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|  | **Inclusion Criteria** | **Exclusion Criteria** | **Justification** |
| **S**ample | Adult women aged 18-70 years Living in urban Africa | Aged <18 or >70 yearsRural settingsExclusively maleClinical diagnosis not directly related to NRNCDs | Studies with populations <18 and >70 and in rural settings are likely to produce determinants of under-nutrition which is not of interest in the context of NCDsThis review aimed to investigate determinants in the general population rather than those with specific medical conditions |
| **P**henomenon of **I**nterest | Determinants of diet and dietary behaviour | SupplementationFortification | The definition of determinants of diet and dietary behaviour is deliberately vague to allow for adequate mapping of the available literature on the topic |
| **D**esign | Randomised controlled trials (RCTs)Cohort studiesCase-control studiesEcological/observational studiesReviews and meta-analyses | Purely descriptive food consumption studies not examining determinants of diet and dietary behaviour | Mapping of the available research favours the inclusion of all available types of research |
| **E**valuation | Effect of the determinant(s) on diet and/or dietary behaviour | Studies focused on the relationship between diet and disease The dietary behaviour investigated is women feeding their families only | The aim of this review is to map the drivers of diet and dietary behaviour, rather than their effect on diseaseThis review is investigating the dietary behaviour and diet of the women themselves, not their families and/or children |
| **R**esearch type | Mixed methodologies (qualitative and quantitative) | None | Allows for an accurate depiction of available research on the topic |

**Supplemental Table 1: Eligibility Criteria.** Original to this manuscript

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| 1 | (wom#n or female$).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] |
| 2 | Women/ |
| 3 | (Africa$ or Ethiopia or Nigeria or Egypt or Democratic Republic of the Conga or Republic of the Congo or Congo or South Africa or Tanzania or Kenya or Algeria or Sudan or Uganda or Morocco or Ghana or Mozambique or Angola or Ivory Coast or Madagascar or Cameroon or Niger or Burkina Faso or Mali or Malawi or Zambia or Senegal or Chad or Zimbabwe or South Sudan).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] |
| 4 | (Rwanda or Tunisia or Somalia or Guinea or Benin or Burundi or Togo or Eritrea or Libya or Sierra Leone or Central African Republic or Liberia or Mauritania or Gabon or Namibia or Botswana or Gambia or Equatorial Guinea or Lesotho or Guinea-Bissau or Mauritius or Swaziland or Djibouti or Reunion or Comoros or Cape Verde or Western Sahara or Sao Tome or Principe or Mayotte or Seychelles or Saint Helena or Ascension or Tristan da Cunha).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] |
| 5 | Africa, Western/ or Africa, Central/ or "Africa South of the Sahara"/ or exp Africa/ or Africa, Northern/ or South Africa/ or Africa, Eastern/ or Africa, Southern/ |
| 6 | "Social Determinants of Health"/ |
| 7 | (determinant$ or correlate$ or factor$ or predict$ or associate$ or interaction or influence$ or increase$ or reduce$ or barrier$ or prevent$ or affect$ or intervention or initiative or polic$).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] |
| 8 | exp Overweight/ or exp Obesity/ |
| 9 | Nutritional Status/ or Diet/ |
| 10 | exp Food/ |
| 11 | (diet$ or food$ or nutrition or nutritional stat$).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] |
| 12 | Food Habits/ |
| 13 | Feeding Behaviour/ |
| 14 | Food Preferences/ |
| 15 | exp Meals/ or Eating/ |
| 16 | Energy Intake/ |
| 17 | (dietary behaviour$ or dietary intake or food group$ or food item$ or food habit$ or eating behaviour or feeding behaviour$ or food choice$ or food preference$ or energy intake or meal$ or eating).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] |
| 18 | 1 or 2 |
| 19 | 3 or 4 or 5 |
| 20 | 6 or 7 |
| 21 | 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 |
| 22 | 8 and 18 and 19 and 20 and 21 |
| 23 | limit 22 to (humans and yr="1971 -Current" and (english or french)) |

**Supplemental Table 2: Example search strategy from MEDLINE via OvidSP 1946-2015 week 15.** Date limit: 1971-present (2015 week 15). Original to this manuscript.

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| **Study** | **Determinant(s) measured** | **How determinant(s) measured** | **Dietary behaviour measured** | **How dietary behaviour measured** | **QAS\*** |
| Charlton, Brewitt, and Bourne, 2004 (29) | 1) taste2) trying to eat a healthy diet 3) habit or routine4) slimming foods | interviewer-administered questionnaire | food choice | interviewer-administered questionnaire | 75% |
| Hattingh et al., 2006 (36), 2011 (35), and 2014 (37) | 1) physical activity level 2) age  | 1) interviewer-administered questionnaire, then categorized as inactive/moderately active/highly active2) interviewer-administered questionnaire  | energy intake | quantitative FFQ, kJ | 80% |
| Jafri et al., 2013 (30) | 1) education 2) age 3) professional activity | standardized questionnaire | prevalence of fattening products consumption | standardized questionnaire | 59% |
| Landais et al., 2011 (31), 2012 (45), and 2014 (32) | 1) knowledge about fruit and vegetables 2) age 3) education 4) employment 5) economic status 6) skipping at least one daily meal 7) eating from a shared bowl | 1-4, 6-7) questionnaire 5) Economic index from data on housing and equipment at home. Split into tertiles. | 1-7) fruit and vegetable consumption 2-5) fruit and vegetable diversity | 1-7) 24 hour recall, then interview 2-5) number of different fruit/vegetables eaten, then scored | 100% |
| Mbochi et al., 2012 (33) | socio-economic status  | Interviewer-administered questionnaire: age, marital status and paritySES questions: area of residence, income status and sources, occupation, dwelling type, cooking fuel, monthly expenditure on selected items, water source and household items. Split into quintiles. | food consumption and nutrient intake | interviewer-administered FFQ, and 24 hour recall | 73% |
| Mogre, Atibilla, and Kandoh, 2013 (34) | 1) lack of time2) lack of appetite3) not feeling hungry4) too early to eat | self-administered questionnaire | Skipping/eating breakfast | self-administered questionnaire, classified as breakfast skippers/eaters if skipped/ate ≥4 breakfasts/week | 80% |
| Savy et al., 2008 (39) and Becquey et al., 2010 (40) | 1) household economic status 2) age 3) ever attended school 4) occupation 5) monthly expenditure of household for food stock 6) snacking 7) perception of quantity of diet 8) perception of quality of diet  | 1) questionnaire. Economic index from housing quality, facilities, assets, and transport. 2-8) questionnaire  | dietary diversity | qualitative 24-hour recall, coded into 22 food groups applied to two different Dietary Diversity Score classifications. | 95% |
| Sodjinou et al., 2008 (42) and 2009 (41) | 1) smoking2) alcohol consumption, 3) physical activity 4) overall lifestyle | Questionnaires, given a score for each | diet quality | 3 24-hour recalls, scored for diversity, micronutrient adequacy and healthfulness | 100% |
| Waswa, 2011 (44) | 1) body image 2) health 3) mood 4) hunger 5) perceived body image 6) knowledge of food choice 7) skipping of meals | 1-7) self-administered body image questionnaire,  | 1) nutrient intake and adequacy of food intake 2-5) adequacy of food intake 6) protein intake 7) energy intake | 1) Nutrient Intake: Food Frequency Questionnaire FFQ Adequacy of food intake: self-reported adequate or inadequate 2-5) self-reported questionnaire 6-7) intake from FFQ compared to RDA, adequate or inadequate | 82% |

**Supplemental Table 3: Individual and household level determinants. \***QAS = quality assessment score. Original to this manuscript.

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| **Study** | **Determinant(s) measured**  | **How determinant(s) measured** | **Dietary behaviour measured** | **How dietary behaviour measured** | **QAS\*** |
| Batnitzky, 2008 (28) | 1) household social roles 2) household composition | semi-structured interviews | 1) meal content (quantity and quality), snacking 2) meal content, food distribution within the household | observation | 60% |
| Charlton, Brewitt, and Bourne, 2004 (29) | What the rest of my family will eat | interviewer-administered questionnaire | degree of influence on food choice | interviewer-administered questionnaire | 75% |
| Jafri et al., 2013 (30) | marital status  | standardized questionnaire | prevalence of fattening products consumption | standardized questionnaire | 59% |
| Landais et al., 2011 (31), 2012 (45), and 2014 (32) | 1) marital status 2) number of children  | questionnaire with three domains - fruit and vegetable food based guidelines, fruit and vegetable link with NCDs, and nutrient value of fruit and vegetables.  | Daily fruit consumption, daily vegetable consumption, daily fruit and vegetable consumption Fruit diversity, vegetable diversity, fruit and vegetable diversity | Consumption: 24 hour recall followed by an interview Diversity: sum of number of different fruit/vegetables eaten, given scores | 100% |
| Rguibi and Behalsen, 2006 (38) |  marital status | interviewer-administered questionnaire | diet practices used to gain weight | interviewer-administered questionnaire | 55% |
| Savy et al., 2008 (39) and Becquey et al., 2010 (40) | 1) marital status 2) attention and support for women from others in household | 1) questionnaire 2) questionnaire, Care For Women index from power of decision-making, financial autonomy, verbal/physical ill-treatment, and general consideration of the woman in her household. | dietary diversity | qualitative 24-hour recall, coded into 22 food groups. Groups then applied to two Dietary Diversity Score classifications – DDS9 and DDS 22 | 95% |
| Waswa, 2011 (45) | 1) peer influence 2) parental influence  | self-administered questionnaire | influence on adequacy of food intake  | self-reported questionnaire  | 82% |

**Supplemental Table 4: Social level determinants.** \*QAS = quality assessment score. Original to this manuscript.

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| **Study** | **Determinant(s) measured** | **How determinant(s) measured** | **Dietary behaviour measured** | **How dietary behaviour measured** | **QAS\*** |
| Landais et al., 2011 (31), 2012 (45), and 2014 (32) | 1) living area (modern, medina, precarious) 2) frequency of out-of-home eating  | questionnaire with three domains – food guidelines, link with NCDs, and nutrient value  | 1) fruit and vegetable intake only2) daily fruit consumption, daily vegetable consumption, daily fruit and vegetable consumption Fruit diversity, vegetable diversity, fruit and vegetable diversity | Consumption: 24 hour recall followed by interviewDiversity: number of different fruit/vegetables eaten, then scored | 100% |
| Savy et al., 2008 (39) and Becquey et al., 2010 (40) | 1) consumption of meals outside home 2) household sanitation  | 1) questionnaire 2) questionnaire, Sanitation Index from drinking water, toilets, evacuation of rubbish, waste water, and spot-check of cleanliness   | dietary diversity | qualitative 24-hour recall, coded into food groups. Groups then applied to two Dietary Diversity Scores. | 95% |
| Waswa, 2011 (44) | food availability  | self-administered questionnaire | influence on adequacy of food intake  | self-reported questionnaire  | 82% |

**Supplemental Table 5: Physical level determinants. \***QAS = quality assessment score. Original to this manuscript.

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| **Study** | **Determinant(s) measured** | **How determinant(s) measured** | **Dietary behaviour measured** | **How dietary behaviour measured** | **Quality assessment score** |
| Charlton, Brewitt, and Bourne, 2004 (29) | 1) price of food2) quality or freshness of food3) quick and easy to make foods4) presentation or packing 5) cultural/religious belief | interviewer-administered questionnaire | degree of influence on food choice | interviewer-administered questionnaire | 75% |
| Mogre, Atibilla, and Kandoh, 2013 (34) | religious reasons | self-administered questionnaire | breakfast eating patterns (skipping or eating) | self-administered questionnaire, classified as breakfast skippers/eaters if skipped/ate ≥4 breakfasts/week | 80% |
| Rguibi and Behalsen, 2006 (38) |  Saharawi culture  | communication skills in a specific dialect, traditional clothing, history of family's residence  | diet practices used to gain weight | interviewer-administered questionnaire | 55% |
| Savy et al., 2008 (39) and Becquey et al., 2010 (40) |  religion  | questionnaire  | 2-14) dietary diversity | qualitative 24-hour recall, coded into food groups. Groups then applied to two Dietary Diversity Scores. | 95% |
| Van Zyl, Steyn, and Marais, 2010 (43) | media messages | interviewer-administered questionnaire | fast food intake | interviewer-administered questionnaire | 75% |
| Waswa, 2011 (44) | 1) food prices 2) cultural beliefs 3) religious beliefs 4) media  | self-administered questionnaire | influence on adequacy of food intake  | self-reported questionnaire  | 82% |

**Supplemental Table 6: Macro-level determinants**. QAS = quality assessment score. Original to this manuscript.