**Supplementary Data**

**Dietary assessment methods for measurement of oral intake in critically ill and acute care hospitalized patients: a scoping review**

Clare E Ferguson1,2 Email: [Clare.Ferguson1@monash.edu](about:blank)

Oana A Tatucu-Babet1,2 Email: [Oana.Tatucu@monash.edu](about:blank)

Jenna N Amon1,2 Email: [Jenna.Amon@monash.edu](about:blank)

Lee-anne S Chapple3,4,5 Email: [lee-anne.chapple@adelaide.edu.au](about:blank)

Lauren Malacria1 Email [lemal2@student.monash.edu](about:blank)

Ivy Myint Htoo1 Email: [imyi0001@student.monash.edu](about:blank)

Carol L Hodgson1,6,7,8,9\* Email: [carol.hodgson@monash.edu](about:blank)

Emma J Ridley1,2\* Email: [emma.ridley@monash.edu](about:blank)

1. Australian and New Zealand Intensive Care Research Centre, School of Public Health and Preventive Medicine, Monash University, Melbourne Victoria, Australia.
2. Dietetics and Nutrition Department, Alfred Health, Melbourne Victoria, Australia.
3. Adelaide Medical School, The University of Adelaide, Adelaide, South Australia, Australia.
4. Intensive Care Unit, Royal Adelaide Hospital, Adelaide, South Australia, Australia.
5. Centre of Research Excellence in Translating Nutritional Science to Good Health, The University. of Adelaide, Adelaide, South Australia, Australia.
6. Division of Clinical Trial and Cohort Studies, School of Public Health and Preventive Medicine, Monash University, Melbourne, Victoria, Australia.
7. Department of Critical Care, University of Melbourne, Melbourne, Victoria, Australia.
8. The George Institute for Global Health.
9. Physiotherapy Department, Alfred Health, Melbourne, Victoria, Australia.

\*Considered joint senior authors

**Supplementary appendix I**: Table 1: Protocol Modifications

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| **Change** | **Rationale** |
| Studies need to report on a dietary assessment method that quantified at a minimum energy intake | To capture literature describing dietary assessment method used to quantify total dietary intake rather than a single nutrient such as protein or micronutrients. |
| Exclusion of studies with secondary reporting of data | To avoid duplicate reporting of results. |
| Exclusion of studies where there was insufficient reporting of the dietary assessment method used for quantification of oral diet | During full text screening multiple studies were found to report energy intake however there was inadequate description of the method used to derive this calculation. In line with the scoping review objective to describe dietary assessment methods these studies were excluded. |
| Exclusion of theses | Following the database searches for primary research all grey literature including theses were excluded to enable a feasible search result within time constraints. |

**Supplementary appendix II**: Eligibility details for selection of evidence sources

Inclusion

1. Adult (aged > 18 years);
2. Patients consuming an oral diet;
3. Critical care or acute care setting globally;
4. Reported dietary assessment methods used to quantify oral intake, including at a minimum energy intake;
5. Original research articles including experimental (randomised controlled trials, cross over trials, interventional study with historical control) or observational: cohort, pre and post studies, case-control, cross sectional;
6. Full publication studies.

Exclusion

1. Patients consuming a fluid only diet;
2. Patients receiving exclusive enteral or parenteral nutrition with no consumption of oral diet or patients receiving oral intake and/or enteral or parenteral with no distinction made regarding quantification of oral intake;
3. No quantification of energy intake was reported;
4. Oral intake was quantified prior to acute hospital admission;
5. Inadequate description of the dietary assessment methodology used for quantification of oral intake;
6. Reported on malnutrition screening tools where change in intake was estimated as a component of a screening tool;
7. Non-acute care patients, defined as those receiving maternity services, pre-operative assessment, day surgery, inpatient rehabilitation, or care as an outpatient;
8. A mixed population where results were not presented separately for acute and or critically ill patients.
9. Paediatric patients (aged < 18 years);
10. Studies published prior to the year 2000;
11. Animal studies;
12. Non-English publications;
13. Non original data- grey literature including theses, websites, editorials, opinion articles, guidelines, case studies and conference abstracts.

**Supplementary appendix III**: Table 2: Key definitions of terms used within the scoping review.

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| **Term** | **Definition** |
| Critical care setting | A critical care setting is defined as a designated facility for the care of adult patients requiring intensive care and sophisticated technological support services. Defined as being capable of providing complex, multisystem life support for an indefinite period. |
| Acute care setting | Acute care is care that is provided in a setting were the primary treatment goal is any of the following:   1. treatment of illness or injury; 2. cure illness or provide definitive treatment of injury 3. perform surgery 4. relieve symptoms of illness or injury (excluding palliative care) 5. reduce severity of an illness or injury 6. protect against exacerbation of illness or injury which could threaten life or normal function 7. perform diagnostic or therapeutic procedures.   This excludes patients who are receiving maternity services, pre-operative assessment, day-case surgery, inpatient rehabilitation or as an outpatient. |
| Oral intake | Oral intake is defined as consumption of any oral food or fluids via the mouth with the exception of consumption of fluid only diets. |
| Dietary assessment method | Dietary assessment method refers to any assessment method used in the included studies with the primary aim of collecting information on the consumption of food and fluids that is then used to calculate intakes of energy, nutrients and other dietary constituents. |
| Factors that influence non-completion of the dietary assessment method | Any factor that is reported in the included studies that may prevent or limit successful completion of dietary intake assessment, including individual patient factors or wider collective factors. |
| Strategies that enhance completion of the dietary assessment method | Any factor reported in the included studies that may promote or facilitate completion of dietary intake assessment, including individual patient factors or wider collective factors. |
| Food record | Prospective short-term method where details of the food and drink are recorded as they are consumed, also commonly called a food diary. This assessment method may be based on self-report or direct observation of consumption. Details of the amount of food eaten can either be estimated or quantified using weighing. Information may be recorded using paper-based forms or online. |
| 24-hour recall | Retrospective short-term method where quantification of food and drink is based on a recall of all food and drinks consumed in the prior 24-hour period. The recall can be administered by an interviewer or self-administered using automated tools. |
| Plate waste | Plate waste quantifies dietary intake based on the volume or percentage of food and beverages that is discarded at the end of a meal period. There are two main approaches: visual estimation and weighing. |

**Supplementary Appendix IV**: Final MEDLINE search strategy (15/03/2023)

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| **#** | **Search terms** |
| 1 | exp Acute Disease/ or exp critical illness/ or exp critical care nursing/ or exp Respiration, Artificial/ or exp Subarachnoid Hemorrhage/ |
| 2 | critical care/ or early goal-directed therapy/ or intensive care units/ or burn units/ or coronary care units/ or recovery room/ or respiratory care units/ or brain hemorrhage, traumatic/ or brain injuries, diffuse/ or brain hemorrhage, traumatic/ or brain injuries, traumatic/ |
| 3 | (((intensive or critica\*) adj3 (care or unit\* or illness\*)) or (high dependency unit\* or acute care ward\* or critical\* ill\* or ITU) or (mechanical\* adj4 ventilat\*)).mp. |
| 4 | (((acute\* or severe\*) adj ill\*) or (acute adj (care\* or setting\* or ward\* or unit\* or patient\* or clinical or medical)) or ((severe\* or critical or acute) adj (disease\* or condition)) or (acute adj1 hospital\*)).mp. |
| 5 | ((hospital\* adj6 patient\*) or (clinical adj (care\* or setting\* or ward\* or unit\*))).mp. |
| 6 | 1 or 2 or 3 or 4 or 5 |
| 7 | diet records/ |
| 8 | ((meal or food) adj3 hospital\*).mp. |
| 9 | ((nutrition or meal or oral or calori\* or energy) adj intake).mp. |
| 10 | (diet\* adj (management\* or monitor\* or asses\* or intake\* or methodolog\*)).mp. |
| 11 | ((food? adj2 (questionnaire\* or intake or hospital)) or FFQ or (food? adj2 record\*) or (food adj2 recall) or (food? adj2 diar\*) or (food? adj2 (checklist\* or check-list\*)) or (diet\* adj2 histor\*) or (diet\* adj2 tool\*) or (diet\* adj2 record\*) or (nutrition adj2 instrument\*)).mp. |
| 12 | 7 or 8 or 9 or 10 or 11 |
| 13 | 6 and 12 |
| 14 | exp animals/ not humans.sh. |
| 15 | exp child/ or exp pediatrics/ or exp infant, newborn/ or exp intensive care units, neonatal/ or exp intensive care, neonatal/ or exp newborn/ |
| 16 | (child\* or infan\* or pediatr\* or paediatr\* or neonat\* or preterm or newborn\*).mp. |
| 17 | 14 or 15 or 16 |
| 18 | 13 not 17 |
| 19 | limit 18 to english language |
| 20 | limit 19 to last 20 years |
| 21 | limit 20 to (address or autobiography or bibliography or biography or case reports or clinical trial, veterinary or comment or congress or consensus development conference or consensus development conference, nih or dictionary or directory or duplicate publication or editorial or electronic supplementary materials or festschrift or guideline or historical article or interactive tutorial or interview or lecture or legal case or legislation or letter or news or newspaper article or patient education handout or periodical index or personal narrative or portrait or practice guideline) |
| 22 | 20 not 21 |
| 23 | 22 not (address or autobiography or bibliography or biography or case report\* or conference or comment or congress or consensus development conference or dictionary or directory or editorial or festschrift or government publication or guideline or historical article or interactive tutorial or interview or lecture or legal case or legislation or letter or news or newspaper article or patient education handout\* or periodical index or personal narrative or portrait or practice guideline or veterinar\* or video-audio media or webcast).mp. |
| 24 | 23 not (newspaper\* or Anecdote\* or Biograph\* or Book or Book Chapter\* or Book Review\* or Brief Item\* or Case Study or Directories or Dissertation or Thesis or Theses or Exam Questions or Pamphlet or Proceedings).af. |

**Supplementary Appendix V**: Screening Process applied in EndNote.

**Supplementary Appendix VI**: Data extraction tool

Application, table

Description automatically generated

**Supplementary Appendix VII**: Modifications made to the data charting tool during extraction.

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| **Change** | **Rationale** |
| Removal of study aims and outcomes from data extraction fields | The data extraction tool was modified to remove extraction of primary and secondary outcomes due to unclear reporting of these variables within the literature |
| Classification of study designs as per the NHMRC levels of evidence and grades for recommendations | Due to poor reporting of study designs by the authors the NHMRC levels of evidence and grades for recommendations were used to define study designs where these were not outlined by authors. |

**Supplementary Appendix VIII**: Table 3: Study characteristics

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| Study Number | Author, Year, Geographical Location | Study Design | Single or Multi -Centre | Total sample size (n)  \*Dietary data (n) | Dietary assessment method |
| 1 | Agarwal, 2013,  Australia(12) | Cross sectional | Single centre | 164  201 | Plate diagram  (estimated plate waste) |
| 2 | Alkan, 2018,  Turkey(21) | Cross sectional | Single centre | 104 | 24-hour recall |
| 3 | Allard, 2015,  Canada(22) | Prospective cohort | Multi centre | 424 | Nutrition Day form  (estimated plate waste) |
| 4 | Allepaerts, 2020,  Belgium(23) | Cross sectional | Single centre | 79 | Food record |
| 5 | Amaral, 2022,  Brazil(24) | Cross sectional | Single Centre | 96 | Food record |
| 6 | Barrington, 2018,  Australia(25) | Pre and post study | Single centre | 201 | Estimated plate waste |
| 7 | Baur, 2013,  Australia(26) | RCT | Single centre | 24 | 24-hour recall |
| 8 | Beavan, 2018,  UK2(172) | Pre and post study | Single centre | 127  1101 | 24-hour recall |
| 9 | Beermann, 2016,  Denmark(27) | Pre and post study | Single centre | 62 | Food record |
| 10 | Berrut, 2002,  France(28) | Cross sectional | Single centre | 79 | Meal portion method  (estimated plate waste) |
| 11 | Birmingham, 2005,  Canada(29) | Cross sectional | Single centre | 17 | Estimated plate waste |
| 12 | Bjornsdottir, 2013,  Iceland(30) | Cross sectional | Single centre | 73 | Plate diagram  (estimated plate waste) |
| 13 | Blanc-bisson, 2008,  France(31) | RCT | Single centre | 76 | Food record |
| 14 | Bourdel-Marchasson, 2004, France(32) | Cross sectional | Single centre | 427 | Estimated plate waste |
| 15 | Boutata, 2022,  Algeria(33) | Cross sectional | Single centre | 105 | 24-hour recall |
| 16 | Braga-Azumbuja, 2015, Brazil(34) | Cross sectional | Single centre | 595 | 24-hour recall |
| 17 | Briguglio, 2022,  Italy(35) | Cross sectional | Single centre | 50 | Estimated plate waste |
| 18 | Budiningsari, 2016, Malaysia(36) | Cross sectional | Single centre | 67 | Pictorial dietary assessment method (estimated plate waste) |
| 19 | Budiningsari, 2018, Malaysia(174) | Cross over trials | Single centre | 132 | Pictorial dietary assessment method  (estimated plate waste) |
| 20 | Burden, 2001,  UK2(37) | Cross sectional | Single centre | 100 | Food record |
| 21 | Calleja Fernandez, 2015, Spain(38) | Prospective cohort | Single centre | 73 | Estimated plate waste |
| 22 | Calleja Fernandez, 2017, Spain(39) | Cross sectional | Multi centre | 242 | Weighed plate waste |
| 23 | Celik, 2021,  Turkey(40) | Cross sectional | Single centre | 162 | 24-hour recall |
| 24 | Chapple, 2016,  Australia(170) | Cross sectional | Single centre | 32 | Weighed food records |
| 25 | Dekker, 2019, Netherlands(41) | Cross sectional | Single centre | 38 | Rate a Plate  (estimated plate waste) |
| 26 | De Luis, 2006, Netherlands(42) | Prospective cohort | Single centre | 1088 | Food record |
| 27 | Dijxhooorn, 2018, Netherlands(43) | Pre and post study | Single centre | 707  6371 time point one;  1691 time point two | Weighed plate waste |
| 28 | Doorduijn, 2016, Netherlands(44) | Pre and post study | Single centre | 409  1691 | Food record |
| 29 | Duncan, 2006,  UK2(45) | RCT | Single centre | 318 | Food record |
| 30 | Dynesen, 2021,  Denmark(46) | Pre and post study | Single centre | 204  1501 | Weighed plate waste |
| 31 | Edwards, 2004,  UK2(47) | Cross sectional | Single centre | 13 | Weighed plate wase |
| 32 | Eneroth, 2005,  Sweden(48) | RCT | Single centre | 80 | Food record |
| 33 | Francis, 2019,  Australia(49) | Cross over trials | Multi centre | 30 | Food record |
| 34 | Frederiksen, 2022, Denmark(50) | Non-randomised trial design | Single centre | 61  401 | Food record |
| 35 | Freil, 2006,  Denmark(51) | Pre and post study | Single centre | 969 | Weighed food records |
| 36 | Gallegos, 2019,  Vietnam(52) | Cross sectional | Multi centre | 888 | 24-hour recall |
| 37 | Gariballa, 2008,  UK2(53) | Cross sectional | Single centre | 162 | Food record |
| 38 | Ghisolfi, 2014,  France(54) | Cross sectional | Single centre | 100 | Calorie intake tool  (estimated plate waste) |
| 39 | Goeminne, 2012,  Belgium(55) | Pre and post study | Single centre | 189 | Weighed plate waste |
| 40 | Goisser, 2015,  Germany(56) | Prospective cohort | Single centre | 117  881 | Plate diagram  (estimated plate waste) |
| 41 | Hamai, 2019,  Japan(57) | Cross over trials | Single centre | 18  171 | Food record |
| 42 | Hansen, 2008,  Denmark(58) | Cross sectional | Single centre | 119 | Food record |
| 43 | Hegerova, 2015,  Czech Republic(59) | RCT | Single centre | 200 | Food record |
| 44 | Henry, 2002,  Hong Kong(60) | Cross over trials | Single centre | 14 | Weighed plate weight |
| 45 | Henry, 2003,  Hong Kong(61) | Cross sectional | Single centre | 24  171 | Weighed plate waste |
| 46 | Hickson, 2004,  UK2(62) | RCT | Single centre | 492 | Food record |
| 47 | Hickson, 2007,  UK2(64) | Pre and post study | Single centre | 57 | Weighed plate waste |
| 48 | Hickson, 2011,  UK2(63) | Pre and post study | Single centre | 490 | Weighed food records |
| 49 | Hirose, 2021,  Japan(65) | Cross over trials | Single centre | 83 | Food record |
| 50 | Hoekstra, 2011, Netherlands(66) | Non- randomised trial design | Single centre | 127 | Food record |
| 51 | Holst, 2016,  Denmark(173) | Pre and post study | Single centre | 204 | Food record |
| 52 | Holst, 2017,  Denmark(67) | Pre and post study | Single centre | 67 | Food record |
| 53 | Hou, 2013,  China(68) | RCT | Single centre | 70 | Food record |
| 54 | Hu, 2011,  China(69) | Cross sectional | Single centre | 94 | 24-hour recall |
| 55 | Huang, 2015,  Australia(70) | Cross over trials | Single centre | 8 | Estimated plate weight |
| 56 | Humphreys, 2002,  Chile(71) | Prospective cohort | Multi centre | 70 | Estimated plate waste |
| 57 | Husted, 2017,  Denmark(72) | Cross sectional | Single centre | Reported at meal level | Meal portions consumed  (estimated plate waste) |
| 58 | Huxtable, 2013,  Australia(73) | Pre and post study | Single centre | 1012 | Food record |
| 59 | Huynh, 2014,  India(74) | RCT | Multi centre | 212 | 24-hour recall |
| 60 | Ingaddotir, 2015,  Iceland(77) | Pre and post study | Single centre | 161 | Plate diagram  (estimated plate waste) |
| 61 | Ingaddotir, 2018,  Iceland(75) | Cross sectional | Single centre | 137 | Plate diagram  (Estimated plate waste) |
| 62 | Ingaddotir, 2020,  Iceland(76) | Cross over trials | Single centre | 17 | Plate diagram  (estimated plate waste) |
| 63 | Inoue, 2019,  Japan(78) | Prospective cohort | Multi centre | 200 | Estimated plate waste |
| 64 | Jeejeebhoy, 2015,  Canada(79) | Cross sectional | Multi centre | 733 | Nutrition day form  (estimated plate waste) |
| 65 | Kandiah, 2006,  US3(80) | Cross sectional | Single centre | 346 | Estimated plate waste |
| 66 | Kawano, 2015,  Japan(81) | Cross over trials | Single centre | 15 | Weighed plate waste |
| 67 | Kawasaki, 2019,  Japan(82) | Cross sectional | Multi centre | Reported at tray level | Plate diagram  (estimated plate waste) |
| 68 | Keller, 2015,  Canada(84) | Prospective cohort | Multi centre | 947 | Nutrition day form  (estimated plate waste) |
| 69 | Keller, 2018,  Canada(83) | Pre and post study | Multi centre | 1250 | My meal intake tool (estimated plate-waste) |
| 70 | Kondrup, 2002,  Denmark(85) | Cross sectional | Multi centre | 740  771 | Food record |
| 71 | Kong, 2019,  Malaysia(86) | Cross sectional | Multi centre | 2587 | Estimated plate waste |
| 72 | Kowanko, 2000,  Australia(87) | Cross sectional | Single centre | 585 | Estimated plate waste |
| 73 | Larsen, 2007,  Denmark(88) | Pre and post study | Single centre | 178  1131 | Food record |
| 74 | Lassen, 2004,  Denmark(89) | Non randomised trial design | Single centre | 108 | Weighed food records |
| 75 | Lee, 2023,  Australia(90) | Cross sectional | Single centre | 51 | 24 bour recall |
| 76 | Leistra, 2011,  Netherlands(91) | Retrospective cohort | Single centre | 830  6101 | Food record |
| 77 | Liang, 2008,  Australia(92) | Cross sectional | Single centre | 38 | 24-hour recall |
| 78 | Lindman, 2013, Denmark(93) | Pre and post study | Single centre | 86 | Weighed plate waste |
| 79 | Long, 2022,  China(94) | Non randomised trial design | Single centre | 244 | Mobile application |
| 80 | Makhoulf, 2019, Switzerland(95) | Cross sectional | Single centre | 755 | Estimated plate waste |
| 81 | Manning, 2012, Australia(96) | Cross sectional | Single centre | 23 | Weighed plate waste |
| 82 | McCray, 2018, Australia(97) | Pre and post study | Single centre | 188 | Estimated plate waste |
| 83 | Mcculough, 2018, Canada(98) | Cross sectional | Multi centre | 120  941 | My meal intake tool  (estimated plate waste) |
| 84 | Meng, 2010,  China(99) | Cross sectional | Single centre | 315 | Estimated plate waste |
| 85 | Mikus, 2016, Slovenia(100) | Cross sectional | Single centre | 53 | Estimated plate waste |
| 86 | Miller, 2006, Australia(101) | Cross sectional | Single centre | 100  681 | Estimated plate waste |
| 87 | Miyoba, 2018, Zambia(102) | Cross sectional | Single centre | 100 | 24-hour recall |
| 88 | Modic, 2011,  US3(103) | Cross sectional | Single centre | 434 | Estimated plate waste |
| 89 | Morgan Yordy, 2017, US3(104) | Pre and post study | Single centre | 100 | Food record |
| 90 | Mortensen, 2019, Denmark(105) | Pre and post study | Single centre | 92 | Food record |
| 91 | Mudge, 2011, Australia(106) | Cross sectional | Single centre | 134 | Estimated plate waste |
| 92 | Munk, 2012, Denmark(107) | Interventional study with historical control | Single centre | 52 | Food record |
| 93 | Munk, 2014, Denmark(108) | RCT | Single centre | 84 | Food record |
| 94 | Munk, 2017, Denmark(109) | Interventional study with historical control | Single centre | 91 | Food record |
| 95 | Musters, 2022, Denmark(110) | Prospective cohort | Single centre | 83 | Food record |
| 96 | Naughton, 2021,  UK3(111) | Cross sectional | Single centre | 68  601 | Estimated plate waste |
| 97 | Navarro, 2015,  Israel(112) | Pre and post study | Single centre | 206 | Digital photography  (estimated plate waste) |
| 98 | Neaves, 2021, Australia(113) | Pre and post study | Single centre | 210 | Estimated plate waste |
| 99 | Nematy, 2006,  UK2(114) | Cross sectional | Single centre | 25 | Food record |
| 100 | Norshariza, 2017, Malaysia(115) | Cross sectional | Single centre | 97 | 24-hour recall |
| 101 | Ofei, 2015,  Denmark(116) | Cross sectional | Single centre | 71 | DIMS-digital intake  monitoring tool (automated) |
| 102 | Ofei, 2018,  Denmark(117) | Cross sectional | Single centre | 17 | DIMS-digital intake  monitoring tool  (automated) |
| 103 | Oldknow, 2019,  UK2(118) | Cross sectional | Single centre | 6 | Digital Photography  (estimated plate waste) |
| 104 | Osborne, 2021, Australia(119) | Prospective cohort | Single centre | 45 | Food record |
| 105 | Ozturek Aribuka, 2012, Turkey(120) | Cross sectional | Single centre | 211 | 24-hour recall |
| 106 | Paillaud, 2006, France(121) | Cross sectional | Single centre | 88 | Estimated plate waste |
| 107 | Palmer, 2014, Australia(122) | Cross sectional | Single centre | 15 | Food record |
| 108 | Papathanil, 2021, Switzerland(123) | Cross sectional | Single centre | 28 | Automated |
| 109 | Papier, 2022,  Israel(124) | Prospective cohort | Single centre | 895 | Estimated plate waste |
| 110 | Paulsen, 2018, Norway(125) | Cross sectional | Single centre | 32 | App  (automated) |
| 111 | Pedersen, 2003, Denmark(126) | Pre and post study | Single centre | 253  2421 | Food record |
| 112 | Porter, 2022, Australia(127) | Cross sectional | Single centre | 77 | Estimated plate waste |
| 113 | Pourhassan, 2020, Germany(128) | Cross sectional | Single centre | 200 | Plate diagram  (estimated plate waste) |
| 114 | Prockman, 2015, Brazil(129) | Cross sectional | Single centre | 32 | Food record |
| 115 | Pullen, 2017,  UK2(130) | Cross sectional | Single centre | 93 | 24-hour recall |
| 116 | Raffoul, 2006, Switzerland(131) | Non randomised trial design | Single centre | 11  91 | Estimated plate waste |
| 117 | Roberts, 2003,  UK2(132) | RCT | Single centre | 381  961 | Weighed plate waste |
| 118 | Roberts, 2017,  UK2(133) | Pre and post study | Single centre | 531  4071 | Weighed food records |
| 119 | Roberts, 2019, Australia2(134) | Pre and post study | Single centre | 207  1271 | Estimated plate waste |
| 120 | Roberts, 2021, Australia(135) | Non randomised trial design | Single centre | 71  491 | Electronic food service (automated) |
| 121 | Rosenburger, 2019, Switzerland(136) | Cross sectional | Single centre | 330 | Food record |
| 122 | Rufenacht, 2010, Switzerland(137) | RCT | Single centre | 53 | Weighed plate waste |
| 123 | Samadi, 2016,  Iran(171) | Case- control | Single centre | 180 | Food record |
| 124 | Sanson, 2018,  Italy(138) | Cross sectional | Single centre | 89 | Digital photography  (estimated plate waste) |
| 125 | Sathiaraj, 2018,  India(139) | Cross sectional | Single centre | 160 | 24-hour recall |
| 126 | Sauereessig, 2022, Brazil(140) | Cross sectional | Single centre | 106  941 | Food intake visual scale  (estimated plate waste) |
| 127 | Shahar,2022, Malaysia(141) | Cross sectional | Single centre | 120 | Weighed food records |
| 128 | Soric, 2019,  Croatia(142) | RCT | Single centre | 67 | 24-hour recall |
| 129 | Starke, 2011, Switzerland(143) | RCT | Single centre | 134 | Estimated plate waste |
| 130 | Steiber, 2002,  US3(144) | Cross sectional | Single centre | 42 | Food record |
| 131 | Sundvall, 2005, Sweden(145) | Cross sectional | Single centre | 30 | Food record |
| 132 | Susetyowati, 2017, Indonesia(146) | Cross sectional | Single centre | 105 | Food record |
| 133 | Tan, 2016,  Singapore(148) | Prospective cohort | Single centre | 80 | 24-hour recall |
| 134 | Tan, 2021,  Australia(147) | Cross sectional | Single centre | Reported at meal level | Meal Intake Points  (estimated plate waste) |
| 135 | Tavares, 2007, Portugal(149) | Cross sectional | Single centre | 258 | 24-hour recall |
| 136 | Theron, 2021,  South Africa(150) | Cross sectional | Multi centre | 128 | Weighed food records |
| 137 | Trobello, 2022, Norway(151) | Cross Sectional | Single centre | 350 | 24-hour recall |
| 138 | Tonosaki, 2012, Japan(152) | Cross sectional | Single centre | 25 | Estimated plate waste |
| 139 | Tulloch**,** 2019, Canada(153) | Cross sectional | Single centre | 33 | My meal intake tool  (estimated plate waste) |
| 140 | van Bokhorst–de van der Schueren, 2012, Netherlands(154) | Cross sectional | Single centre | 107 | Weighed plate waste |
| 141 | Vermeeran, 2004, Netherlands(155) | RCT | Multi centre | 56 | Food record |
| 142 | Walton, 2008, Australia(156) | Cross sectional | Single centre | 9 | Weighed plate waste |
| 143 | Ward, 2013,  UK2(157) | Pre and post study | Single centre | Reported at meal level | Estimated plate waste |
| 144 | Weijzen, 2020, Netherlands(158) | Cross sectional | Single centre | 102 | Weighed food record |
| 145 | Wilson, 2000,  UK2(159) | Pre and post study | Single centre | 101 | Weighed plate waste |
| 146 | Winzer, 2018,  Austria(165) | Cross sectional | Single centre | 20 | Digital photography  (estimated plate waste) |
| 147 | Wright, 2005,  UK2(161) | Cross sectional | Single centre | 55 | Weighed food records |
| 148 | Wright, 2008,  UK2(162) | Interventional study with historical control | Single centre | 46 | Food record |
| 149 | Van Wymelbeke, 2009, France(163) | Cross sectional | Single centre | 30  241 | Weighed plate waste |
| 150 | Yang, 2019,  Taiwan(164) | RCT | Single centre | 82 | 24-hour recall |
| 151 | Yoshida, 2020,  Japan(165) | Prospective cohort | Single centre | 207 | Estimated plate waste |
| 152 | Young, 2013, Australia(168) | Prospective cohort | Single centre | 134 | Estimated plate waste |
| 153 | Young, 2016, Australia(166) | Cross sectional | Single centre | Reported at meal level | Estimated plate waste |
| 154 | Young, 2018, Australia(167) | Cross sectional | Single centre | 320 | Estimated plate waste |
| 155 | Zisberg, 2015,  Israel(169) | Prospective cohort | Single centre | 822 | 24-hour recall |

1Refers to number of individuals with dietary intake data where this was reported separately within the publication; 2 UK: United Kingdom; 3 US: United states.