,652,669	0	0	4,201,479	6,632,447	355,920	1,300,000	0	3,710,000	104,520	5,470,440	16,304,366			
青森県	109,660	1,917,300	0	0	2,026,960	1,783,079	0	524,796	0	0	31,000	555,796	4,365,835			
岩手県	429,000	7,462,000	900,000	0	8,791,000	1,069,195	301,000	269,000	0	0	0	570,000	10,430,195			
宮城県	580,090	1,669,728	0	0	2,249,818	4,985,261	175,800	0	66,135	0	0	241,935	7,477,014			
秋田県	339,036	1,481,930	453,796	0	2,274,762	2,474,777	47,079	0	355,646	0	0	402,725	5,152,264			
山形県	0	0	0	0	0	2,381,000	51,662	378,782	0	0	0	430,444	2,811,444			
福島県	821,566	5,500,159	0	0	6,321,725	6,951,527	275,160	50,780	0	0	0	325,940	13,599,192			
茨城県	0	3,248,361	0	0	3,248,361	6,321,079	143,866	172,082	0	0	0	315,948	9,885,388			
栃木県	190,000	2,627,099	452,592	0	3,269,691	6,606,240	0	696,200	1,600,000	387,560	67,080	2,750,840	12,626,771			
群馬県	1,270,730	8,007,709	0	0	9,278,439	2,317,977	0	926,000	0	750,000	0	1,676,000	13,272,416			
埼玉県	1,118,000	2,804,899	0	0	3,922,899	19,052,000	256,440	1,110,000	0	3,171,200	0	4,537,640	27,512,539			
千葉県	68,000	18,120,047	0	0	18,188,047	24,551,334	0	2,000,000	0	0	0	2,000,000	44,739,381			
東京都	5,627,217	30,297,880	0	0	35,925,097	219,066,884	426,919	7,525,266	1,065,538	12,411,611	2,525,755	16,429,823	271,421,804			
神奈川県	1,105,060	23,426,695	13,724,313	0	38,256,068	66,266,628	630,361	7,525,266	0	10,223,310	0	18,378,937	122,901,633			
新潟県	366,040	2,570,390	0	0	2,936,430	4,180,010	77,246	337,785	0	0	0	415,031	7,531,471			
富山県	1,223,386	2,716,663	0	0	3,940,049	1,993,556	0	5,300	243,600	0	0	248,900	6,182,505			
石川県	1,470,560	1,188,443	0	0	2,659,003	4,167,353	0	894,219	72,300	0	0	966,519	7,792,875			
福井県	208,400	1,232,700	0	0	1,441,100	1,024,845	141,000	195,300	0	0	0	336,300	2,802,245			
山梨県	332,840	5,363,895	768,600	0	6,465,335	2,561,327	0	981,763	1,048,055	0	0	2,029,818	11,056,480			
長野県	264,970	4,448,571	30,890	0	4,744,431	8,543,358	68,226	1,763,800	0	0	0	1,832,026	15,119,815			
岐阜県	484,337	3,486,419	0	0	3,970,756	3,084,530	115,000	1,353,979	0	0	0	1,468,929	8,524,215			
静岡県	4,332,400	12,969,544	0	1,632,000	18,933,944	10,176,571	232,000	2,048,000	0	685,000	800,000	3,785,000	32,875,515			
愛知県	956,590	9,867,283	0	0	10,823,873	18,494,285	64,000	1,271,656	0	0	0	1,335,656	30,653,814			
三重県	679,770	483,723	737,191	0	1,900,684	1,806,500	0	765,544	1,350,455	0	0	2,115,999	5,823,183			
滋賀県	68,160	974,000	1,016,940	0	2,059,100	9,561,531	75,020	252,420	0	2,934,478	0	3,261,918	14,882,949			
京都府	2,698,270	13,096,852	0	0	15,795,122	12,709,145	210,000	182,000	0	1,675,000	0	2,067,000	30,571,267			
大阪府	2,587,508	32,308,937	1,942,200	0	36,838,645	51,133,875	77,500	560,976	0	210,240	0	848,716	88,821,236			
兵庫県	3,267,600	12,598,854	2,015,000	0	17,879,454	28,992,754	51,800	673,852	0	750,000	0	1,475,652	48,347,860			
奈良県	205,880	711,063	225,000	0	1,141,943	1,227,464	83,380	0	62,000	806,000	0	951,380	3,320,787			
和歌山県	742,810	1,782,950	287,440	0	2,813,200	1,451,814	71,700	130,020	39,020	3,041,040	0	3,281,780	7,546,794			
鳥取県	446,380	1,989,070	0	0	2,435,450	1,700,743	0	289,404	0	0	0	289,404	4,425,597			
島根県	387,947	2,859,557	0	0	3,247,504	1,355,948	48,427	432,684	140,370	378,000	0	999,481	5,602,933			
岡山県	1,284,470	4,208,719	3,149,410	0	8,642,599	8,729,158	117,585	872,330	403,760	454,890	0	1,848,565	19,220,322			
広島県	571,460	1,842,093	269,631	0	2,683,184	10,381,894	146,638	188,162	0	793,700	0	1,128,500	14,193,578			
山口県	1,242,080	3,305,076	958,720	0	5,505,876	2,254,346	632,400	309,400	0	528,000	0	1,469,800	9,230,022			
徳島県	80,429	7,028,856	0	0	7,109,285	2,386,000	0	48,447	64,500	252,800	0	365,747	9,863,032			
香川県	191,870	2,108,864	0	0	2,300,734	949,372	135,400	151,421	0	0	0	286,821	3,536,927			
愛媛県	1,056,258	2,000,075	139,480	0	3,195,813	3,395,845	126,100	285,644	91,220	15,494	0	518,458	7,110,116			
高知県	243,070	403,310	0	0	646,380	1,166,721	49,000	351,000	0	0	0	400,000	2,213,101			
福岡県	1,857,180	24,222,257	0	2,000,000	28,079,437	33,699,871	167,460	323,580	0	2,108,860	0	2,599,900	64,379,208			
佐賀県	598,715	3,740,071	0	0	4,338,786	2,190,073	0	762,414	0	147,000	0	909,414	7,438,213			
長崎県	680,200	5,945,548	0	0	6,625,748	2,337,666	249,670	970,000	0	392,600	0	1,612,270	10,575,684			
熊本県	857,753	8,643,839	222,891	0	9,724,483	5,011,120	498,994	104,870	0	847,457	0	1,451,321	16,186,924			
大分県	946,860	3,930,384	0	0	4,877,244	1,512,789	264,705	815,050	74,200	143,000	0	1,296,960	7,686,993			
宮崎県	529,420	1,089,525	0	0	1,618,945	3,139,364	0	2,152,000	159,000	417,000	0	2,728,000	7,486,309			
鹿児島県	489,175	4,438,673	0	0	4,927,848	2,644,730	0	126,840	0	11,328	0	138,168	7,110,746			
沖縄県	322,270	3,697,538	345,053	0	4,364,861	3,285,017	70,850	0	41,980	500,000	137,720	750,550	8,400,428			

表9. 啓発度、検査・相談実績のまとめ

都道府県	15~59歳人口(千人)	啓発度(HIV/STD関連知識正解率)								HIV検査件数			HIV相談件数		
		2007年全国世帯調査(中高年対象)				2007年全国自動車教習所調査(若者対象、NA=未実施)				2007年年間件数	2007年年間件数10万人対	増加率(2007/2001)	2007年年間件数	2007年年間件数10万人対	増加率(2007/2001)
		疫学動向関連知識スコア	検査・治療関連知識スコア	感染関連知識スコア	総スコア	疫学動向関連知識スコア	検査・治療関連知識スコア	感染関連知識スコア	総スコア						
北海道	3,305	39.3	42.5	30.2	36.5	56.1	50.9	42.9	49.5	3,619	110	2.53	3,375	102	1.66
青森県	816	32.6	38.0	28.1	32.1	NA	NA	NA	NA	588	72	2.95	1,591	195	1.91
岩手県	757	31.3	38.2	26.7	31.2	52.1	46.4	43.4	47.2	725	96	2.33	264	35	0.51
宮城県	1,411	34.3	35.6	25.1	30.9	57.4	52.0	45.4	51.3	2,087	148	3.15	796	56	0.54
秋田県	615	30.5	40.8	24.3	30.6	46.9	48.0	36.9	43.2	672	109	3.82	395	64	0.95
山形県	661	25.9	30.2	20.5	24.8	53.1	43.8	42.5	46.5	864	131	4.30	191	29	0.35
福島県	1,173	38.5	51.1	29.9	38.2	53.9	46.5	45.3	48.6	1,177	100	3.39	1,700	145	2.04
茨城県	1,743	38.5	42.0	32.7	37.0	53.5	46.6	41.8	47.1	2,714	156	3.49	3,738	214	2.65
栃木県	1,185	36.9	46.0	31.7	37.1	61.6	52.2	49.3	54.3	2,579	218	2.89	3,923	331	2.48
群馬県	1,150	37.2	49.6	34.6	39.2	59.6	53.2	47.8	53.3	1,842	160	3.12	745	65	0.55
埼玉県	4,309	37.5	46.6	32.8	37.9	53.3	50.4	43.4	48.6	5,338	124	3.44	16,958	394	2.77
千葉県	3,654	37.0	44.6	31.0	36.5	53.3	48.6	41.7	47.5	6,369	174	2.69	8,222	225	2.95
東京都	7,681	43.0	48.6	35.0	41.2	53.0	50.2	40.4	47.2	28,965	377	2.00	59,904	780	3.48
神奈川県	5,399	41.7	48.2	33.5	40.1	51.4	48.6	41.1	46.6	11,768	218	2.02	21,471	398	2.76
新潟県	1,351	33.3	39.0	24.4	31.2	61.2	54.2	45.6	53.2	1,492	110	2.75	3,716	275	3.31
山梨県	493	34.9	38.2	28.2	33.0	51.8	51.3	39.1	46.6	943	191	2.64	358	73	0.51
長野県	1,182	38.0	46.4	29.7	36.8	56.1	49.6	42.5	49.1	3,659	310	3.31	5,855	495	4.07
岐阜県	1,186	36.6	42.4	29.6	35.3	58.0	51.9	45.4	51.4	814	69	2.40	1,156	97	2.43
静岡県	2,150	35.0	42.4	28.5	34.3	51.1	42.6	45.1	46.6	3,821	178	2.75	3,693	172	0.84
三重県	1,044	31.7	37.8	25.0	30.5	47.4	44.1	36.5	42.2	1,383	132	2.98	1,190	114	1.57
愛知県	4,295	39.1	41.8	29.6	36.0	57.3	50.4	44.0	50.2	11,240	262	2.54	8,151	190	0.89
富山県	616	34.4	40.7	28.6	33.7	52.8	51.0	40.4	47.4	780	127	2.97	1,314	213	1.89
福井県	452	28.6	36.3	23.1	28.3	62.3	57.0	46.0	54.5	581	129	4.01	1,185	262	4.07
石川県	675	38.9	47.2	29.6	37.2	52.3	47.6	39.2	45.9	1,230	182	3.34	524	78	0.68
滋賀県	816	40.2	43.4	29.8	36.8	59.1	49.8	45.0	51.1	797	98	2.12	2,293	281	2.08
京都府	1,539	41.6	47.9	33.6	40.0	50.7	48.9	41.8	46.7	3,373	219	2.88	852	55	0.41
大阪府	5,133	39.3	43.3	28.6	36.0	49.0	47.0	37.0	43.7	17,609	343	2.18	20,077	391	1.49
兵庫県	3,216	40.0	44.3	32.8	38.2	56.0	50.9	46.5	50.9	5,631	175	2.43	2,766	86	0.65
奈良県	828	36.8	40.5	29.4	34.8	59.9	46.4	45.1	50.6	1,125	136	3.58	500	60	2.21
和歌山県	563	30.8	33.1	22.6	28.1	51.2	48.5	40.5	46.3	521	93	2.10	450	80	0.98
鳥取県	334	33.2	36.7	24.5	30.6	58.4	50.5	46.0	51.5	761	228	4.48	133	40	0.85
島根県	389	32.4	41.8	27.4	32.8	48.1	53.3	42.8	47.3	471	121	2.59	387	99	1.25
岡山県	1,091	36.8	42.3	31.0	35.8	54.2	50.5	44.1	49.2	1,138	104	2.01	2,184	200	1.03
広島県	1,639	35.3	41.7	29.4	34.5	55.2	48.5	43.8	49.0	3,180	194	3.38	5,581	341	2.84
山口県	805	33.4	45.7	28.6	34.6	57.5	52.7	43.8	50.8	1,418	176	3.51	1,018	126	1.18
徳島県	449	39.4	39.4	30.0	35.6	53.2	47.8	41.7	47.2	833	186	3.58	1,144	255	2.98
香川県	565	39.3	47.2	32.8	38.7	NA	NA	NA	0.0	531	94	3.12	1,452	257	2.76
愛媛県	810	32.5	41.3	28.3	33.0	51.1	49.7	40.9	46.6	1,562	193	3.57	2,705	334	3.17
高知県	432	35.4	35.5	25.6	31.5	49.6	47.0	41.3	45.6	729	169	2.94	134	31	0.34
福岡県	2,978	38.4	45.7	31.1	37.3	55.4	49.9	40.0	47.9	7,520	253	2.26	9,786	329	1.24
佐賀県	462	43.5	46.8	32.6	40.0	58.4	53.4	41.0	50.2	1,061	230	2.44	1,001	217	0.99
長崎県	819	38.7	45.1	30.8	37.1	53.0	43.8	41.6	46.1	1,180	144	2.38	953	116	1.23
熊本県	1,025	33.7	35.3	24.0	30.2	53.2	44.6	40.5	46.0	2,230	218	3.40	2,611	255	2.92
大分県	663	39.5	51.7	32.6	39.8	55.3	47.0	42.3	48.0	853	129	2.85	2,147	324	1.96
宮崎県	639	35.2	36.0	24.3	31.0	NA	NA	NA	0.0	1,017	159	3.23	985	154	0.88
鹿児島県	1,017	36.8	41.8	28.1	34.6	52.6	45.9	40.4	46.0	1,271	125	4.93	1,995	196	5.17
沖縄県	822	42.7	49.0	32.4	40.2	70.6	52.1	60.0	61.7	3,755	457	4.51	2,778	338	1.44

表10. エイズ関連予算及びサービス時間

都道府県	15～59歳人口(千人)	エイズ対策予算										年間サービス時間				
		合計(万円)		普及啓発関係(万円)		検査・相談関係(万円)		「普及啓発+検査」(万円)		「普及啓発」/「検査相談」比	医療体制関係(万円)		検査		相談	
		予算総計(万円)	予算総計10万人対(万円)	普及啓発関係(万円)	普及啓発関係(10万人対、万円)	検査・相談関係(万円)	検査・相談関係(10万人対、万円)	普及啓発+検査相談(万円)	普及啓発+検査相談(10万人対、万円)		医療体制関係(万円)	医療体制関係(10万人対、万円)	HIV検査(延べ時間)	HIV検査(人口10万人対、時間)	HIV相談(延べ時間)	HIV相談(人口10万人対、時間)
北海道	3,305	1,630	49.3	420	12.7	663	20.1	1,083	32.8	0.63	547	16.6	5,643	170.7	76,080	2,302
青森県	816	437	53.5	203	24.8	178	21.9	381	46.7	1.14	56	6.8	180	22.1	12,752	1,563
岩手県	757	1,043	137.8	879	116.1	107	14.1	986	130.3	8.22	57	7.5	290	38.3	23,040	3,044
宮城県	1,411	748	53.0	225	15.9	499	35.3	724	51.3	0.45	24	1.7	713	50.5	28,236	2,001
秋田県	615	515	83.8	227	37.0	247	40.2	475	77.2	0.92	40	6.5	583	94.8	17,791	2,893
山形県	661	281	42.5	0	0.0	238	36.0	238	36.0	0.00	43	6.5	260	39.3	7,626	1,154
福島県	1,173	1,360	115.9	632	53.9	695	59.3	1,327	113.2	0.91	33	2.8	1,584	135.0	17,040	1,453
茨城県	1,743	989	56.7	325	18.6	632	36.3	957	54.9	0.51	32	1.8	1,165	66.8	23,520	1,349
栃木県	1,185	1,263	106.6	327	27.6	661	55.7	988	83.3	0.49	275	23.2	570	48.1	13,091	1,105
群馬県	1,150	1,327	115.4	928	80.7	232	20.2	1,160	100.8	4.00	168	14.6	684	59.5	21,216	1,845
埼玉県	4,309	2,751	63.8	392	9.1	1,905	44.2	2,297	53.3	0.21	454	10.5	493	11.4	36,896	856
千葉県	3,654	4,474	122.4	1,819	49.8	2,455	67.2	4,274	117.0	0.74	200	5.5	670	18.3	36,480	998
東京都	7,681	27,142	353.4	3,593	46.8	21,907	285.2	25,499	332.0	0.16	1,643	21.4	2,761	35.9	189,036	2,461
神奈川県	5,399	12,290	227.6	3,826	70.9	6,627	122.7	10,452	193.6	0.58	1,838	34.0	2,448	45.3	80,634	1,493
新潟県	1,351	753	55.7	294	21.7	418	30.9	712	52.7	0.70	42	3.1	2,412	178.5	25,299	1,873
山梨県	493	1,106	224.3	647	131.1	256	52.0	903	183.1	2.52	203	41.2	7,352	1,491.3	9,656	1,959
長野県	1,182	1,512	127.9	474	40.1	854	72.3	1,329	112.4	0.56	183	15.5	1,588	134.3	33,740	2,854
岐阜県	1,186	852	71.9	397	33.5	308	26.0	706	59.5	1.29	147	12.4	521	43.9	15,360	1,295
静岡県	2,150	3,288	152.9	1,893	88.1	1,018	47.3	2,911	135.4	1.86	377	17.5	2,304	107.2	43,200	2,009
三重県	1,044	582	55.8	190	18.2	181	17.3	371	35.5	1.05	212	20.3	804	77.0	17,720	1,697
愛知県	4,295	3,065	71.4	1,082	25.2	1,849	43.1	2,932	68.3	0.59	134	3.1	3,488	81.2	30,720	715
富山県	616	618	100.4	394	64.0	199	32.4	593	96.3	1.98	25	4.0	918	149.0	19,440	3,156
福井県	452	280	62.0	144	31.9	102	22.7	247	54.6	1.41	34	7.4	375	83.0	16,926	3,745
石川県	675	779	115.5	266	39.4	417	61.7	683	101.1	0.64	97	14.3	3,168	469.3	18,496	2,740
滋賀県	816	1,488	182.4	206	25.2	956	117.2	1,162	142.4	0.22	326	40.0	360	44.1	15,744	1,929
京都府	1,539	3,057	198.6	1,580	102.6	1,271	82.6	2,850	185.2	1.24	207	13.4	2,664	173.1	43,632	2,835
大阪府	5,133	8,882	173.0	3,684	71.8	5,113	99.6	8,797	171.4	0.72	85	1.7	2,851	55.5	104,304	2,032
兵庫県	3,216	4,835	150.3	1,788	55.6	2,899	90.2	4,687	145.7	0.62	148	4.6	993	30.9	68,544	2,131
奈良県	828	332	40.1	114	13.8	123	14.8	237	28.6	0.93	95	11.5	620	74.9	11,560	1,396
和歌山県	563	755	134.0	281	50.0	145	25.8	427	75.8	1.94	328	58.3	574	102.0	19,968	3,547
鳥取県	334	443	132.5	244	72.9	170	50.9	414	123.8	1.43	29	8.7	211	63.2	7,680	2,299
島根県	389	560	144.0	325	83.5	136	34.9	460	118.3	2.40	100	25.7	4,990	1,282.8	14,637	3,763
岡山県	1,091	1,922	176.2	864	79.2	873	80.0	1,737	159.2	0.99	185	16.9	793	72.7	25,415	2,330
広島県	1,639	1,419	86.6	268	16.4	1,038	63.3	1,307	79.7	0.26	113	6.9	1,460	89.1	38,952	2,377
山口県	805	923	114.7	551	68.4	225	28.0	776	96.4	2.44	147	18.3	835	103.7	19,632	2,439
徳島県	449	986	219.7	711	158.3	239	53.2	950	211.5	2.98	37	8.1	180	40.1	11,520	2,566
香川県	565	354	62.6	230	40.7	95	16.8	325	57.5	2.42	29	5.1	454	80.4	8,400	1,487
愛媛県	810	711	87.8	320	39.5	340	41.9	659	81.4	0.94	52	6.4	439	54.2	14,577	1,800
高知県	432	221	51.2	65	15.0	117	27.0	181	42.0	0.55	40	9.3	188	43.5	11,826	2,738
福岡県	2,978	6,438	216.2	2,808	94.3	3,370	113.2	6,178	207.5	0.83	260	8.7	2,149	72.2	56,917	1,911
佐賀県	462	744	161.0	434	93.9	219	47.4	653	141.3	1.98	91	19.7	881	190.7	9,857	2,134
長崎県	819	1,058	129.1	663	80.9	234	28.5	896	109.4	2.83	161	19.7	16,359	1,997.4	19,871	2,426
熊本県	1,025	1,619	157.9	972	94.9	501	48.9	1,474	143.8	1.94	145	14.2	11,531	1,125.0	22,464	2,192
大分県	663	769	115.9	488	73.6	151	22.8	639	96.4	3.22	130	19.6	1,058	159.6	29,036	4,379
宮崎県	639	749	117.2	162	25.3	314	49.1	476	74.5	0.52	273	42.7	498	77.9	19,440	3,042
鹿児島県	1,017	771	75.8	493	48.5	264	26.0	757	74.5	1.86	14	1.4	17,693	1,739.7	25,045	2,463
沖縄県	822	840	102.2	436	53.1	329	40.0	765	93.1	1.33	75	9.1	4,997	607.9	12,280	1,494

表11. 順位スコアによるアウトカムの総合評価の試み

都道府県	啓発度		検査数		相談数		総合順位	
	F. 総スコア	順位スコア	G. 2007年 年間件数1 0万人対	順位スコア	H. 2007年 年間件数10 万対	順位スコア	順位スコア 得点総和 (F+2G+H)	順位スコア 得点総和 (F+2G+H)
北海道	41.2	47	377	46	780	47	186	1
東京都	40.2	46	457	47	338	41	181	2
神奈川県	40.1	45	218	38	398	45	166	3
千葉県	36.8	30	310	44	495	46	164	4
埼玉県	36.0	27	343	45	391	43	160	5
東京都	37.3	36	253	42	329	38	158	6
東京都	40.0	43	230	41	217	29	154	7
東京都	37.1	33	218	37	331	39	146	8
東京都	36.0	26	262	43	190	23	135	9
東京都	34.5	19	194	35	341	42	131	10
東京都	40.0	44	219	39	55	5	127	11
東京都	33.0	16	193	34	334	40	124	12
東京都	35.6	24	186	32	255	32	120	13
千葉県	36.5	29	174	27	225	30	113	14
東京都	39.8	42	129	17	324	37	113	15
東京都	37.2	35	182	31	78	11	108	16
東京都	37.9	37	124	13	394	44	107	17
東京都	30.2	4	218	36	255	31	107	18
東京都	38.2	38	175	28	86	13	107	19
東京都	37.0	32	156	23	214	28	106	20
東京都	34.3	18	178	30	172	22	100	21
東京都	39.2	41	160	25	65	9	100	22
東京都	34.6	20	176	29	128	19	97	23
東京都	37.1	34	144	21	116	18	94	24
東京都	33.0	15	191	33	73	10	91	25
東京都	30.6	6	228	40	4	4	90	26
東京都	38.7	40	94	4	257	33	81	27
東京都	36.8	31	98	6	281	36	79	28
東京都	31.0	9	159	24	154	21	78	29
東京都	33.7	17	127	15	213	27	74	30
東京都	34.6	21	125	14	196	25	74	31
東京都	38.2	39	100	7	145	20	73	32
東京都	28.3	3	129	16	262	34	69	33
東京都	34.8	22	136	20	60	7	69	34
東京都	35.8	25	104	8	200	26	67	35
東京都	31.2	10	110	11	275	35	67	36
東京都	31.5	12	169	26	31	2	66	37
東京都	36.5	28	110	10	102	16	64	38
東京都	30.5	5	132	19	114	17	60	39
東京都	30.9	8	148	22	56	6	58	40
東京都	32.8	14	121	12	99	15	53	41
東京都	32.1	13	72	2	195	24	41	42
東京都	35.3	23	69	1	97	14	39	43
東京都	24.8	1	131	18	29	1	38	44
東京都	30.6	7	109	64	8	1	33	45
東京都	31.2	11	96	5	35	3	24	46
東京都	28.1	2	93	3	80	12	20	47

* 順位スコアは重点政策である検査スコアを2倍して合計

表12. 順位スコアによるHIV検査・相談サービスの総合評価の試み

都道府県	HIV検査(人 10万人対、 時間)	検査サービス 順位スコア	HIV相談(人 10万人対、 時間)	相談サービス 順位スコア	順位スコア得 点総和 (F+2G+H)	順位スコア得 点総和 (F+2G+H)
東京都	1,282.8	44	3,763	46	90	1
東京都	159.6	36	4,379	47	83	2
東京都	1,739.7	46	2,463	34	80	3
東京都	149.0	35	3,156	43	78	4
東京都	469.3	41	2,740	37	78	5
東京都	1,997.4	47	2,426	31	78	6
東京都	173.1	38	2,835	38	76	7
東京都	102.0	30	3,547	44	74	8
東京都	134.3	33	2,854	39	72	10
東京都	94.8	29	2,893	40	69	11
東京都	1,125.0	43	2,192	26	69	12
東京都	77.9	24	3,042	41	65	13
東京都	170.7	37	2,502	28	65	14
東京都	1,491.3	45	1,959	25	65	15
東京都	103.7	31	2,439	32	63	17
東京都	89.1	28	2,377	30	58	18
東京都	178.5	39	1,873	17	56	19
東京都	107.2	32	2,009	22	54	20
東京都	607.9	42	1,494	12	54	21
東京都	72.7	21	2,330	29	50	22
東京都	38.3	6	3,044	42	48	23
東京都	43.5	9	2,738	36	45	24
東京都	63.2	18	2,299	27	45	25
東京都	40.1	8	2,566	35	43	26
東京都	135.0	34	1,453	9	43	27
東京都	55.5	16	2,032	23	39	28
東京都	35.9	5	2,461	33	38	29
東京都	72.2	20	1,911	18	38	30
東京都	77.0	23	1,697	14	37	31
東京都	50.5	14	2,001	21	35	32
東京都	80.4	25	1,487	10	35	33
東京都	59.5	17	1,845	16	33	34
東京都	44.1	11	1,929	19	30	35
東京都	54.2	15	1,800	15	30	36
東京都	74.9	22	1,396	8	30	37
東京都	30.9	4	2,131	24	28	38
東京都	81.2	26	715	1	27	39
東京都	66.8	19	1,349	7	26	40
東京都	45.3	12	1,493	11	23	41
東京都	48.1	13	1,105	4	17	42
東京都	22.1	3	1,563	13	16	43
東京都	43.9	7	1,295	6	16	44
東京都	39.3	10	1,154	5	12	45
東京都	18.3	2	998	3	5	46
東京都	11.4	1	856	2	3	47

表13. 相関分析に用いた変数の基本等計量

変数	度数	平均値 (万円)	標準偏差 (万円)	パーセンタイル		
				25	50	75
補助金予算総計(人口*10万人対、円)	47	68.4	37.5	39.0	64.9	86.5
普及啓発関係	47	30.2	19.4	14.1	28.1	43.8
検査相談関係	47	30.2	27.0	14.7	24.1	35.5
医療供給関係	47	8.0	6.9	3.5	6.4	10.5
HIV/AIDS報告数 (過去5年間の累積/人口10万人、全国籍)	47	0.66	0.61	0.29	0.49	0.86
啓発度						
A分野スコア(動向)(平均正答率、%)	47	36.37	3.85	33.4	36.84	39.29
B分野スコア(検査・治療)(平均正答率、%)	47	42.33	4.91	38.21	42.29	46.38
C分野スコア(感染症)(平均正答率、%)	47	28.99	3.44	26.71	29.58	31.65
総スコア (全問平均正答率、%)	47	34.91	3.72	31.47	35.62	37.31
検査件数 (2007年、人口10万人あたり)	47	73	37.6	47.1	63.7	85.7
相談件数 (2007年、人口10万人あたり)	47	89.4	59.3	38.0	79.1	138.4

*人口のベースは15-59歳

表 14. 変数間の相関

	A報告数 (全国籍)	B報告数 (日本国籍)	C疫学知識	D検査知識	E感染知識	F総スコア	G検査数	H相談数	I予算(普及)	J予算(検査)	K予算 (I+J)
A・全国籍HIV/AIDS過去5年間累積数/ 人口10万対(15-59歳人口)	1										
B・日本国籍HIV/AIDS過去5年間累積数/ 人口10万対(15-59歳人口)	0.988 0.000	1									
C. 疫学動向スコア	0.399 0.005	0.403 0.005	1								
D. 検査・治療スコア	0.302 0.039	0.281 0.056	0.761 0.000	1							
E. 感染知識スコア	0.407 0.005	0.383 0.008	0.850 0.000	0.871 0.000	1						
F. 総スコア	0.395 0.006	0.381 0.008	0.928 0.000	0.928 0.000	0.966 0.000	1					
G. HIV検査件数10万人対	0.638 0.000	0.654 0.000	0.478 0.001	0.318 0.029	0.312 0.032	0.394 0.006	1				
H. HIV相談件数10万人対	0.672 0.000	0.675 0.000	0.426 0.003	0.426 0.003	0.424 0.003	0.452 0.001	0.550 0.000	1			
I. 予算(普及啓発関係)(10万人対、円)	-0.062 0.678	-0.066 0.662	0.207 0.162	0.179 0.228	0.215 0.147	0.214 0.149	0.184 0.216	-0.046 0.760	1		
J. 予算(検査・相談関係)(10万人対、円)	0.758 0.000	0.787 0.000	0.471 0.001	0.333 0.022	0.394 0.006	0.426 0.003	0.530 0.000	0.670 0.000	0.112 0.453	1	
K・啓発検査予算(I+J)	0.529 0.000	0.548 0.000	0.473 0.001	0.353 0.015	0.420 0.003	0.443 0.002	0.503 0.000	0.473 0.001	0.672 0.000	0.811 0.000	1

表 15. HIV/AIDS 発生率で補正後の変数間の相関

	C疫学知識	D検査知識	E感染知識	F総スコア	G検査数	H相談数	I予算(啓発)	J予算(検査)	K予算(I+J)
C. 疫学動向スコア	1.000								
D. 検査・治療スコア	0.732 0.000	1.000							
E. 感染知識スコア	0.821 0.000	0.859 0.000	1.000						
F. 総スコア	0.915 0.000	0.923 0.000	0.959 0.000	1.000					
G. HIV検査件数10万人当たり	0.317 0.032	0.171 0.255	0.075 0.618	0.201 0.180	1.000				
H. HIV相談件数10万人人口当たり	0.232 0.120	0.316 0.032	0.224 0.135	0.275 0.065	0.212 0.157	1.000			
I. 予算(普及啓発関係)(10万人当たり、円)	0.254 0.089	0.208 0.165	0.263 0.077	0.260 0.081	0.291 0.050	-0.005 0.971	1.000		
J. 予算(検査・相談関係)(10万人当たり、円)	0.281 0.058	0.167 0.267	0.143 0.341	0.212 0.158	0.093 0.540	0.333 0.024	0.245 0.101	1.000	
K・予算(I+J)	0.336 0.022	0.240 0.109	0.264 0.076	0.301 0.042	0.254 0.088	0.187 0.214	0.832 0.000	0.742 0.000	1.000

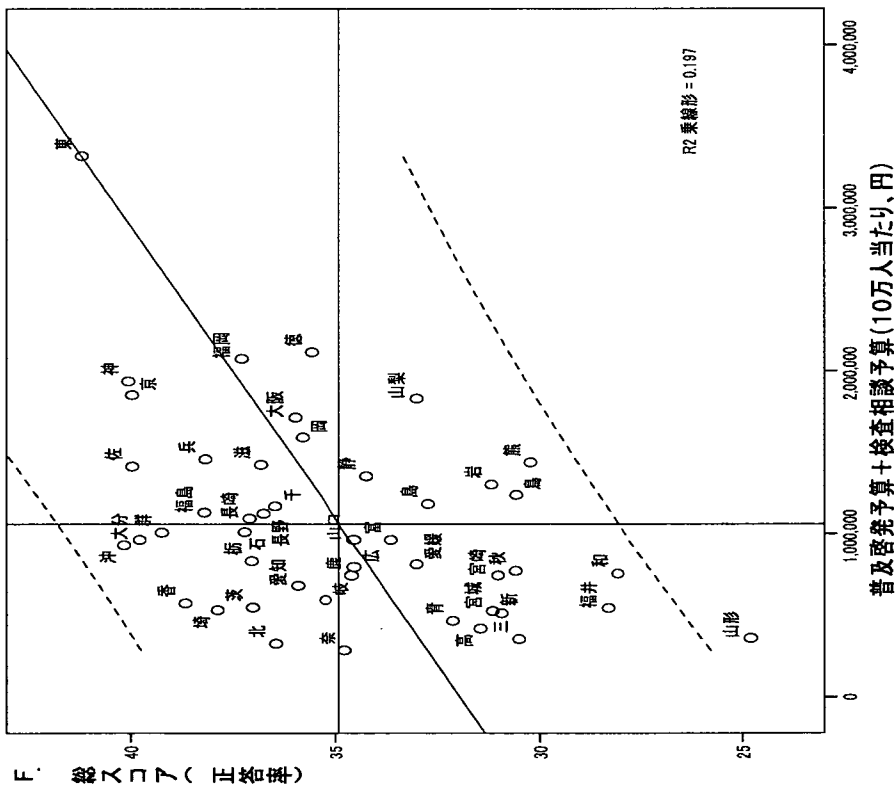


図1. HIV/STD啓発度(総スコア)と啓発検査関連
予測との単純相関

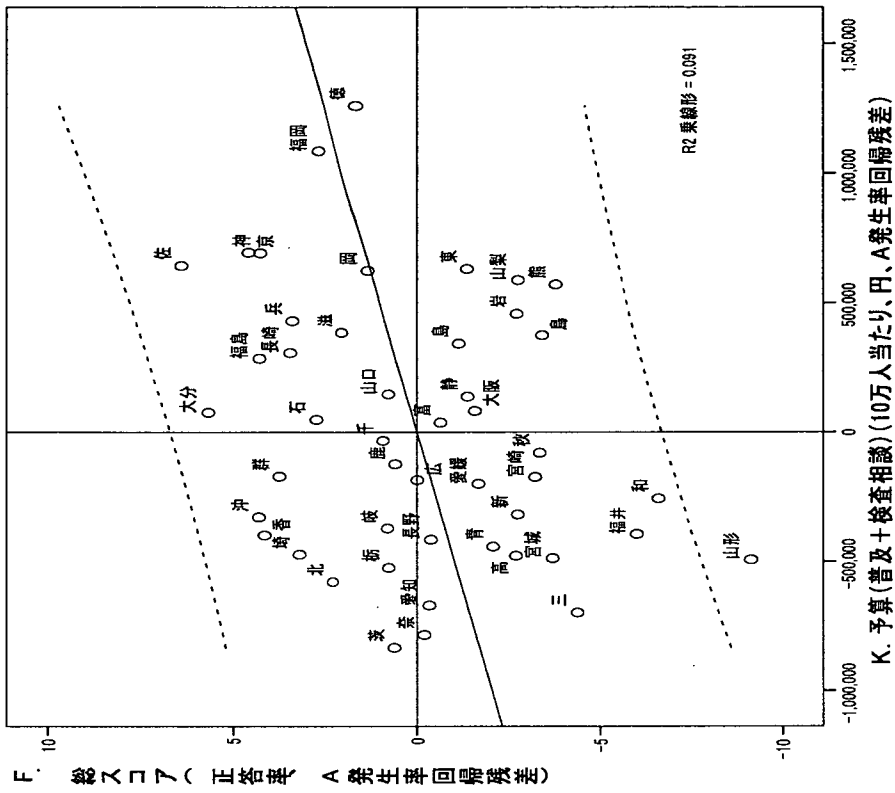


図2. HIV/STD啓発度(総スコア)と啓発検査関連
予測との偏相関(HIV/AIDS発生率で調整)

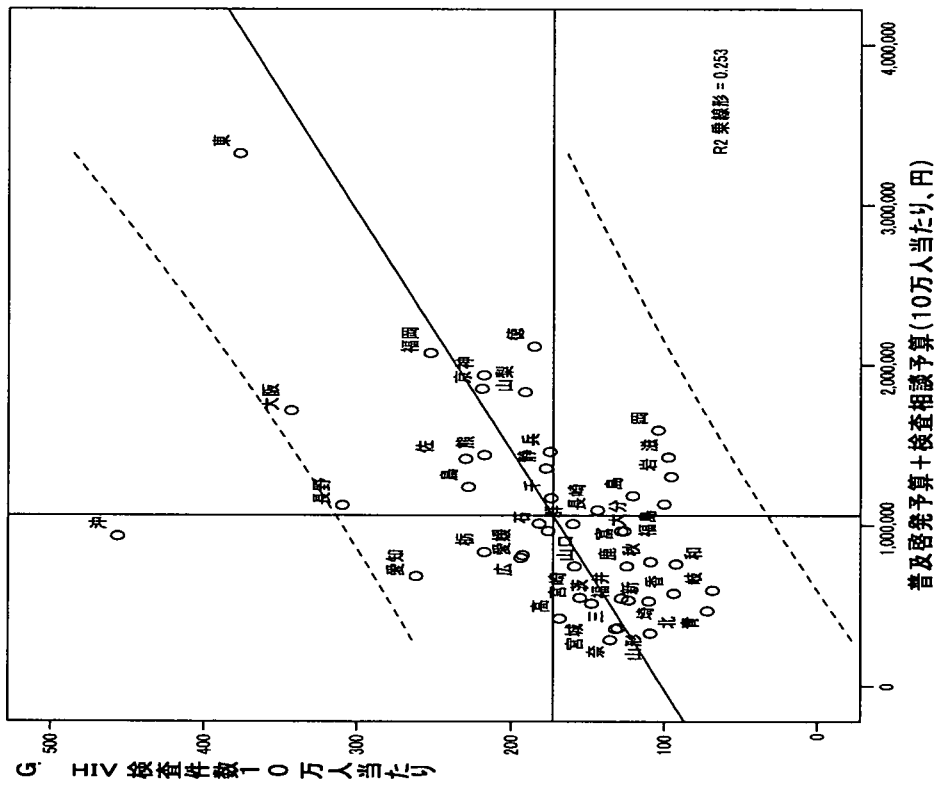


図3. HIV検査件数と啓発検査関連予算との単純相関

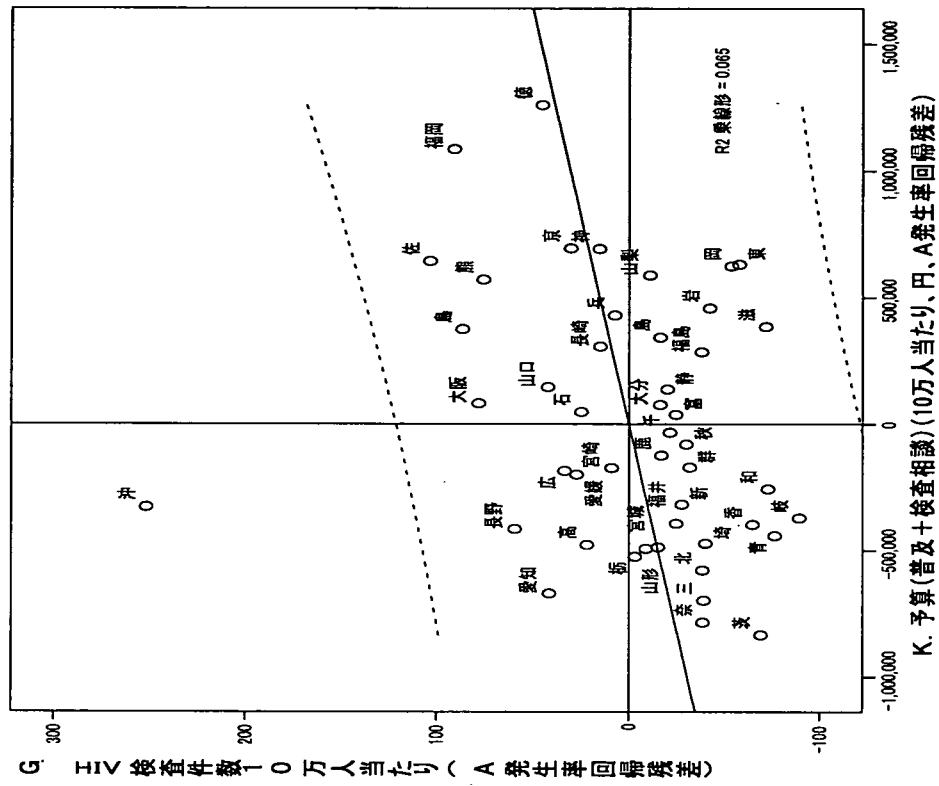


図4. HIV検査件数と啓発検査関連予算との偏相関(HIV/AIDS発生率で調整)

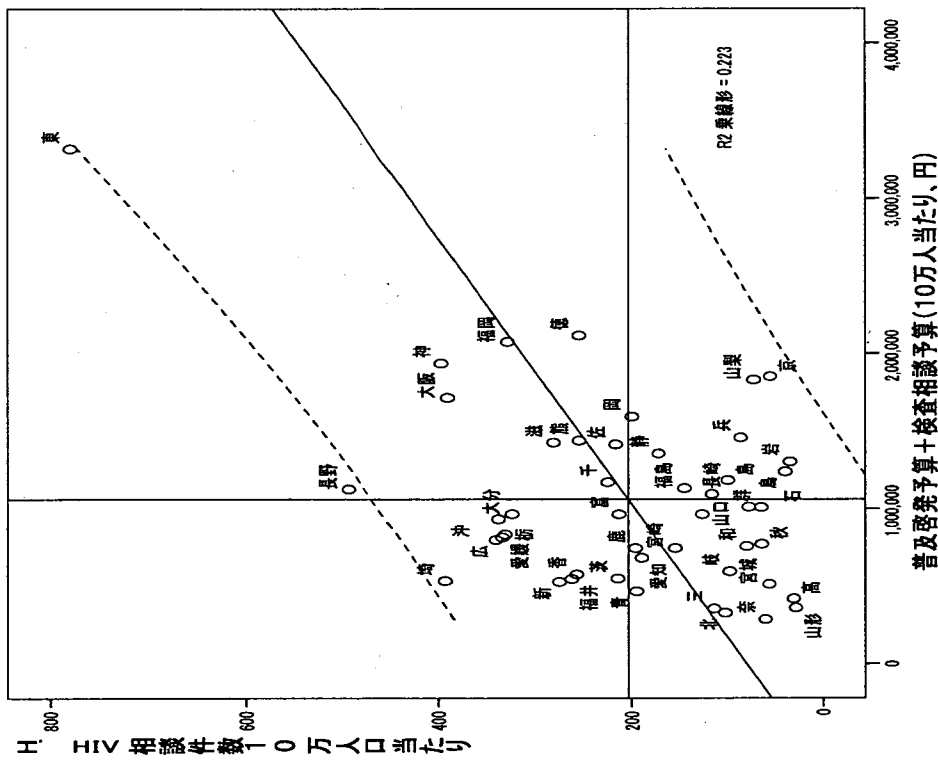


図5. HIV相談件数と啓発検査関連予算との単純相関

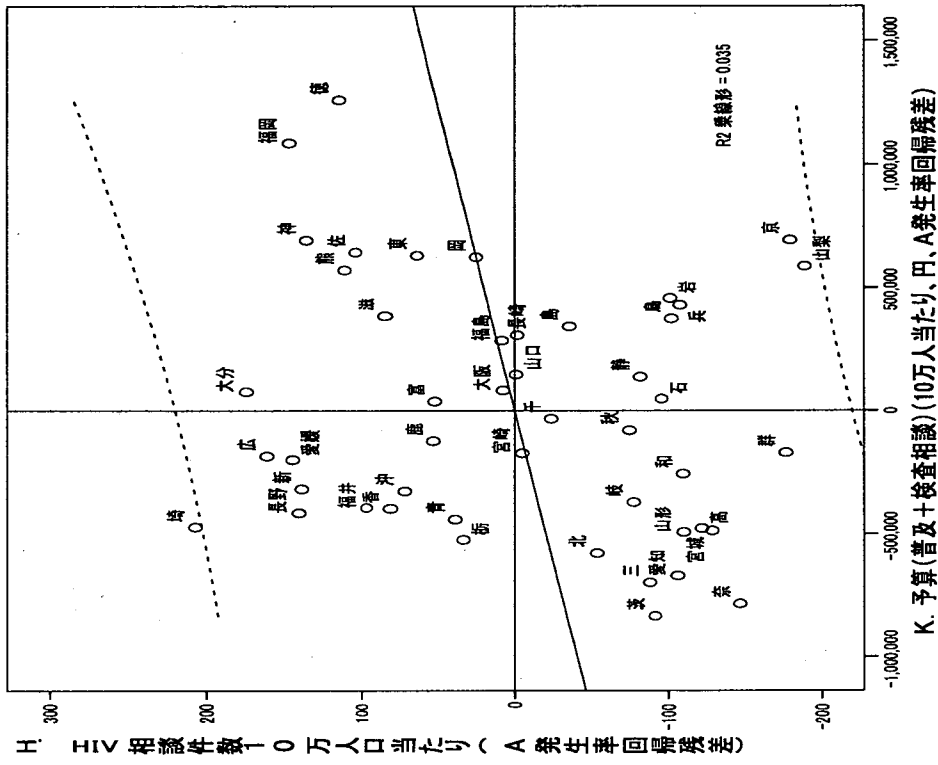


図6. HIV相談件数と啓発検査関連予算との偏相関(HIV/AIDS発生率で調整)

平成 19 年度厚生労働科学研究費補助金（エイズ対策研究事業）
HIV 感染症の動向と影響及び政策のモニタリングに関する研究
分担研究報告書

Estimation and Projection of HIV Epidemic in Japan

—Preliminary findings of modeling practices on data
among Japanese men who have had same gender sex—

Contributors

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Abstract

Background: In Japan, the number of reported annual HIV cases has been increasing, much of this trend due to infections among men who have sex with men (MSM). Sex between men accounted for 60% of new HIV cases in 2006. In order for evaluating the impact and developing appropriate prevention and care measures, it is essential to estimate the number of MSM living with HIV/AIDS in Japan and project the future course of the epidemic among them.

Method: We have used the Workbooks, a package developed by the Reference Group on Estimates, Models and Projections; Joint United Nations Programme on HIV/AIDS (UNAIDS) to make HIV/AIDS estimates in countries with low-level or concentrated epidemics. Available information from Japanese MSM was used in this model to provide an estimate of HIV prevalence, as well as to generate a national epidemic curve. We have used available data on the size and prevalence of HIV infection among Japanese MSM residing inside Japan. These include, ad hoc sero-prevalence studies among MSM, a national internet survey among MSM in 2005, a national sexual survey in 1999, and number of HIV infected cases reported to the surveillance.

Results: We have estimated that there might have been 16,649 adult Japanese MSM with HIV infection in the year 2005, which gives a prevalence of 2.96% considering the average size of adult MSM population to be 563,140. However, the estimated prevalence of HIV infection is higher than this average in large urban areas such as Tokyo, Osaka and Nagoya. We have projected that the epidemic will continue to rise among MSM population at a moderate rate and probably reach higher than 11% before it levels off.

Conclusions: The estimated number of HIV infected cases among Japanese MSM should be seriously considered by health policy makers and managers for an improved resource allocation for controlling the epidemic among this community, as well as preventing it from bridging to other populations at-risk of acquiring HIV infection in Japan.

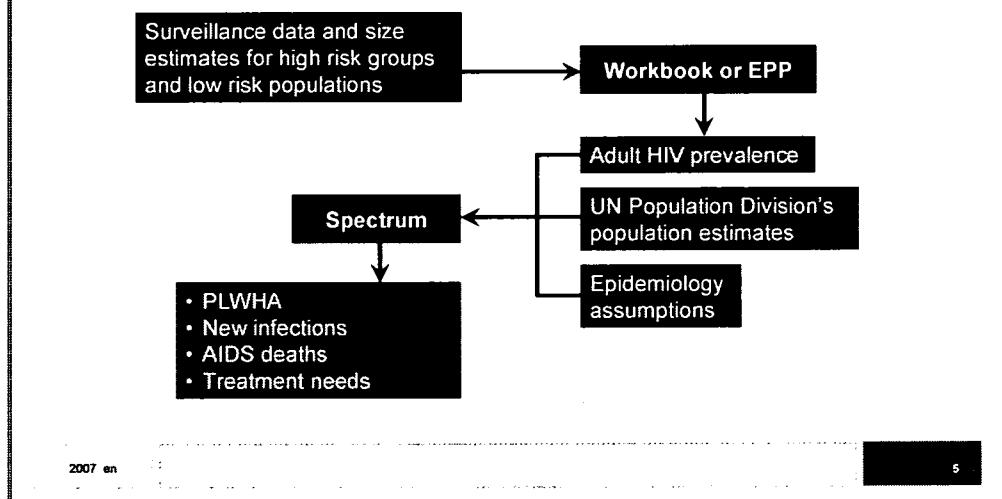
Introduction

While Japan is considered as having a low level HIV epidemic, there has been increasing evidence showing expansion of the epidemic through unprotected sexual intercourse, especially among men who have had sex with same gender partners¹⁻⁴. Available data from a metropolitan HIV testing center shows that estimated prevalence of HIV infection among male visitors who reported having had sex with other men reached 5% between 2002 and 2003⁴. Surveillance data also indicates that HIV infection is more concentrated among Japanese males with same gender sexual partners, as the latest data from the Ministry of Health, Labor and Welfare shows that up to 82.7% (787/952) of newly reported HIV cases in 2006 were among Japanese males, of which 72.5% (571/787) reported having had same gender sexual practices⁵.

In order to best intervene and control HIV epidemic, reliable and timely information on distribution of the infection is required and this can be achieved by a well-designed surveillance program. However, considering the nature of HIV infection as a latent infection and the limitations of any surveillance program, there has been an increasing tendency to develop tools to interpret surveillance data and models to provide timely information for health policy decision makers and other users⁶.

Mathematical models provide a framework for the analysis of surveillance data and they can be applied to generate predictions, to test hypotheses, explore indirect consequences, and to create future scenarios⁶. There are four main models used in HIV surveillance systems that are widely used and inform national and international decision making processes^{6,7}. “Estimation and Projection Package” (EPP) uses HIV prevalence estimates for the general population over a period of more than one year and generates an HIV prevalence curve for generalized HIV epidemics^{6,8}. “Workbooks” essentially requires estimates of the size of high risk groups and the prevalence of infection within them and is able to systematically collate estimates of HIV prevalence over years in places where incidence of HIV is in high risk groups^{6,7,9}. Interestingly, estimates of HIV prevalence from the EPP and Workbooks can be input into “Spectrum Projection Package” which can then project the age specific demographic impact of HIV and AIDS^{6,7,10} (Refer to the figure on page 3). The other model which has been mainly applied in Thailand and Cambodia where rich epidemiological data are available is called “Asian Epidemic Model” (AEM). This model which requires a sizable amount of data on the distributions of high risk behaviors and biological parameters determining transmission dynamics, can predict the course of the HIV epidemic and the impact of interventions^{6,11}.

Overview for low-level/concentrated epidemics



In this report, we explain our modeling exercise using the Workbooks package introduced by the UNAIDS for making HIV prevalence estimates and building future scenarios of HIV/AIDS prevalence in countries with low-level and concentrated epidemics such as Japan. We then briefly discuss how modeling outputs are going to be used by the other package, Spectrum Projection Package.

Methods

The Workbook was developed in Excel™ and is composed of Point-Prevalence and Epidemic Curve worksheets¹². Available information from Japanese residents was set to be entered into the model and then the Workbook provides an estimate of HIV prevalence and disease burden. We aimed to use Workbook in order to make estimates for various regions in Japan, generate a national epidemic curve, and generate estimates of adult prevalence that can be imported into Spectrum to make HIV/AIDS estimates of the number of adults and children living with HIV, HIV incidence and mortality.

In this method, the estimate of prevalence calculated in Workbook will be the sum of the number of adults living with HIV/AIDS in higher risk behavior groups, such as injecting drug users (IDU), men who have sex with men (MSM), female sex workers (FSWs), and that of lower risk behavior groups (Refer to the following graph).

Prevalence Worksheet Populations at Higher Risk (PHR)

F43	A	B	C	D	E	F	G	H	I	J	K	L	M			
1	Region adult (15-49) population:															
2	Please choose method used to estimate population of lower risk (PLR):															
3	Method used to calculate number of low risk infections:															
4	Method A: Partners of high risk:															
5	Method B: HIV prevalence multiplied by low risk women:															
6	Method C: HIV prevalence multiplied by low risk men:															
7	1. Populations at higher risk (PHR)															
8	Name of higher risk population groups															
9	Population Size Estimate		HIV prevalence Estimate (%)		Estimates of adults living with HIV/AIDS				Female statistics							
10	Low estimate high estimate		Low High		Low (Low Population x Low Prevalence)		High (High Population x High Prevalence)		Low (Low Population x Low Prevalence)		High (High Population x High Prevalence)		Average number of adults living with HIV	Percent (%) female in risk group	Number of women infected	Percent (%) of infective who are women
11																
12																
13																
14																
15																
16																
17																
18																
19																
20	2. Populations at lower risk (PLR) that are not already included in PHR															
21	Method A: Partners of high risk populations															
22	Population Size Estimate		HIV prevalence Estimate (%)		Estimates of adults living with HIV/AIDS				Female statistics							
23	Low estimate high estimate		Low High		Low (Low Population x Low Prevalence)		High (High Population x High Prevalence)		Low (Low Population x Low Prevalence)		High (High Population x High Prevalence)		Average number of adults living with HIV	Percent (%) female in risk group	Number of women infected	Percent (%) of infective who are women
24																
25																
26																
27																
28																
29																
30																

2007 en

14

In this report, only modeling exercises for estimation of point prevalence and projection scenario for HIV epidemic among Japanese MSM residing in Japan are presented.

HIV Point Prevalence among Japanese MSM

The first decision was how many geographically distinct epidemics and estimates is to be made. We decided to define seven regions in Japan based on the categorization of the available data in the HIV/AIDS surveillance report provided by the Ministry of Health, Labor and Welfare of Japan ⁵. Accordingly, we have considered the seven regions of Hokkaido-Tōhoku, Kantō, Chūbō-Tōkai, Hokuriku, Kinki, Chūgoku-Shikoku, and Kyushu-Okinawa for data input.

In the next step, we have investigated population size estimates and prevalence of HIV infection among Japanese MSM. As for any other hidden population in every country, population size estimates are difficult to make accurately. Therefore, for best results, we have used a minimum and maximum value for the size of Japanese MSM population to reflect the uncertainty around estimates.

For the population size of the Japanese MSM, we assumed that 1-3% of the adult male population in Japan could have had a history of having sex with another male. In a national sexual questionnaire survey in Japan in 1999 (n=3562), it was found that about 1% of sexually active men reported having had sex with a same gender sexual partner ¹³. As about 30% of samples did not participate in the survey and some of the respondents may

have not expressed their same gender sexual behavior because of social desirability responding, we considered 1% of the sexually active men to be MSM as the lowest possible proportion in this model. We considered 3% as the highest population size of MSM because in the previous semi-nationwide survey among middle school, high school and university male students in 1994 (n=2440), about 3% reported “sexual contact” with other men which may have included contact other than sexual intercourse ¹⁴.

Available data on the prevalence of HIV infection among Japanese MSM are scattered and limited to those from voluntary counseling and testing centers or from testing events in major urban cities. Though these data are alarming on their own, they may bias the actual prevalence of HIV infection among MSM population as those confirmed HIV positive people will probably not return to the HIV testing centers or voluntarily attend an HIV testing event. However, in 2003 and 2005, two cross-sectional internet surveys were conducted and large numbers of Japanese MSM participated in these surveys and reported their risky behaviors as well as their HIV sero-status ¹⁵⁻¹⁷. Participants to these surveys were from different provinces in Japan and allowed us to get estimates of reported HIV sero-prevalence among MSM in the seven large regions of Japan. However, it is believed that MSM internet users have more risky behaviors and HIV prevalence is higher among them compared with non-users. Therefore, we have considered the reported sero-prevalence out of these surveys as the highest available prevalence and then adjusted them to estimate lower levels of HIV prevalence among MSM in Japan. For the adjustment, we compared self-reported HIV prevalence of a given region with available data in the same region but from other sources such as HIV testing centers or testing events.

Epidemic Curve for HIV infection among Japanese MSM

We have used the Epidemic Curve sheet to fit an epidemic curve to the data points so that we can assess the trend over time and to determine doubling time of the epidemic, rate of growth of the epidemic and the current prevalence level. However, prevalence data can be exported to Spectrum, to estimate the impact of HIV prevalence on incidence, mortality and other variables ¹².

Using HIV Point Prevalence Workbooks, we estimated the prevalence of HIV infection among Japanese MSM for the year 2005. In this regard, we have calculated the annual increase rate in HIV reported cases from 1987 until 2005 and then estimated the prevalence of HIV backward starting from 2005 to 1987.

Results

HIV Point Prevalence among Japanese MSM

Using the HIV Point Prevalence Workbooks and considering the available data on the size of and HIV prevalence among MSM population in Japan, we estimated that there might be 16,649 adult Japanese MSM with HIV in the year 2005, which gives a prevalence of 2.96% considering the average size of adult MSM population to be 563,140. Though HIV prevalence in smaller provinces/regions is less than this average,

metropolitan areas in Tokyo as well as large urban cities such as Osaka and Nagoya may have higher HIV prevalence, in some areas exceeding 5%.

The following table shows the detailed information on each major region in Japan with estimated size of MSM population and estimated HIV sero-prevalence among them:

Region	Adult male population (15-49 y)	Estimated size of MSM population	Estimated HIV prevalence among MSM (%)	Average number of adult MSM living with HIV
Hokkaido-Tōhoku	3,186,000	31,860 ~ 95,580	0.80 ~ 3.21	1,278
Kantō	11,061,000	110,610 ~ 331,830	1.59 ~ 6.34	8,772
Chubu-Tokai	3,342,000	33,420 ~ 100,260	1.36 ~ 5.43	2,268
Hokuriku	643,000	6,430 ~ 19,290	0.58 ~ 2.31	186
Kinki	4,489,000	44,890 ~ 134,670	1.14 ~ 4.55	2,555
Chugoku-Shikoku	2,349,000	23,490 ~ 70,470	0.96 ~ 3.85	1,129
Kyushu-Okinawa	3,087,000	30,870 ~ 92,610	0.30 ~ 1.20	461
Total	28,157,000	281,570 ~ 844,710	1.18 ~ 4.73 (Average = 2.96)	16,649

Epidemic Curve for HIV infection among Japanese MSM

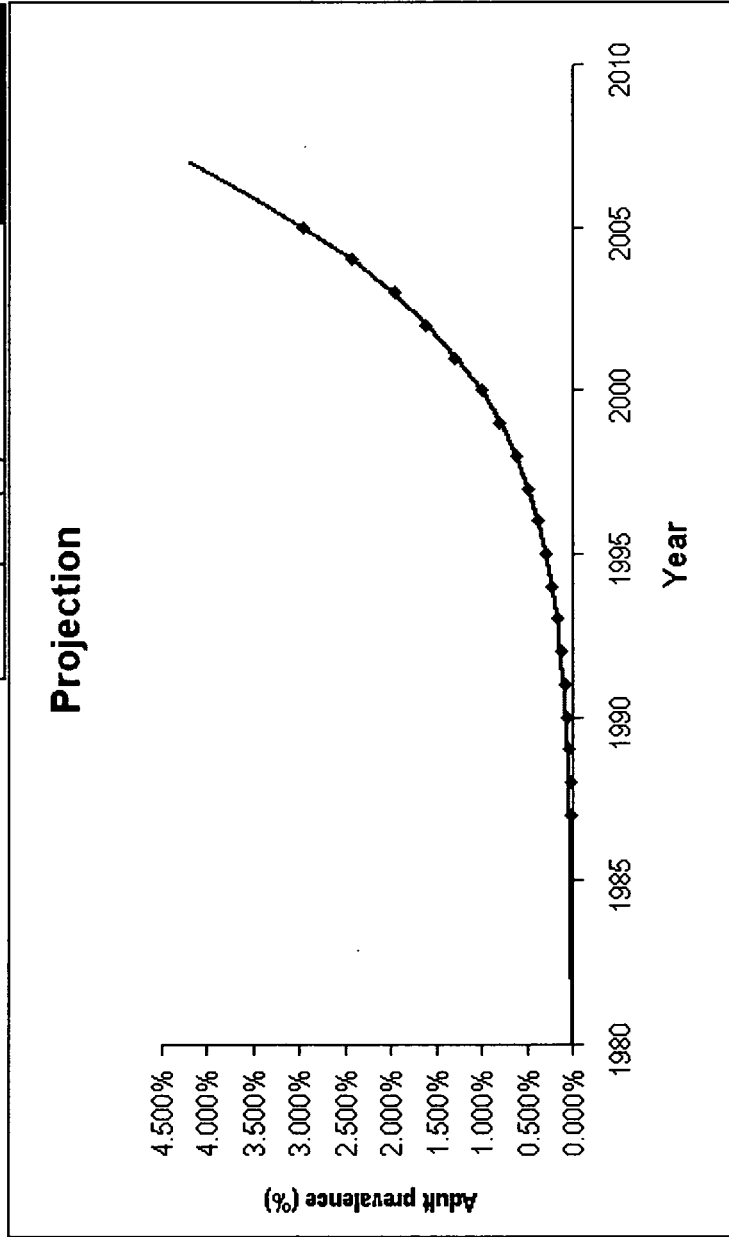
Based on the Point Prevalence Workbooks, we estimated that HIV prevalence should be around 2.96% among Japanese MSM for the year 2005. We then adjusted past years HIV prevalence among Japanese MSM based on the increase rate of HIV reported cases documented in the HIV/AIDS Surveillance report. Then we ran the model and tried to change the parameters in order to obtain the best fit to the available data (Fig.1). To perform curve fitting, we have used Excel™ Solver which enables to vary a set of parameters to produce a desired outcome. In this workbook, Solver allows us to obtain the best fitting curve to the data points by minimizing the Sum of Squares (SS). In order to ensure that the parameter values fall within acceptable ranges, constraints have been added. The SS is an additional logistic parameter and is used as a diagnostic. The SS provides a measure for determining how efficiently the three parameters are estimating a reasonable curve; the closer SS is to 0.00, the better. In our modeling exercise, SS was 0.00000048. As it is shown in the projection, based on the available data and our adjustment for this modeling exercise, it is expected that HIV prevalence among MSM will continue to rise to some levels higher than 11% where it might level off. However, as will be discussed later on in this report, the leveling off of a prevalence curve does not necessarily mean a decreasing incidence of HIV among Japanese MSM.

Figure 1. Projection of HIV epidemic among Japanese MSM from 1987 to 2005

Country: [Redacted]

Select model: Single logistic Double logistic

Single logistic model	Logistic parameters	
	Time epidemic reaches half peak (t)	2009.00
	Prevalence plateau level (a)	[Redacted]
	Rate of increase (alpha)	[Redacted]
Sum of squares (SS)		



Year	HIV prevalence	Source
1980		
1981		
1982		
1983		
1984		
1985		
1986		
1987	0.02220%	Adjusted based on Surveillance
1988	0.02990%	Adjusted based on Surveillance
1989	0.05210%	Adjusted based on Surveillance
1990	0.06770%	Adjusted based on Surveillance
1991	0.08540%	Adjusted based on Surveillance
1992	0.12310%	Adjusted based on Surveillance
1993	0.16520%	Adjusted based on Surveillance
1994	0.23510%	Adjusted based on Surveillance
1995	0.29500%	Adjusted based on Surveillance
1996	0.38590%	Adjusted based on Surveillance
1997	0.49350%	Adjusted based on Surveillance
1998	0.61110%	Adjusted based on Surveillance
1999	0.80740%	Adjusted based on Surveillance
2000	1.00030%	Adjusted based on Surveillance
2001	1.30870%	Adjusted based on Surveillance
2002	1.61470%	Adjusted based on Surveillance
2003	1.95850%	Adjusted based on Surveillance
2004	2.42660%	Adjusted based on Surveillance
2005	2.96000%	Adjusted based on Surveillance
2006		
2007		

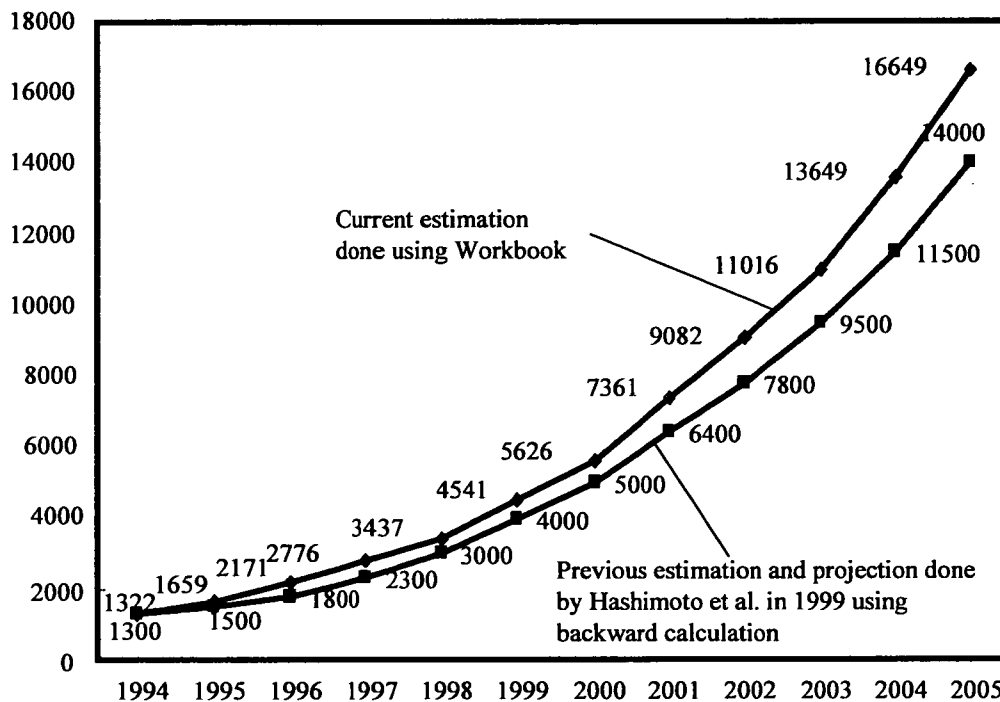
UNAIDS Workbook

Discussion

It is the first time that a standardized model suggested by the UNAIDS and WHO is used for estimation and projection of the HIV epidemic in Japan. This work then can be helpful not only for health policy makers in Japan but also may help to get a better global estimate on HIV/AIDS by the UNAIDS and WHO. It could also be helpful to compare the estimated figures from Japan and those of other developed countries or even neighboring countries whose epidemic can impact the HIV epidemic in Japan as well.

Through this preliminary work, we have estimated that HIV prevalence could be around 2.96% among Japanese MSM in 2005 and that the epidemic is projected to be increasing. Though the model shows that the HIV prevalence can level off at 11%, it does not necessarily mean that that epidemic among Japanese MSM will be under control without comprehensive interventions.

Figure 2. Comparison between the previous estimation and projection by Hashimoto et al. and our estimation done using Workbook



Other modelers previously developed some good estimates for the HIV epidemic in Japan¹⁸. One of the well-known estimations has been done by Hashimoto *et al*¹⁹ who applied back-calculation using the number of AIDS cases reported to the surveillance in Japan. Interestingly, as shown in Fig.2, the estimation and projection of HIV epidemic by the previous modeling exercises are very close to what we have developed

using a standardized method (Workbooks) which is also used in every country for HIV estimation and projection.

Though we have considered this modeling exercise for Japanese MSM, we are proceeding to estimate the number of infected people with HIV among IDUs, FSW, as well as people with lower risk behaviors. This can yield a national HIV prevalence among Japanese adults that can also be applied for further modeling using Spectrum Projection Package which can then project the age specific demographic impact of HIV and AIDS ^{6,7,10}.

The primary weakness of this estimation is the quality of data available when making the estimate. Though more data are becoming available among Japanese MSM, they are obtained among convenience samples and not systematically. Scarcity of reliable data is more evident among other target populations of HIV infection in Japan where community-based surveillance programs are yet to be developed.

Though we have mainly focused on the Japanese MSM, the Workbooks, in general, has the drawback that it does not explicitly deal with interactions of groups. This approach to making an estimate or building a future scenario does not capture the dynamics of interactions of the multiple epidemics in various sub-populations which make up a national HIV epidemic ⁹.

Another major limitation of this approach is that the curve fitting approach for the epidemics in each of the groups at higher risk cannot capture real epidemic curves that over time may have multiple variation points. The approach used in the workbook limits an epidemic curve that asymptotically approaches a saturation prevalence level ⁹.

Conclusion

We have estimated that HIV prevalence could be around 2.96% among Japanese MSM in 2005 and that the epidemic is projected to be increasing in the following years. It is thereby crucial that enough resources be allocated to intervene on the course of the epidemic among MSM to control this infection among this population and prevent it from bridging to other populations at-risk of acquiring HIV infection.

Through this modeling exercise, we have noted that there is room for improvement in HIV surveillance programs among MSM as well as among other target populations. It is suggested that both behavioral and biological data be collected from these populations in a more systematic way in order to best track the changes