

Caries Studies included in the Cochrane Review 2015

Nineteen prospective observational studies published between 1951 and 2015 met the inclusion criteria for the caries outcome. Eighteen of these studies looked at the effect of the initiation of water fluoridation programme on dental caries and one study focused on the effect of cessation of fluoridation on caries (Maupome 2001). **Only one study followed the same participants over time (Hardwick 1982), evaluating 12-year old children in a fluoridated and a non-fluoridated area and following them for four years.** All other studies evaluated specific age groups within three years of a change in fluoridation status and undertook a follow-up evaluation of the same age groups (different children) at least one other time point. A low/non-fluoridated area was used as a control. These have been analysed as controlled before-and-after studies.

| No | Study Name | Year published | Country | Sampling | Confounding | Blinding of outcome assessment (detection bias) | Incomplete outcome data (attrition bias) | Selective reporting (reporting bias) | Other |
|---------------------------------|-------------------------|----------------|--------------------|----------|-------------|---|--|--------------------------------------|-----------|
| 1 | Adriasola | 1959 | Chile | Unclear | High | High | Unclear | High | Low |
| 2 | Arnold | 1956 | USA | Low | High | High | Unclear | High | High |
| 3 | Ast | 1951 | USA | Low | High | High | High | High | High |
| 4 | Becker-Dirks | 1961 | Holland | Low | High | Low | Unclear | High | Low |
| 5 | Beal | 1971 | England | Unclear | High | High | Unclear | Low | High |
| 6 | Beal | 1981 | England | Low | High | High | Low | Low | Low |
| 7 | Blinkhorn (unpublished) | | Australia | Low | High | High | Unclear | High | Low |
| 8 | Brown | 1965 | Canada | Low | High | High | High | Low | Unclear |
| 9 | DHSS England | 1969 | England | Low | High | High | Low | High | High |
| 10 | DHSS Scotland | 1969 | Scotland | Low | High | High | High | High | High |
| 11 | DHSS Wales | 1969 | Wales | Unclear | High | High | Low | High | High |
| 12 | Gray | 2001 | England | Low | High | High | Low | Low | High |
| 13 | Guo | 1984 | Taiwan | Low | High | High | Low | Low | High |
| 14 | Hardwick | 1982 | England | Low | High | Low | Low | Low | Low |
| 15 | Kunzel | 1997 | Germany | Unclear | High | High | Low | Low | Low |
| 16 | Loh | 1996 | Singapore/Malaysia | Unclear | High | High | Unclear | High | Low |
| 17 | Maupome | 2001 | Canada | Unclear | High | High | High | Low | Unclear |
| 18 | Pot | 1974 | Holland | Low | High | High | Unclear | High | High |
| 19 | Tessier | 1987 | Canada | Low | High | High | Low | High | High |
| TOTALS HIGH RISK OF BIAS | | | | | 19 | 17 | 4 | 11 | 10 |