Supplemental table 1. Literature search strategies.

18. 5 and 11 and 17

Embase Run 5th June 2013 exp cohort analysis/ epidemiology/ cohort\$.tw. 4. case control study/ 5. or/1-46. diabetes mellitus/ 7. (type 2 adj3 diabet\$).tw. 8. (type ii adj3 diabet\$).tw. 9. non insulin dependent diabetes mellitus/ 10. (inciden\$ adj3 diabet\$).tw. 11. or/6-10 12. carbonated beverage/ 13. "soft drink".tw. 14. ((soda or carbonated or sweet\$ or sugar\$) adj3 beverage\$).tw. 15. ((soda or carbonated or sweet\$ or sugar\$) adj3 drink\$).tw. 16. ((carbonated or sweet\$ or sugar\$) adj3 soda\$).tw. 17. or/12-16

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- exp cohort studies/
- cohort\$.tw.
- 3. epidemiologic methods/
- 4. or/1-3
- 5. carbonated beverages/
- 6. "soft drink".tw.
- 7. ((soda or carbonated or sweet\$ or sugar\$) adj3 beverage\$).tw.
- 8. ((soda or carbonated or sweet\$ or sugar\$) adj3 drink\$).tw.
- 9. ((carbonated or sweet\$ or sugar\$) adj3 soda\$).tw.
- 10. Diabetes Mellitus, Type 2/
- 11. (type 2 adj3 diabet\$).tw.
- 12. (type ii adj3 diabet\$).tw.
- 13. (inciden\$ adj3 diabet\$).tw.
- 14. or/5-9
- 15. or/10-13
- 16. 4 and 14 and 15
- 17. limit 16 to english language

Supplemental table 2. Risk of bias table for publications identified in literature search, using the Newcastle-Ottawa quality assessment scale for studies included in meta-analysis of sugar sweetened and artificially sweetened soft drinks and type 2 diabetes.

| Author, year, region | Study name | Selection* | Comparability† | Outcome‡ |
|--|---|------------|----------------|----------|
| Schulze <i>et al.</i> , 2004, USA{Schulze, 2004 84 /id} | Nurses' Health Study II | *** | ** | * |
| Paynter <i>et al.</i> , 2006, USA{Paynter, 2006 72 /id} | Atherosclerosis Risk in Communities Study | *** | ** | ** |
| Palmer <i>et al.</i> , 2008, USA{Palmer, 2008 67 /id} | Black Women's Health Study | ** | ** | *** |
| Bhupathiraju <i>et al.</i> , 2013, USA{Bhupathiraju, 2013 11 /id} | Health Professionals Follow-up | *** | ** | *** |
| Bhupathiraju <i>et al.</i> , 2013, USA{Bhupathiraju, 2013 11 /id} | Nurses Health Study I | *** | ** | ** |
| The InterAct consortium, 2013, Europe{The InterAct Consortium, 2013 2 /id} | EPIC-InterAct | **** | ** | *** |

^{*} Stars awarded for exposed participants being representative of all type 2 diabetics, sampling of unexposed participants from the same community, validated dietary assessment covering at least 100 separate food items for precision, and demonstration type 2 diabetes was not present at the start of the study.

[†] Stars awarded for adjustment for age and for smoking.

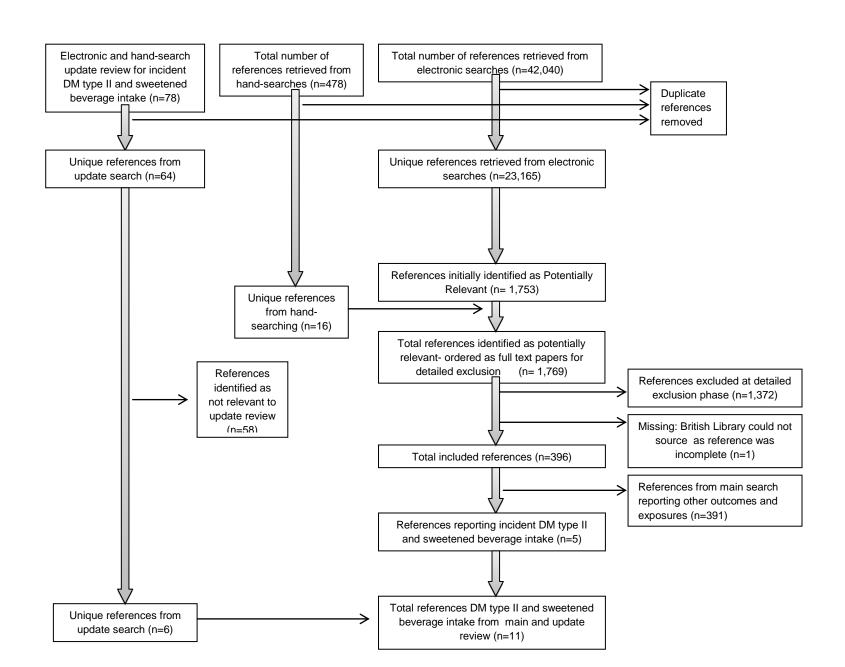
[‡] Stars awarded for an objective outcome assessment, based on medical records, self-report of objective medical details, or confirmed in medical records, for follow-up of 10 years or more, and for at least 70% followed-up.

Supplemental table 3. Subgroup analyses for sugar sweetened soft drinks and type 2 diabetes.

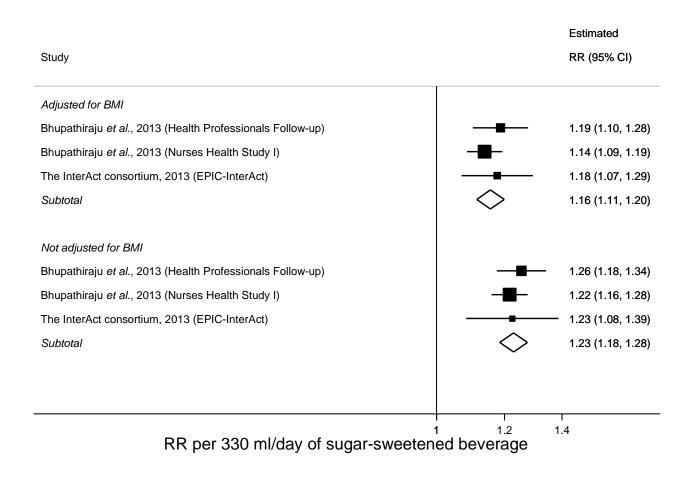
| | | RR (95% | I^2 | n | P _{het} a | P_{het}^{b} |
|--------------------------------|-----------------------------|------------|-------------|---|--------------------|---------------|
| subjects' gender | Male | 1.26 (1.18 | , 1.34) | 1 | | 0.6 |
| | Mixed | 1.11 (0.92 | , 1.34) 83% | 2 | 0.01 | |
| | Female | 1.24 (1.14 | , 1.35) 80% | 3 | 0.007 | |
| subjects' gender in same study | Male | 1.01 (0.89 | , 1.14) | 1 | | |
| | Female | 1.02 (0.90 | , 1.16) | 1 | | |
| length of follow-up | <10 years | 1.22 (0.84 | , 1.77) 94% | 2 | < 0.001 | |
| | ≥10 years | 1.20 (1.16 | , 1.25) 31% | 4 | 0.2 | 0.8 |
| geographic location | Americas | 1.20 (1.11 | , 1.29) 84% | 5 | < 0.001 | |
| | EU | 1.23 (1.08 | , 1.39) | 1 | | |
| | Other | | | | | |
| mean intake in cohort | <100 ml/day | 1.28 (1.15 | , 1.42) 66% | 3 | 0.05 | |
| | 100+ ml/day | 1.14 (1.03 | , 1.26) 86% | 3 | < 0.001 | 0.2 |
| mean BMI in cohort | <25 kg/m ² | 1.27 (1.18 | , 1.38) 67% | 3 | 0.05 | |
| | \geq 25 kg/m ² | 1.13 (1.02 | , 1.24) 77% | 3 | 0.01 | 0.2 |
| adjusted for age | yes | 1.20 (1.12 | , 1.29) 80% | 6 | < 0.001 | |
| | no | • | , | | | |
| adjusted for alcohol | yes | 1.22 (0.98 | , 1.51) 90% | 3 | < 0.001 | |
| | no | 1.20 (1.15 | , 1.26) 53% | 3 | 0.1 | 1.0 |
| adjusted for anthropometry | yes | · | | | | |
| 1 . | no | 1.20 (1.12 | , 1.29) 80% | 6 | < 0.001 | |
| adjusted for energy intake | yes | 1.22 (0.98 | , 1.51) 90% | 3 | < 0.001 | |
| | no | 1.20 (1.15 | , 1.26) 53% | 3 | 0.1 | 1.0 |
| adjusted for family history | yes | | , 1.29) 84% | 5 | < 0.001 | |
| | no | 1.23 (1.08 | , 1.39) | 1 | | 0.9 |
| adjusted for physical activity | yes | 1.20 (1.12 | , 1.29) 80% | 6 | < 0.001 | |
| | no | ` | , | | | |
| adjusted for gender | yes | 1.23 (1.17 | , 1.30) 65% | 5 | 0.02 | |
| | no | , | , 1.11) | 1 | | 0.08 |
| adjusted for smoking | yes | , | , 1.29) 80% | 6 | < 0.001 | |
| | no | | , , | | | |

^a P for heterogeneity within each subgroup.
^b P for heterogeneity between each subgroup

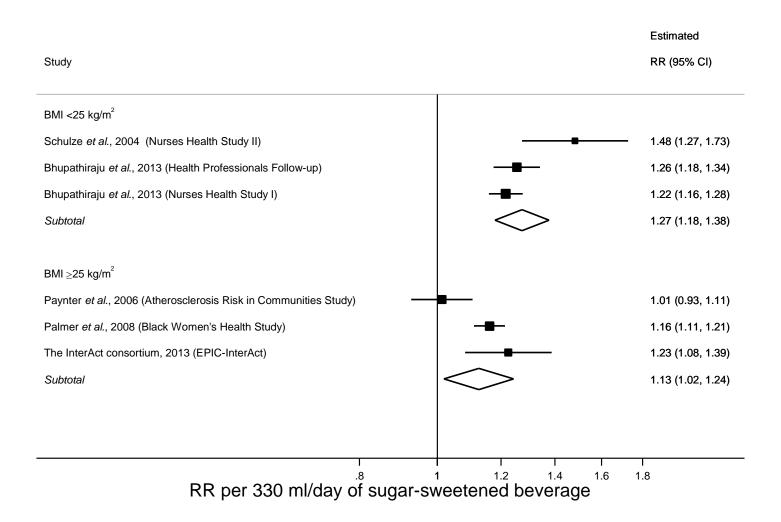
Supplemental figure 1. Flow chart of literature searches and study selection.



Supplemental figure 2. Forest plot of sugar sweetened soft drinks and risk of type 2 diabetes with and without adjustment for BMI, for those studies presenting both results.



Supplemental figure 3. Forest plot of sugar sweetened soft drinks and risk of type 2 diabetes stratified by mean baseline BMI.



Supplemental figure 4. Funnel plot for sugar sweetened soft drinks and risk of type 2 diabetes.

