**APPENDIX 1: CHANGES TO THE INITIAL PROTOCOL**

Minor changes were made to the protocol (Stanhope *et al.* 2015a, 2015b) following its publication and before searching commenced.

**Database search terms**

The term “burn\*” was added as a health outcome term. With regards to the spring water terms it was noticed that the search string below contained the term “spring?” in both groups of terms, hence any article with the term “spring” or “springs” would have been identified, which was too broad.

*(spring? OR mineral\* OR natural\* OR thermal OR healing OR medic\* OR sul\*ur\* OR saline OR bromine OR iodic OR salt? OR radon OR curative OR cure? OR therap\* OR artesian OR geogenic\*) N/1 (water? OR spring? OR pool? OR spa? OR bath? OR stream? OR tributar\*)*

This string was amended as shown below to eliminate this issue.

*((spring? OR mineral\* OR natural\* OR thermal OR healing OR medic\* OR sul\*ur\* OR saline OR bromine OR iodic OR salt? OR radon OR curative OR cure? OR therap\* OR artesian OR geogenic\*) N/1 water?)*

*OR*

*((mineral\* OR natural\* OR thermal OR healing OR medic\* OR sul\*ur\* OR saline OR bromine OR iodic OR salt? OR radon OR curative OR cure? OR therap\* OR artesian OR geogenic\*)*

*N/1 spring?)*

*OR*

*((spring? OR mineral\* OR natural\* OR thermal OR healing OR medic\* OR sul\*ur\* OR saline OR bromine OR iodic OR salt? OR radon OR curative OR cure? OR therap\* OR artesian OR geogenic\*) N/1 pool?)*

*OR*

*((spring? OR mineral\* OR natural\* OR thermal OR healing OR medic\* OR sul\*ur\* OR saline OR bromine OR iodic OR salt? OR radon OR curative OR cure? OR therap\* OR artesian OR geogenic\*) N/1 spa?)*

*OR*

*((spring? OR mineral\* OR natural\* OR thermal OR healing OR medic\* OR sul\*ur\* OR saline OR bromine OR iodic OR salt? OR radon OR curative OR cure? OR therap\* OR artesian OR geogenic\*) N/1 bath?)*

*OR*

*((spring? OR mineral\* OR natural\* OR thermal OR healing OR medic\* OR sul\*ur\* OR saline OR bromine OR iodic OR salt? OR radon OR curative OR cure? OR therap\* OR artesian OR geogenic\*) N/1 stream?)*

*OR*

*((spring? OR mineral\* OR natural\* OR thermal OR healing OR medic\* OR sul\*ur\* OR saline OR bromine OR iodic OR salt? OR radon OR curative OR cure? OR therap\* OR artesian OR geogenic\*) N/1 tributar\*)*

In addition, searches were limited to those published in English language.

**Critical appraisal**

In the protocol (Stanhope *et al.* 2015a, 2015b) it was proposed that all experimental studies would undergo critical appraisal. The decision was made not to appraise those which were included only for the purpose of reporting adverse events, as these studies were not comparing different types of spring water exposure, and were therefore considered low level evidence.

**APPENDIX 2: FLOW CHART OF STUDY INCLUSION AND EXCLUSION**

**Google Scholar search, n=43**

New Zealand Medical Journal, n=16

Medical Journal of Australia, n=23

Australian and New Zealand Journal of Public Health, n=4

**Studies identified through the database search, n=5992**

AMED, n=0

CINAHL, n=65

Cochrane, n=0

Embase, n=1066

Health Source, n=18

Medline, n=530

PubMed, n=2087

Web of Science, n=2226

**Total number of studies, n=6035**

**Duplicate studies removed, n=1068**

**Unique studies, n=4967**

**Studies removed based on title/ abstract screening, n=4781**

**Studies retained for full-text screening, n=186**

**Studies removed based full text screening, n=180**

Abstract only, n=6

Review, commentary, correspondence, n=11

No spring water, n=159

Not Australian/ New Zealand, n=3

Combined treatments, n=1

**Included, n=6**

**Studies included from screening reference and citation lists, n=5**

**Included, n=11**

**APPENDIX 3: SUMMARY OF APPRAISAL OF WEINSTEIN *ET AL*. (1993) USING THE QUALITY CRITERIA OF SHAMLIYAN *ET AL*. (2011)**

|  |  |
| --- | --- |
| **Poor reporting** | * No information about sampling bias * Response rate in total sample was not reported * Exclusion rate from the analysis in total sample was not reported * Exclusion from analysis was not reported separately for exposure and non-exposed * Analysis for sampling bias was not reported * Reliability of estimates was not reported for the outcome measurement * Did not report reliability of the estimates for measurement exposure * Strategies to reduce research specific bias were not reported * Dose response with exposure may be relevant but was not reported * Unclear reporting of the estimates * Sample size was not justified |
| **Minor flaws** | * Exposure intensity/dose can be relevant but not assessed in the study * Reported only the percentage of nonresponse for cases, not controls * Mask exposure was possible but not obtained |
| **Major flaws** | * The authors did not validate the methods to measure exposure |