

Tooth loss, dental prosthesis use, and cause-specific mortality in older Japanese adults: a 7-year cohort study

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Supplementary Table S1. Baseline characteristics of participants by number of remaining teeth after multiple imputation.

	All participants (<i>n</i> = 43,774)		Number of remaining teeth					
	<i>n</i>	%	≥20 teeth (<i>n</i> = 15,555)	%	10–19 teeth (<i>n</i> = 11,441)	%	0–9 teeth (<i>n</i> = 16,778)	%
Sex								
Men	20,493	46.8	7,471	48.0	5,412	47.3	7,609	45.4
Women	23,281	53.2	8,084	52.0	6,029	52.7	9,169	54.6
Age (years)								
65–69	13,006	29.7	6,044	38.9	3,805	33.3	3,157	18.8
70–74	13,098	29.9	5,159	33.2	3,569	31.2	4,370	26.0
75–79	9,748	22.3	2,872	18.5	2,456	21.5	4,420	26.3
80–84	5,462	12.5	1,154	7.4	1,213	10.6	3,096	18.5
≥85	2,460	5.6	325	2.1	398	3.5	1,737	10.4
Income (million JPY)								
<2.00	17,910	40.9	6,528	42.0	5,687	49.7	9,772	58.2
2.00–3.99	14,391	32.9	6,950	44.7	4,539	39.7	5,568	33.2
≥4.00	4,065	9.3	2,077	13.4	1,216	10.6	1,439	8.6
Education (years)								
≤9	19,401	44.3	5,618	36.1	4,994	43.7	9,308	55.5
10–12	15,338	35.0	6,221	40.0	4,284	37.4	5,173	30.8
≥13	8,021	18.3	3,715	23.9	2,163	18.9	2,297	13.7
Comorbidities								
0	109	0.2	51	0.3	36	0.3	58	0.3
1	14,111	32.2	7,059	45.4	5,009	43.8	6,766	40.3
≥2	19,228	43.9	8,444	54.3	6,396	55.9	9,954	59.3
Smoking status								
Never	23,390	53.4	9,801	63.0	6,778	59.2	9,661	57.6
Former	11,731	26.8	4,513	29.0	3,360	29.4	4,828	28.8
Current	4,481	10.2	1,240	8.0	1,304	11.4	2,289	13.6
Alcohol consumption								
Never	24,813	56.7	8,654	55.6	6,684	58.4	11,036	65.8
Past	1,435	3.3	464	3.0	418	3.7	637	3.8
Current	14,996	34.3	6,437	41.4	4,340	37.9	5,105	30.4
Marital status								
With a spouse	31,131	71.1	12,203	78.4	8,462	74.0	11,077	66.0
Without a spouse	11,711	26.8	3,352	21.6	2,979	26.0	5,701	34.0
Walking time (min/day)								
≥60	12,925	29.5	5,384	34.6	3,623	31.7	4,692	28.0
30–59	14,604	33.4	5,807	37.3	4,170	36.4	5,555	33.1
<30	13,626	31.1	4,363	28.1	3,648	31.9	6,531	38.9
Body mass index								
<18.5	3,047	7.0	963	6.2	734	6.4	1,483	8.8
18.5–29.9	38,490	87.9	14,314	92.0	10,498	91.8	14,905	88.8
≥30.0	855	2.0	278	1.8	209	1.8	390	2.3

Supplementary Table S2. Baseline characteristics of participants by dental status before multiple imputation.

	Dental status													
	All participants (n = 43,774)		≥20 teeth (n = 15,067)		10–19 teeth with dental protheses (n = 6,542)		10–19 teeth without dental protheses (n = 3,689)		0–9 teeth with dental protheses (n = 10,577)		0–9 teeth without dental protheses (n = 4,037)		Missing	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Sex														
Men	20,493	46.8	7,263	48.2	3,251	49.7	1,721	46.7	4,896	46.3	1,916	47.5	1,446	37.4
Women	23,281	53.2	7,804	51.8	3,291	50.3	1,968	53.3	5,681	53.7	2,121	52.5	2,416	62.6
Age (years)														
65–69	13,006	29.7	5,880	39.0	2,298	35.1	1,247	33.8	2,157	20.4	734	18.2	690	17.9
70–74	13,098	29.9	4,998	33.2	2,037	31.1	1,180	32.0	2,793	26.4	1,073	26.6	1,017	26.3
75–79	9,748	22.3	2,770	18.4	1,340	20.5	772	20.9	2,717	25.7	1,079	26.7	1,070	27.7
80–84	5,462	12.5	1,107	7.3	641	9.8	379	10.3	1,868	17.7	722	17.9	745	19.3
≥85	2,460	5.6	312	2.1	226	3.5	111	3.0	1,042	9.9	429	10.6	340	8.8
Income (million JPY)														
<2.00	17,910	40.9	5,438	36.1	2,572	39.3	1,642	44.5	4,612	43.6	2,037	50.5	1,609	41.7
2.00–3.99	14,391	32.9	5,944	39.5	2,426	37.1	1,155	31.3	3,171	30.0	857	21.2	838	21.7
≥4.00	4,065	9.3	1,776	11.8	671	10.3	281	7.6	871	8.2	222	5.5	244	6.3
Missing	7,408	16.9	1,909	12.7	873	13.3	611	16.6	1,923	18.2	921	22.8	1,171	30.3
Education (years)														
≤9	19,401	44.3	5,347	35.5	2,530	38.7	1,714	46.5	5,217	49.3	2,501	62.0	2,092	54.2
10–12	15,338	35.0	5,936	39.4	2,527	38.6	1,331	36.1	3,469	32.8	1,032	25.6	1,043	27.0
≥13	8,021	18.3	3,524	23.4	1,396	21.3	563	15.3	1,638	15.5	400	9.9	500	12.9
Missing	1,014	2.3	260	1.7	89	1.4	81	2.2	253	2.4	104	2.6	227	5.9
Comorbidities														
0	109	0.2	36	0.2	10	0.2	8	0.2	26	0.2	12	0.3	17	0.4
1	14,111	32.2	5,036	33.4	2,121	32.4	1,212	32.9	3,263	30.8	1,243	30.8	1,236	32.0
≥2	19,228	43.9	6,198	41.1	2,856	43.7	1,516	41.1	5,053	47.8	1,783	44.2	1,822	47.2
Missing	10,326	23.6	3,797	25.2	1,555	23.8	953	25.8	2,235	21.1	999	24.7	787	20.4
Smoking status														
Never	23,390	53.4	8,801	58.4	3,441	52.6	2,053	55.7	5,347	50.6	2,007	49.7	1,741	45.1
Former	11,731	26.8	4,204	27.9	1,985	30.3	940	25.5	2,935	27.7	1,045	25.9	622	16.1
Current	4,481	10.2	1,145	7.6	707	10.8	423	11.5	1,326	12.5	588	14.6	292	7.6
Missing	4,172	9.5	917	6.1	409	6.3	273	7.4	969	9.2	397	9.8	1,207	31.3
Alcohol consumption														
Never	24,813	56.7	8,067	53.5	3,523	53.9	2,139	58.0	6,480	61.3	2,561	63.4	2,043	52.9
Former	1,435	3.3	433	2.9	231	3.5	134	3.6	409	3.9	137	3.4	91	2.4
Current	14,996	34.3	6,060	40.2	2,551	39.0	1,294	35.1	3,186	30.1	1,159	28.7	746	19.3
Missing	2,530	5.8	507	3.4	237	3.6	122	3.3	502	4.7	180	4.5	982	25.4
Marital status														
With a spouse	31,131	71.1	11,687	77.6	4,914	75.1	2,628	71.2	6,941	65.6	2,598	64.4	2,363	61.2
Without a spouse	11,711	26.8	3,177	21.1	1,544	23.6	983	26.6	3,396	32.1	1,304	32.3	1,307	33.8
Missing	932	2.1	203	1.3	84	1.3	78	2.1	240	2.3	135	3.3	192	5.0
Walking time (min/day)														
≥60	12,925	29.5	4,961	32.9	2,070	31.6	1,029	27.9	2,836	26.8	1,046	25.9	983	25.5
30–59	14,604	33.4	5,363	35.6	2,296	35.1	1,261	34.2	3,343	31.6	1,203	29.8	1,138	29.5
<30	13,626	31.1	4,007	26.6	1,808	27.6	1,202	32.6	3,741	35.4	1,542	38.2	1,326	34.3
Missing	2,619	6.0	736	4.9	368	5.6	197	5.3	657	6.2	246	6.1	415	10.7
Body mass index														
<18.5	3,047	7.0	904	6.0	396	6.1	224	6.1	878	8.3	319	7.9	326	8.4
18.5–29.9	38,490	87.9	13,666	90.7	5,896	90.1	3,296	89.3	9,040	85.5	3,431	85.0	3,161	81.8
≥30.0	855	2.0	266	1.8	110	1.7	73	2.0	223	2.1	94	2.3	89	2.3
Missing	1,382	3.2	231	1.5	140	2.1	96	2.6	436	4.1	193	4.8	286	7.4

Supplementary Table S3. Baseline characteristics of participants by number of remaining teeth before multiple imputation.

	All participants (<i>n</i> = 43,774)		≥ 20 teeth (<i>n</i> = 15,067)		Number of remaining teeth				Missing	
	<i>n</i>	%	<i>n</i>	%	10–19 teeth (<i>n</i> = 11,058)	%	0–9 teeth (<i>n</i> = 16,142)	%		
Sex										
Men	20,493	46.8	7,263	48.2	5,252	47.5	7,363	45.6	615	40.8
Women	23,281	53.2	7,804	51.8	5,806	52.5	8,779	54.4	892	59.2
Age (years)										
65–69	13,006	29.7	5,880	39.0	3,716	33.6	3,066	19.0	344	22.8
70–74	13,098	29.9	4,998	33.2	3,454	31.2	4,224	26.2	422	28.0
75–79	9,748	22.3	2,770	18.4	2,359	21.3	4,238	26.3	381	25.3
80–84	5,462	12.5	1,107	7.3	1,152	10.4	2,949	18.3	254	16.9
≥ 85	2,460	5.6	312	2.1	377	3.4	1,665	10.3	106	7.0
Income (million JPY)										
<2.00	17,910	40.9	5,438	36.1	4,561	41.2	7,348	45.5	563	37.4
2.00–3.99	14,391	32.9	5,944	39.5	3,746	33.9	4,280	26.5	421	27.9
≥ 4.00	4,065	9.3	1,776	11.8	1,006	9.1	1,149	7.1	134	8.9
Missing	7,408	16.9	1,909	12.7	1,745	15.8	3,365	20.8	389	25.8
Education (years)										
≤ 9	19,401	44.3	5,347	35.5	4,723	42.7	8,688	53.8	643	42.7
10–12	15,338	35.0	5,936	39.4	4,077	36.9	4,852	30.1	473	31.4
≥ 13	8,021	18.3	3,524	23.4	2,048	18.5	2,151	13.3	298	19.8
Missing	1,014	2.3	260	1.7	210	1.9	451	2.8	93	6.2
Comorbidities										
0	109	0.2	36	0.2	24	0.2	43	0.3	6	0.4
1	14,111	32.2	5,036	33.4	3,606	32.6	4,986	30.9	483	32.1
≥ 2	19,228	43.9	6,198	41.1	4,764	43.1	7,592	47.0	674	44.7
Missing	10,326	23.6	3,797	25.2	2,664	24.1	3,521	21.8	344	22.8
Smoking status										
Never	23,390	53.4	8,801	58.4	5,985	54.1	8,165	50.6	439	29.1
Former	11,731	26.8	4,204	27.9	3,085	27.9	4,309	26.7	133	8.8
Current	4,481	10.2	1,145	7.6	1,203	10.9	2,069	12.8	64	4.2
Missing	4,172	9.5	917	6.1	785	7.1	1,599	9.9	871	57.8
Alcohol consumption										
Never	24,813	56.7	8,067	53.5	6,194	56.0	10,022	62.1	530	35.2
Past	1,435	3.3	433	2.9	395	3.6	597	3.7	10	0.7
Current	14,996	34.3	6,060	40.2	4,064	36.8	4,715	29.2	157	10.4
Missing	2,530	5.8	507	3.4	405	3.7	808	5.0	810	53.7
Marital status										
With a spouse	31,131	71.1	11,687	77.6	8,050	72.8	10,394	64.4	1,000	66.4
Without a spouse	11,711	26.8	3,177	21.1	2,802	25.3	5,283	32.7	449	29.8
Missing	932	2.1	203	1.3	206	1.9	465	2.9	58	3.8
Walking time (min/day)										
≥ 60	12,925	29.5	4,961	32.9	3,305	29.9	4,254	26.4	405	26.9
30–59	14,604	33.4	5,363	35.6	3,810	34.5	4,980	30.9	451	29.9
<30	13,626	31.1	4,007	26.6	3,304	29.9	5,850	36.2	465	30.9
Missing	2,619	6.0	736	4.9	639	5.8	1,058	6.6	186	12.3
Body mass index										
<18.5	3,047	7.0	904	6.0	675	6.1	1,331	8.2	137	9.1
18.5–29.9	38,490	87.9	13,666	90.7	9,905	89.6	13,682	84.8	1,237	82.1
≥ 30.0	855	2.0	266	1.8	196	1.8	363	2.2	30	2.0
Missing	1,382	3.2	231	1.5	282	2.6	766	4.7	103	6.8

Supplementary Table S4. All-cause and cause-specific mortality rates by number of remaining teeth (n = 43,774).

Mortality rate (per 1,000 person-years)	Number of remaining teeth		
	≥20 teeth (n = 15,555)	10–19 teeth (n = 11,441)	0–9 teeth (n = 16,778)
All-cause mortality	13.0	18.2	29.9
Cause-specific mortality			
Cancer	6.2	7.9	11.6
Cardiovascular diseases	2.8	4.1	7.1
Respiratory diseases	1.5	2.4	4.6
Infectious and parasitic diseases	0.32	0.32	0.68
Endocrine, nutritional, and metabolic diseases	0.13	0.19	0.30
Mental and behavioral disorders	0.04	0.12	0.13
Nervous diseases	0.24	0.26	0.48
Digestive diseases	0.31	0.51	1.0
Genitourinary diseases	0.21	0.34	0.56
Injury, poisoning, and external causes	0.62	0.94	1.5

Supplementary Table S5. Associations between the number of remaining teeth and all-cause and cause-specific mortality ($n = 43,774$).

	Number of remaining teeth			
	Ref. HR = 1: ≥ 20 teeth ($n = 15,555$)			
	10–19 teeth ($n = 11,441$)		0–9 teeth ($n = 16,778$)	
	Crude model HR (95% CI)	Adjusted model ^a HR (95% CI)	Crude model HR (95% CI)	Adjusted model ^a HR (95% CI)
All-cause mortality	1.39 (1.29, 1.51)***	1.18 (1.09, 1.28)***	2.30 (2.16, 2.46)***	1.39 (1.30, 1.49)***
Cause-specific mortality				
Cancer	1.27 (1.13, 1.43)***	1.12 (1.00, 1.26)*	1.86 (1.69, 2.05)***	1.31 (1.18, 1.45)***
Cardiovascular diseases	1.45 (1.23, 1.72)***	1.20 (1.02, 1.42)*	2.51 (2.18, 2.89)***	1.37 (1.18, 1.59)***
Respiratory diseases	1.66 (1.33, 2.08)***	1.35 (1.08, 1.70)**	3.16 (2.61, 3.82)***	1.65 (1.35, 2.02)***
Infectious and parasitic diseases	1.03 (0.60, 1.77)	0.86 (0.49, 1.48)	2.19 (1.42, 3.35)***	1.21 (0.77, 1.91)
Endocrine, nutritional, and metabolic diseases	1.44 (0.67, 3.10)	1.16 (0.53, 2.50)	2.31 (1.21, 4.43)*	1.21 (0.61, 2.41)
Mental and behavioral disorders	2.98 (0.92, 9.65)	2.45 (0.75, 8.03)	3.31 (1.07, 10.19)*	1.92 (0.59, 6.21)
Nervous diseases	1.09 (0.59, 2.02)	0.95 (0.51, 1.78)	2.07 (1.26, 3.39)**	1.32 (0.77, 2.24)
Digestive diseases	1.66 (1.02, 2.69)*	1.38 (0.85, 2.25)	3.35 (2.23, 5.04)***	2.01 (1.30, 3.08)**
Genitourinary diseases	1.58 (0.88, 2.84)	1.24 (0.69, 2.23)	2.67 (1.62, 4.42)***	1.21 (0.71, 2.07)
Injury, poisoning, and external causes	1.53 (1.08, 2.17)*	1.34 (0.95, 1.91)	2.43 (1.80, 3.28)***	1.62 (1.18, 2.24)**

Abbreviations: HR, hazard ratio; 95% CI, 95% confidence interval; Ref, reference.

^a Adjusted for sex, age, equivalent income, education, comorbidities, smoking status, alcohol consumption, marital status, walking time, and body mass index.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Supplementary Table S6. Association between number of remaining teeth and all-cause and cause-specific mortality in complete-case analyses ($n = 21,829$).

	Number of remaining teeth			
	Ref. HR = 1: ≥ 20 teeth ($n = 8,584$)			
	10–19 teeth ($n = 5,684$)		0–9 teeth ($n = 7,561$)	
	Crude model HR (95% CI)	Adjusted model ^a HR (95% CI)	Crude model HR (95% CI)	Adjusted model ^a HR (95% CI)
All-cause mortality	1.35 (1.22, 1.50)***	1.15 (1.03, 1.27)*	2.18 (2.00, 2.38)***	1.36 (1.24, 1.49)***
Cause, specific mortality				
Cancer	1.22 (1.05, 1.42)*	1.08 (0.92, 1.25)	1.77 (1.56, 2.02)***	1.28 (1.12, 1.47)**
Cardiovascular diseases	1.43 (1.15, 1.78)**	1.19 (0.96, 1.49)	2.39 (1.98, 2.88)***	1.38 (1.13, 1.68)**
Respiratory diseases	1.49 (1.10, 2.01)**	1.18 (0.87, 1.60)*	3.05 (2.38, 3.92)***	1.52 (1.17, 1.98)**
Infectious and parasitic diseases	1.17 (0.57, 2.41)	0.95 (0.46, 1.97)	2.18 (1.21, 3.94)*	1.16 (0.62, 2.17)
Endocrine, nutritional, and metabolic diseases	1.84 (0.56, 6.02)	1.45 (0.44, 4.78)	4.81 (1.80, 12.81)**	2.41 (0.87, 6.68)
Mental and behavioral disorders	4.67 (0.94, 23.12)	3.83 (0.76, 19.31)	3.81 (0.77, 18.89)	2.35 (0.46, 12.16)
Nervous diseases	0.98 (0.42, 2.26)	0.90 (0.39, 2.09)	1.88 (0.96, 3.67)	1.39 (0.68, 2.84)
Digestive diseases	1.86 (1.00, 3.46)	1.50 (0.80, 2.81)	2.88 (1.67, 4.99)***	1.73 (0.98, 3.08)
Genitourinary diseases	1.41 (0.66, 3.01)	1.05 (0.49, 2.23)	2.46 (1.30, 4.65)**	1.03 (0.53, 2.02)
Injury, poisoning, and external causes	1.61 (1.00, 2.60)*	1.43 (0.89, 2.31)	2.21 (1.45, 3.37)***	1.59 (1.02, 2.48)*

Abbreviations: HR, hazard ratio; 95% CI, 95% confidence interval; Ref, reference.

^a Adjusted for sex, age, equivalent income, education, comorbidities, smoking status, alcohol consumption, marital status, walking time, and body mass index.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Supplementary Table S7. Associations between dental status and all-cause and cause-specific mortality in complete-case analyses ($n = 21,829$).

	Dental status							
	Ref. HR = 1: ≥ 20 teeth ($n = 8,584$)							
	10–19 teeth with dental prostheses ($n = 3,742$)		10–19 teeth without dental prostheses ($n = 1,942$)		0–9 teeth with dental prostheses ($n = 5,656$)		0–9 teeth without dental prostheses ($n = 1,905$)	
	Crude model HR (95% CI)	Adjusted model ^a HR (95% CI)	Crude model HR (95% CI)	Adjusted model ^a HR (95% CI)	Crude model HR (95% CI)	Adjusted model ^a HR (95% CI)	Crude model HR (95% CI)	Adjusted model ^a HR (95% CI)
All-cause mortality	1.31 (1.16, 1.47)***	1.11 (0.99, 1.25)	1.44 (1.25, 1.66)***	1.21 (1.05, 1.40)**	2.16 (1.97, 2.38)***	1.36 (1.23, 1.50)***	2.22 (1.96, 2.52)***	1.35 (1.19, 1.54)***
Cause-specific mortality								
Cancer	1.14 (0.95, 1.36)	1.00 (0.84, 1.20)	1.38 (1.12, 1.70)**	1.22 (0.99, 1.50)	1.78 (1.55, 2.04)***	1.30 (1.12, 1.50)***	1.75 (1.45, 2.13)***	1.25 (1.02, 1.53)*
Cardiovascular diseases	1.47 (1.15, 1.87)**	1.22 (0.96, 1.56)	1.37 (1.00, 1.87)	1.13 (0.83, 1.55)	2.44 (2.01, 2.97)***	1.42 (1.15, 1.74)**	2.24 (1.71, 2.92)***	1.26 (0.95, 1.67)
Respiratory diseases	1.43 (1.02, 2.01)*	1.16 (0.82, 1.63)	1.61 (1.07, 2.43)*	1.23 (0.82, 1.86)	2.92 (2.24, 3.79)***	1.48 (1.13, 1.96)**	3.47 (2.50, 4.80)***	1.64 (1.16, 2.30)**
Infectious and parasitic diseases	1.23 (0.55, 2.76)	0.99 (0.44, 2.24)	1.06 (0.36, 3.14)	0.87 (0.29, 2.61)	1.97 (1.04, 3.74)*	1.04 (0.53, 2.04)	2.80 (1.28, 6.11)*	1.51 (0.67, 3.43)
Endocrine, nutritional, and metabolic diseases	1.86 (0.50, 6.92)	1.51 (0.40, 5.66)	1.80 (0.35, 9.26)	1.35 (0.26, 7.01)	3.86 (1.36, 10.95)*	2.02 (0.69, 5.94)	7.64 (2.50, 23.35)***	3.49 (1.09, 11.15)*
Mental and behavioral disorders	4.79 (0.88, 26.15)	4.05 (0.73, 22.55)	4.44 (0.63, 31.52)	3.41 (0.47, 24.69)	4.24 (0.82, 21.86)	2.63 (0.49, 14.05)	2.53 (0.23, 27.91)	1.53 (0.13, 17.61)
Nervous diseases	0.83 (0.30, 2.30)	0.76 (0.27, 2.11)	1.26 (0.42, 3.84)*	1.19 (0.39, 3.63)	1.83 (0.89, 3.75)	1.37 (0.64, 2.91)	2.02 (0.78, 5.25)	1.47 (0.54, 3.99)
Digestive diseases	2.18 (1.13, 4.24)*	1.80 (0.92, 3.50)	1.23 (0.46, 3.31)	0.95 (0.35, 2.57)	3.25 (1.85, 5.71)***	1.98 (1.10, 3.56)*	1.81 (0.75, 4.33)	0.99 (0.00, 2.43)
Genitourinary diseases	0.99 (0.38, 2.58)	0.75 (0.29, 1.97)	2.22 (0.90, 5.51)	1.58 (0.64, 3.95)	1.93 (0.95, 3.92)	0.83 (0.40, 1.72)	4.02 (1.86, 8.68)***	1.66 (0.74, 3.72)
Injury, poisoning, and external causes	1.54 (0.90, 2.64)	1.37 (0.80, 2.36)	1.75 (0.92, 3.33)	1.56 (0.82, 2.98)	2.05 (1.30, 3.23)**	1.49 (0.93, 2.40)	2.68 (1.52, 4.71)**	1.89 (1.05, 3.41)*

Abbreviations: HR, hazard ratio; 95% CI, 95% confidence interval; Ref, reference.

^a Adjusted for sex, age, equivalent income, education, comorbidities, smoking status, alcohol consumption, marital status, walking time, and body mass index.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Supplementary Table S8. Adjusted hazard ratios for all-cause and cause-specific mortality associated with dental prosthesis use, stratified by number of remaining teeth ($n = 43,774$).

	Number of remaining teeth		
	≥20 teeth ($n = 15,555$) HR (95% CI) ^{a, b}	10–19 teeth ($n = 11,441$) HR (95% CI) ^{a, b}	0–9 teeth ($n = 16,778$) HR (95% CI) ^{a, b}
All-Cause Mortality	0.96 (0.85, 1.10)	0.95 (0.85, 1.07)	0.96 (0.88, 1.04)
Cause-Specific Mortality			
Cancer	0.98 (0.81, 1.19)	0.93 (0.78, 1.10)	0.98 (0.86, 1.12)
Cardiovascular diseases	0.90 (0.68, 1.19)	0.94 (0.72, 1.22)	1.01 (0.85, 1.20)
Respiratory diseases	1.23 (0.85, 1.78)	0.89 (0.64, 1.24)	0.92 (0.75, 1.14)
Infectious and parasitic diseases	0.43 (0.14, 1.27)	0.94 (0.38, 2.32)	0.66 (0.38, 1.14)
Endocrine, nutritional, and metabolic diseases	2.16 (0.66, 7.08)	1.02 (0.28, 3.71)	0.61 (0.29, 1.30)
Mental and behavioral disorders	0.99 (0.09, 10.95)	0.72 (0.19, 2.77)	1.48 (0.36, 6.15)
Nervous diseases	0.42 (0.12, 1.44)	1.12 (0.39, 3.22)	0.86 (0.44, 1.67)
Digestive diseases	1.58 (0.74, 3.39)	1.48 (0.71, 3.10)	1.92 (1.10, 3.38)*
Genitourinary diseases	0.73 (0.24, 2.23)	0.79 (0.34, 1.87)	0.61 (0.35, 1.07)
Injury, poisoning, and external causes	1.06 (0.59, 1.92)	1.16 (0.67, 2.00)	0.78 (0.54, 1.13)

Abbreviations: HR, hazard ratio; 95% CI, 95% confidence interval.

^a Adjusted for sex, age, equivalent income, education, comorbidities, smoking status, alcohol consumption, marital status, walking time, and body mass index.

^b Reference group: non-use of dental prosthesis (HR = 1).

* $p < 0.05$.