

Supplementary Table 1. Incidence rate of prostate cancer

Age, years	Non-component			1 or 2 components			≥3 components			Total		
	Prostate cancers	Person -years	Incidence rate <sup>*</sup>	Prostate cancers	Person -years	Incidence rate <sup>*</sup>	Prostate cancers	Person -years	Incidence rate <sup>*</sup>	Prostate cancers	Person -years	Incidence rate <sup>*</sup>
51	47	141,423	33.23	123	442,610	27.79	49	196,022	25.00	219	780,055	28.07
52	78	200,508	38.90	242	640,472	37.78	98	293,683	33.37	418	1,134,663	36.84
53	61	117,515	51.91	179	389,015	46.01	92	180,811	50.88	332	687,341	48.30
54	103	184,222	55.91	322	625,172	51.51	165	298,907	55.20	590	1,108,301	53.23
55	55	95,526	57.58	194	337,702	57.45	89	162,480	54.78	338	595,708	56.74
56	99	131,820	75.10	399	474,926	84.01	165	233,274	70.73	663	840,020	78.93
57	79	82,158	96.16	237	305,829	77.49	131	149,492	87.63	447	537,479	83.17
58	124	110,768	111.95	434	405,111	107.13	205	195,262	104.99	763	711,141	107.29
59	71	58,668	121.02	267	224,330	119.02	129	107,676	119.80	467	390,674	119.54
60	171	120,534	141.87	686	449,860	152.49	333	219,623	151.62	1,190	790,017	150.63
61	98	53,982	181.54	316	209,437	150.88	134	101,348	132.22	548	364,767	150.23
62	204	119,963	170.05	903	460,166	196.23	400	226,286	176.77	1,507	806,415	186.88
63	75	39,406	190.33	320	161,279	198.41	168	77,836	215.84	563	278,521	202.14
64	212	84,409	251.16	787	333,822	235.75	369	159,859	230.83	1,368	578,090	236.64
65	78	33,884	230.20	346	141,678	244.22	165	66,935	246.51	589	242,497	242.89
66	281	98,057	286.57	1,068	398,428	268.05	484	187,655	257.92	1,833	684,140	267.93
67	94	25,717	365.52	250	104,639	238.92	131	48,114	272.27	475	178,470	266.15
68	268	85,569	313.20	1,144	352,059	324.95	544	165,933	327.84	1,956	603,561	324.08
69	67	22,914	292.40	274	93,100	294.31	129	45,529	283.34	470	161,543	290.94
70	244	72,286	337.55	1,038	297,224	349.23	480	138,904	345.56	1,762	508,414	346.57
71	62	17,869	346.97	266	74,089	359.03	118	33,332	354.01	446	125,290	355.97
72	191	54,590	349.88	839	228,494	367.19	398	104,930	379.30	1,428	388,014	368.03
73	54	11,891	454.12	183	52,674	347.42	72	22,949	313.74	309	87,514	353.09
74	148	43,796	337.93	746	183,013	407.62	311	79,627	390.57	1,205	306,436	393.23
75	366	96,859	377.87	1414	398,573	354.77	605	156,198	387.33	2,385	651,630	366.01

<sup>\*</sup>Incidence rate is expressed as the number of prostate cancer cases per 100,000 person-years of the follow-up period.

**Supplementary Table 2** Sensitivity and specificity for predicting prostate cancer using different age cutoffs

Age, years	Non-component			1 or 2 components			≥3 components			Total		
	Sensitivity	Specificity	Youden's index <sup>*</sup>	Sensitivity	Specificity	Youden's index <sup>*</sup>	Sensitivity	Specificity	Youden's index <sup>*</sup>	Sensitivity	Specificity	Youden's index <sup>*</sup>
51	0.98317	0.09434	0.07751	0.98677	0.07823	0.06500	0.98644	0.07489	0.06133	0.98614	0.079868	0.066008
52	0.96929	0.15406	0.12335	0.97742	0.12951	0.10693	0.97833	0.12358	0.10191	0.97644	0.13177	0.10821
53	0.94627	0.23881	0.18508	0.95901	0.20378	0.16279	0.96212	0.1966	0.15872	0.95793	0.20735	0.16528
54	0.92826	0.28847	0.21673	0.9454	0.2489	0.1943	0.94691	0.24153	0.18844	0.94323	0.25313	0.19636
55	0.89784	0.36649	0.26433	0.92092	0.32143	0.24235	0.91962	0.3159	0.23552	0.91711	0.32702	0.24413
56	0.88161	0.40693	0.28854	0.90617	0.36067	0.26684	0.9049	0.35638	0.26128	0.90214	0.36679	0.26893
57	0.85238	0.46278	0.31516	0.87583	0.41586	0.29169	0.87761	0.41455	0.29216	0.87279	0.42288	0.29567
58	0.82905	0.4976	0.32665	0.85781	0.45145	0.30926	0.85594	0.45179	0.30773	0.85299	0.45879	0.31178
59	0.79244	0.54456	0.337	0.8248	0.49861	0.32341	0.82203	0.5005	0.32253	0.81921	0.50633	0.32554
60	0.77148	0.56945	0.34093	0.8045	0.52477	0.32927	0.80069	0.52742	0.32811	0.79853	0.5325	0.33103
61	0.72099	0.6206	0.34159	0.75234	0.57715	0.32949	0.74562	0.58223	0.32785	0.74584	0.58534	0.33118
62	0.69206	0.64345	0.33551	0.72831	0.60156	0.32987	0.72345	0.6076	0.33105	0.72157	0.60976	0.33133
63	0.63183	0.69441	0.32624	0.65965	0.6552	0.31485	0.65729	0.66416	0.32145	0.65484	0.66376	0.3186
64	0.60968	0.71119	0.32087	0.63531	0.67406	0.30937	0.62951	0.68357	0.31308	0.62991	0.68244	0.31235
65	0.54709	0.74702	0.29411	0.57547	0.71312	0.28859	0.56848	0.72371	0.29219	0.56934	0.72129	0.29063
66	0.52406	0.76149	0.28555	0.54916	0.72978	0.27894	0.54118	0.74056	0.28174	0.54326	0.73766	0.28092
67	0.4411	0.80355	0.24465	0.46795	0.77674	0.24469	0.46113	0.78809	0.24922	0.4621	0.784	0.2461
68	0.41335	0.81461	0.22796	0.44894	0.78919	0.23813	0.43946	0.80031	0.23977	0.44106	0.79617	0.23723
69	0.33422	0.85157	0.18579	0.36195	0.83097	0.19292	0.34949	0.84266	0.19215	0.35445	0.83734	0.19179
70	0.31444	0.86159	0.17603	0.34111	0.84219	0.1833	0.32815	0.8544	0.18255	0.33364	0.84851	0.18215
71	0.2424	0.8934	0.1358	0.26219	0.87802	0.14021	0.24876	0.89039	0.13915	0.25562	0.88376	0.13938
72	0.22409	0.90129	0.12538	0.24196	0.88708	0.12904	0.22924	0.89912	0.12836	0.23587	0.89255	0.12842
73	0.1677	0.92565	0.09335	0.17816	0.91519	0.09335	0.16341	0.92675	0.09016	0.17264	0.91993	0.09257
74	0.15176	0.93099	0.08275	0.16425	0.92176	0.08601	0.15151	0.93291	0.08442	0.15896	0.92621	0.08517
75	0.10806	0.95107	0.05913	0.10752	0.94472	0.05224	0.10007	0.95434	0.05441	0.10561	0.9483	0.05391

\*Youden's index = Sensitivity + Specificity - 1