

Supplementary Table 2: Risk of bias among eligible studies (n=22)

Hoy et al item*

| No. | Study | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | Total | 10 |
|-----|---|---|---|---|---|---|---|---|---|---|-------|--------|
| 1 | Ahluwalia N, Ferrières J, Dallongeville J, Simon C, Ducimetière P, Amouyel P, Arveiler D, Ruidavets JB. Association of macronutrient intake patterns with being overweight in a population-based random sample of men in France. <i>Diabetes & metabolism</i> . 2009 Apr 30;35(2):129-36. | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 7 | Low |
| 2 | Austin GL, Ogden LG, Hill JO. Trends in carbohydrate, fat, and protein intakes and association with energy intake in normal-weight, overweight, and obese individuals: 1971–2006. <i>The American journal of clinical nutrition</i> . 2011 Apr 1;93(4):836-43. | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 8 | Low |
| 3 | Bowman SA, Spence JT. A comparison of low-carbohydrate vs. high-carbohydrate diets: energy restriction, nutrient quality and correlation to body mass index. <i>Journal of the American College of Nutrition</i> . 2002 Jun 1;21(3):268-74. | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 6 | Medium |
| 4 | Choi J, Se-Young O, Lee D, Tak S, Hong M, Park SM, Cho B, Park M. Characteristics of diet patterns in metabolically obese, normal weight adults (Korean National Health and Nutrition Examination Survey III, 2005). <i>Nutrition, Metabolism and Cardiovascular Diseases</i> . 2012 Jul 31;22(7):567-74. | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | Low |
| 5 | Garaulet M, Marin C, Perez-Llomas F, Canteras M, Tebar FJ, Zamora S. Adiposity and dietary intake in cardiovascular risk in an obese population from a Mediterranean area. <i>Journal of physiology and biochemistry</i> . 2004 Mar 1;60(1):39-49. | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 3 | High |
| 6 | Hartline-Grafton HL, Rose D, Johnson CC, Rice JC, Webber LS. Are school employees role models of healthful eating? Dietary intake results from the ACTION worksite wellness trial. <i>Journal of the American Dietetic Association</i> . 2009 Sep 30;109(9):1548-56. | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 7 | Low |
| 7 | Jackson M, Walker S, Cruickshank JK, Sharma S, Cade J, Mbanya JC, Younger N, Forrester TF, Wilks R. Diet and overweight and obesity in populations of African origin: Cameroon, Jamaica and the UK. <i>Public health nutrition</i> . 2007 Feb;10(2):122-30. | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 8 | Low |
| 8 | Kim J, Jo I, Joung H. A rice-based traditional dietary pattern is associated with obesity in Korean adults. <i>Journal of the Academy of</i> | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 8 | Low |

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| | Nutrition and Dietetics. 2012 Feb 29;112(2):246-53. | | | | | | | | | | | | |
| 9 | Langlois K, Garriguet D, Findlay L. Diet composition and obesity among Canadian adults. Health Reports. 2009 Dec 1;20(4):11. | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 8 | Low | |
| 10 | Lin H, Bermudez OI, Tucker KL. Dietary patterns of Hispanic elders are associated with acculturation and obesity. The Journal of nutrition. 2003 Nov 1;133(11):3651-7. | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 6 | Medium | |
| 11 | Lyles III TE, Desmond R, Faulk LE, Henson S, Hubbert K, Heimburger DC, Ard JD. Diet variety based on macronutrient intake and its relationship with body mass index. Medscape General Medicine. 2006;8(3):39. | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 4 | Medium | |
| 12 | Ma Y, Olendzki B, Chiriboga D, Hebert JR, Li Y, Li W, Campbell M, Gendreau K, Ockene IS. Association between dietary carbohydrates and body weight. American journal of epidemiology. 2005 Feb 15;161(4):359-67. | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 6 | Medium | |
| 13 | Maskarinec G, Takata Y, Pagano I, Carlin L, Goodman MT, Marchand L, Nomura AM, Wilkens LR, Kolonel LN. Trends and dietary determinants of overweight and obesity in a multiethnic population. Obesity. 2006 Apr 1;14(4):717-26. | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | Low | |
| 14 | Meng P, Jia L, Gao X, Liao Z, Wu M, Li S, Chen B. Overweight and obesity in Shanghai adults and their associations with dietary patterns. Wei sheng yan jiu= Journal of hygiene research. 2014 Jul;43(4):567-72. | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 7 | Low | |
| 15 | Merchant AT, Vatanparast H, Barlas S, Dehghan M, Shah SM, De Koning L, Steck SE. Carbohydrate intake and overweight and obesity among healthy adults. Journal of the American Dietetic Association. 2009 Jul 31;109(7):1165-72. | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 7 | Low | |
| 16 | Miller WC, Lindeman AK, Wallace J, Niederpruem M. Diet composition, energy intake, and exercise in relation to body fat in men and women. The American journal of clinical nutrition. 1990 Sep 1;52(3):426-30. | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 6 | Medium | |
| 17 | Mokhtar N, Elati J, Chabir R, Bour A, Elkari K, Schlossman NP, Caballero B, Aguenau H. Diet culture and obesity in northern Africa. The Journal of nutrition. 2001 Mar 1;131(3):887S-92S. | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 7 | Low | |
| 18 | Murtaugh, M. A., Herrick, J. S., Sweeney, C., Baumgartner, K. B., Guiliano, A. R., Byers, T., & Slattery, M. L. (2007). Diet composition and risk of overweight and obesity in women living in the southwestern United | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 7 | Low | |

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| | States. Journal of the American Dietetic Association, 107(8), 1311-1321 | | | | | | | | | | | |
| 19 | Rathnayake KM, Roopasingam T, Dibley MJ. High carbohydrate diet and physical inactivity associated with central obesity among premenopausal housewives in Sri Lanka. BMC research notes. 2014 Aug 23;7(1):564. | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 5 | Medium |
| 20 | Song, S., Lee, J. E., Song, W. O., Paik, H. Y., & Song, Y. (2014). Carbohydrate intake and refined-grain consumption are associated with metabolic syndrome in the Korean adult population. Journal of the Academy of Nutrition and Dietetics, 114(1), 54-62 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 8 | Low |
| 21 | Yang, E. J., Chung, H. K., Kim, W. Y., Kerver, J. M., & Song, W. O. (2003). Carbohydrate intake is associated with diet quality and risk factors for cardiovascular disease in US adults: NHANES III. Journal of the American College of Nutrition, 22(1), 71-79 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 8 | Low |
| 22 | Youn, S., Woo, H. D., Cho, Y. A., Shin, A., Chang, N., & Kim, J. (2012). Association between dietary carbohydrate, glycemic index, glycemic load, and the prevalence of obesity in Korean men and women. Nutrition research, 32(3), 153-159 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 6 | Medium |

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| * | Hoy et al item description |
| 1 | Was the study's target population a close representation of the national population in relation to relevant variables, e.g. age, sex, occupation |
| 2 | Was the sampling frame a true or close representation of the target population? |
| 3 | Was some form of random selection used to select the sample, OR, was a census undertaken? |
| 4 | Was the likelihood of non-response bias minimal? |
| 5 | Were data collected directly from the subjects (as opposed to a proxy)? |
| 6 | Was an acceptable case definition used in the study? |
| 7 | Was the study instrument that measured the parameter of interest (e.g. prevalence of low back pain) shown to have reliability and validity (if necessary)? |
| 8 | Was the same mode of data collection used for all subjects? |
| 9 | Were the numerator(s) and denominator(s) for the parameter of interest appropriate |
| 10 | Summary on the overall risk of study bias (0-3: high, 4-6: moderate, 7-9: low) |