

Table S2. Characteristics of included papers.

Paper	Study name	Study population	Sample size	Follow-up period	Study methods	Exposure groups	Primary outcomes	Measures	Results
Åström <i>et al.</i> (2011) ²⁸	1942 Sweden birth cohort study	Sweden; Adults aged 50 years (at year 1992) from two counties of Sweden	n=4143 Male: 47.8% Female: 52.2%	15 years	- Involved 4 sweeps, at ages of 50, 55, 60 and 65. - Self-administered questionnaires. - Secondary data analysis.	Dental attendance at ages 50 & 65. - stable annual - annual - not annual (downward) - not annual - annual (upward) - stable not annual	OHRQoL using 8-item OIDP at 65 years old.	ORs	<u>OIDP (adjusted)</u> - annual-not annual vs stable annual, OR=1.3 (95% CI 1.0-1.6) - not annual-annual vs stable annual, NS - stable not annual vs stable annual, NS
Åström <i>et al.</i> (2011) ²⁹	1942 Sweden birth cohort study	Sweden; Adults aged 50 years (at year 1992) from two counties of Sweden	n=4143 Male: 47.8% Female: 52.2%	15 years	- Involved 4 sweeps, at ages of 50, 55, 60 and 65. - Self-administered questionnaires. - Secondary data analysis.	Dental care utilisation at 60 years old. - Yes - No	Tooth loss patterns between age 50 and 65 years old.	ORs	<u>Tooth loss across adulthood life course (50-55-60-65 years old)</u> - In adjusted model, dental care vs no dental care = NS <u>Tooth loss between 50 and 65 years old.</u> - In adjusted model, dental care vs no dental care = NS
Astrøm <i>et al.</i> (2014) ³³	1942 Sweden birth cohort study	Sweden; Adults aged 50 years (at year 1992) from two counties of Sweden	n=4143 Male: 47.8% Female: 52.2%	15 years	- Involved 4 sweeps, at ages of 50, 55, 60 and 65. - Self-administered questionnaires. - Secondary data analysis.	Routine dental care utilisation at '92 (50 years old) and '07 (65 years old) (0) nonroutine '92&'07 (1) routine '92 - nonroutine '07 (2) nonroutine '92 - routine '07 (3) routine '92&'07	At age 65 (2007), - OHRQoL using 8-item OIDP - Dentition status (major tooth loss 'lost many or all teeth')	ORs	<u>OIDP (adjusted):</u> - routine '92 - nonroutine '07 vs nonroutine '92&'07, NS - nonroutine '92 - routine '07 vs nonroutine '92&'07, OR=0.4 (95% CI 0.3-0.5) - routine '92/'07 vs nonroutine '92&'07, OR=0.3 (95% CI 0.2-0.5) <u>Major tooth loss (adjusted):</u> - routine '92 - nonroutine '07 vs nonroutine '92&'07, NS - nonroutine '92 - routine '07 vs nonroutine '92&'07, OR=0.8 (CI 0.6-0.9) - routine '92&'07 vs nonroutine '92&'07, OR=0.6 (95% CI 0.4-0.7)

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Astrøm <i>et al.</i> (2018) ³⁵	1942 Sweden birth cohort study	Sweden; Adults aged 50 years (at year 1992) from two counties of Sweden	n=3585 Male: 47.6% Female: 52.4%	20 years	- Involved 5 sweeps, at ages of 50, 55, 60, 65 and 70. - Self-administered questionnaires. - Secondary data analysis.	Long-term routine dental attendance at '92 (50 years old) and '07 (65 years old) (0) nonroutine '92&'07 (1) routine '92 - nonroutine '07 (2) nonroutine '92 - routine '07 (3) routine '92&'07 Long-term attendance at specialist dental care at '07 (65 years old) and '12 (70 years old). (0) no specialist care attendance '92&'07 (1) specialist care attendance '92/'07 (2) specialist attendance '92&'07	Change in OIDP scores between '07 (65 years old) and '12 (70 years old)	ORs	<u>Dental attendance patterns on worsened OIDP (adjusted)</u> - routine'92-nonroutine'07 vs nonroutine '92&'07, NS - nonroutine'92-routine'07 vs nonroutine '92&'07, OR=0.6 (95% CI 0.4-0.9) - routine '92&'07 vs nonroutine '92&'07, OR=0.4 (95% CI 0.4-0.8) <u>Dental attendance on improved OIDP (adjusted)</u> - routine'92-nonroutine'07 vs nonroutine '92&'07, NS - nonroutine'92-routine'07 vs nonroutine '92&'07, OR=0.5 (95% CI 0.4-0.7) - routine '92&'07 vs nonroutine '92&'07, OR=0.4 (95% CI 0.3-0.6) <u>Specialist attendance care on worsened OIDP (adjusted)</u> - specialist care '92/'07 vs no specialist care '92&'07, NS - specialist care '92&'07 vs no specialist care '92&'07, OR=1.4 (95% CI 1.1-1.8) <u>Specialist attendance care on improved OIDP (adjusted)</u> - specialist care '92/'07 vs no specialist care '92&'07, OR=1.6 (95% CI 1.3-2.1) - specialist care '92&'07 vs no specialist care '92&'07, OR=1.6 (95% CI 1.2-2.0)

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Thomson <i>et al.</i> (2010) ¹⁸	Dunedin Multidisciplinary Health and Development Study (birth cohort study)	New Zealand; Study members born between April 1972 and March 1973 in Dunedin	n=932 Male: 51.1% Female: 48.9%	17 years	- Involved 4 sweeps at ages 15, 18, 26 and 32. - Interview and clinical assessment. - Secondary data analysis.	Use of dental services at ages 15, 18, 26 and 32. - routine attenders - nonroutine attenders	At age 32, - mean DMFS - mean D - prevalence of 1+ teeth missing due to dental caries - self-reported oral health	ORs and IRRs	<u>Self-rated OH 'better than average'</u> (adjusted), - Age 15: routine vs nonroutine, OR=1.70 (95% CI 1.16-2.50) - Age 18: routine vs nonroutine, OR=1.52 (95% CI 1.12-2.05) - Age 26: routine vs nonroutine, OR=2.24 (95% CI 1.65-3.03) - Age 32: routine vs nonroutine, OR=3.36 (95% CI 2.42-4.66) <u>1+ teeth missing due to dental caries</u> (adjusted), - Age 15: routine vs nonroutine, NS - Age 18: routine vs nonroutine, OR=0.66 (95% CI 0.46-0.95) - Age 26: routine vs nonroutine, OR=0.35 (95% CI 0.23-0.54) - Age 32: routine vs nonroutine, OR=0.54 (95% CI 0.36-0.82) <u>Mean DS</u> (adjusted), - Age 15: routine vs nonroutine, IRR=0.64 (95% CI 0.42-0.96) - Age 18: routine vs nonroutine, IRR=0.67 (95% CI 0.49-0.90) - Age 26: routine vs nonroutine, IRR=0.60 (95% CI 0.43-0.84) - Age 32: routine vs nonroutine, IRR=0.54 (95% CI 0.40-0.73) <u>Mean DMFS</u> (adjusted), - Age 15: routine vs nonroutine, NS - Age 18: routine vs nonroutine, IRR=0.83 (95% CI 0.73-0.95) - Age 26: routine vs nonroutine, IRR=0.86 (95% CI 0.75-0.98) - Age 32: routine vs nonroutine, NS

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Crocombe <i>et al.</i> (2012) ³²	Dunedin Multidisciplinary Health and Development Study (birth cohort study)	New Zealand; Study members born between April 1972 and March 1973 in Dunedin	n=833 sex proporti on not stated	17 years	- Involved 4 sweeps at ages 15, 18, 26 and 32. - Interview and clinical assessment. - Secondary data analysis.	Dental visiting trajectories at ages 15, 18, 26 and 32. - regular attenders - decliners - opportunists	Oral health at age 32 -mean DMFS -mean D, M, F (separately) -mean OHIP-14 score - self-rated OH: dichotomised into 'better than average' and 'worse than average'	RRs and coefficient (β) values <u>DMFS (adjusted)</u> - opportunist vs regular, β =3.9 (95% CI 0.2-7.6) - decliner vs regular, NS <u>Missing (adjusted)</u> - opportunist vs regular β =0.7 (95% CI 0.2-1.2) - decliner vs regular, NS <u>Filled (adjusted)</u> - opportunist vs regular, NS - decliner vs regular, NS <u>Decayed (adjusted)</u> - opportunist vs regular, NS - decliner vs regular, NS <u>OHIP-14 (adjusted)</u> - opportunist vs regular, β =2.1 (95% CI 0.4-3.8) - decliner vs regular, β =2.1 (95% CI 0.9-3.2) <u>Self-rated OH (adjusted)</u> - opportunist vs regular, RR=0.8 (95% CI 0.7-0.9) - decliner vs regular, RR=0.8 (95% CI 0.7-0.9)	
Broadbent <i>et al.</i> (2016) ³⁴	Dunedin Multidisciplinary Health and Development Study (birth cohort study)	New Zealand; Study members born between April 1972 and March 1973 in Dunedin	n=848 sex proporti on not stated	12 years	- Involved 3 sweeps at ages 26, 32, and 38. - Interview and clinical assessment. - Secondary data analysis.	Dental attendance at ages 26 and 32. - regular - nonregular	Dental caries experience (count) at age 38: - decayed tooth surfaces - missing tooth surfaces	Standard estimate values Dental attendance → decayed tooth surfaces Std estimate= -1.184 (95% CI -2.286 to -0.395) Dental attendance → missing tooth surfaces Estimate= -5.883 (95% CI -10.33 to -2.811)	

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Hong <i>et al.</i> (2023) ³⁷	Dunedin Multidisciplinary Health and Development Study (birth cohort study)	New Zealand; Study members born between April 1972 and March 1973 in Dunedin	n=844 sex proportion not stated	19 years	- Involved 4 sweeps at ages of 26, 32, 38 and 45. - Interview. - Secondary data analysis.	Dental visiting patterns at age 26, 32, 38 and 45. - never routine - sometimes routine - always routine	Change in mean OHIP-14 scores between age 32 and 45. Change in prevalence of OHIP-14 impacts at age 32 and 45.	IRRs and ORs	<u>Change in OHIP-14 scores (proportion)</u> - Worsened: never > sometimes > always routine - Stable no change: always > sometimes > never routine - Improved: always > never > sometimes <u>Mean OHIP-14 scores (adjusted)</u> - sometimes vs never routine attenders, IRR=0.85 (95% CI 0.76-0.94) - always vs never routine attenders, IRR=0.59 (95% CI 0.44-0.80) <u>OHIP-14 impact prevalence (adjusted)</u> - sometimes vs never routine attenders, OR=0.70 (95% CI 0.54-0.92) - always vs never routine attenders, NS
Crocombe <i>et al.</i> (2012) ³¹	Australian study	Australia; Tasmanian aged ≥15years	n=362 Male: 50.8% Female: 49.2%	12 months	- 12-month follow-up by mail self-complete questionnaire, dental attendance from the service-use logbook or the dental treatment audit. - Primary data analysis	Dental attendance - Yes/No Patterns of attendance at baseline - regularity: ≤12 months / >12 months - usual reason: check-up / dental problem	Change in OHIP-14 severity	Estimated values	<u>Change in OHIP-14 severity</u> - Dental attendance was associated with change in mean OHIP-14 severity (estimate=1.73, SE=0.66, p-value=0.01). - No significant association between patterns of attendance and change in OHIP-14 severity (from bivariate analysis)

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Lu <i>et al.</i> (2011) ³⁰	Hong Kong study	Hong Kong, China; Secondary schoolchildren aged 12 years	n= 232 Male: 52.2% Female: 47.8%	6 years	- Self-completed questionnaires and clinical examination at three time points: 12, 15 and 18 years old. - Primary data analysis	Utilisation of dental services during adolescence -Yes/No	DMFT index and periodontal health status at age 12, 15, 18. - mean DMFT value - highest CPI score	coefficient (β) values	- utilisation of dental service at 12-15years → utilisation of dental service at 15-18years (β =0.432, p<0.05) - utilisation of dental service at 15-18years → mean DMFT (β =0.117, p<0.05) - utilisation of dental service at any point of time → CPI score (NS)

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Menegazzo <i>et al.</i> (2020) ³⁶	Brazilian study	Brazil; Preschool children aged 12-59 months in Santa Maria	n=449 Male: 49.0% Female: 51.0%	7years	- Self-completed questionnaires by parents for dental attendance; face-to-face interview with children for the CPQ8-10 (Brazilian version) at follow-up. - Primary data analysis	Long-term routine dental attendance at baseline (T1) & f/up (T2) (0) Routine T1 & T2 (1) Nonroutine attendance/non-users T1 & Routine T2 (2) Routine T1 & Nonroutine attendance/non-users T2 (3) Nonroutine attendance/non-users T1 & T2	Mean CPQ8-10 score at follow-up	IRRs	<u>Overall CPQ8-10 score (adjusted)</u> - (1) vs (0), IRR=2.20 (95% CI 1.67-2.91) - (2) vs (0), IRR=1.70 (95% CI 1.28-2.25) - (3) vs (0), IRR=2.05 (95% CI 1.59-2.66) - Nonroutine T1 vs Routine T1, IRR=1.31 (95% CI 1.16-1.49) - Nonroutine T2 vs Routine T2, NS <u>Domain 1: Oral symptoms</u> - (1) vs (0), IRR=1.58 (95% CI 1.09-2.28) - (2) vs (0), NS - (3) vs (0), IRR=1.42 (95% CI 1.02-1.98) - Nonroutine T1 vs Routine T1, IRR=1.22 (95% CI 1.02-1.46) - Nonroutine T2 vs Routine T2, NS <u>Domain 2: Functional limitation</u> - (1) vs (0), NS - (2) vs (0), NS - (3) vs (0), IRR=2.16 (95% CI 1.21-3.88) - Nonroutine T1 vs Routine T1, IRR=1.58 (95% CI 1.18-2.12) - Nonroutine T2 vs Routine T2, IRR=1.31 (95% CI 1.00-1.71) <u>Domain 3: Emotional well-being</u> - (1) vs (0), IRR=2.54 (95% CI 1.29-4.99) - (2) vs (0), IRR=2.59 (95% CI 1.31-5.09) - (3) vs (0), IRR=2.44 (95% CI 1.29-4.59) - Nonroutine T1 vs Routine T1, NS - Nonroutine T2 vs Routine T2, NS <u>Domain 4: Social well-being</u> - (1) vs (0), IRR=15.09 (95% CI 3.68-61.87) - (2) vs (0), IRR=9.86 (95% CI 2.38-40.80) - (3) vs (0), IRR=11.90 (95% CI 2.95-47.93) - Nonroutine T1 vs Routine T1, IRR=1.60 (95% CI 1.18-2.17) - Nonroutine T2 vs Routine T2, NS

OHRQoL: Oral Health-Related Quality of Life; OIDP: Oral Impacts on Daily Performance; OHIP: Oral Health Impact Profile; CPQ: Child Perception Questionnaire; CPI: Community Periodontal Index; DMFS: Decayed, Missing and Filled Surfaces; DMFT: Decayed, Missing and Filled Teeth; D: Decayed; M: Missing; F: Filled; OR: Odds Ratio; IRR: Incidence Rate Ratio; NS: Not Significant.