# **S9 Table.** Model Inputs for Probabilistic Sensitivity Analyses**.a**

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| --- | --- | --- | --- |
| **Inputs** | **Mean value (SD)** | **Distribution** | **Source** |
| **Costs** b |  |  |  |
| One time implementation cost | 30,521,533 (7,630,383) | Gamma | HIP Final Report[[2](#_ENREF_25)] |
| One time infrastructure cost | 69,684,913 (17,421,228) | Gamma | HIP Final Report[[2](#_ENREF_25)] |
| Annual program management costs | 5,638,225 (1,409,556) | Gamma | Estimation based on the cost of the HIP evaluation |
| Unit food costs |  |  |  |
| Fruits ($/100g) | 0.33680 (0.084) | Gamma | USDA Economic Research Service (ERS) Quarterly Food-at-home Price Database[5] |
| Vegetables ($/100g) | 0.28901 (0.072) | Gamma |
| Whole grains ($/100g) | 0.6442 (0.003) | Gamma |
| Nuts ($/100g) | 0.7632 (0.191) | Gamma |
| Fish ($/100g) | 1.15186 (0.288) | Gamma |
| Plant-based oils ($/100g) | 0.75732 (0.189) | Gamma |
| SSBs ($/8 oz) | 0.5034 (0.126) | Gamma | Powell et al. 2012[6] |
| Junk food ($/100g) | 0.94408 (0.236) | Gamma | ERS Quarterly Food-at-home Price Database[5] |
| Processed meat ($/100g) | 0.61435(0.154) | Gamma | Consumer Expenditure Survey[7]; USDA SNAP report[8] |
| **Change in intake for a 30% price change for base case c** |  |  |  |
| Fruits | 23.4% (6.3) | Normal | HIP[3,12] |
| Vegetables | 19.0% (5.1) | Normal | HIP[3,12] |
| Whole grains | 24.2% (6.5) | Normal | HIP[3,12] |
| Nuts | 23.9% (6.4) | Normal | HIP[3,12] |
| Fish | 19.0% (5.1) | Normal | HIP[3,12] |
| Plant-based oils | 20.3% (5.5) | Normal | HIP[3,12] |
| SSBs | -13.3% (-3.7) | Normal | Afshin et al. 2017[4] |
| Processed meats | -16.9% (-2.7) | Normal | Afshin et al. 2017[4] |
| Junk food  | -17.4% (-2.8) | Normal | Afshin et al. 2017[4] |
| **Diet-CVD etiologic effects (RRs)** | Table S3 | Log-normal | Micha et al. 2017[13]Lu et al., 2014[14] |
| **Procedural adverse events** |
| Patients with adverse events, mean % |
|  Major | 0.006 (0.0003) | Beta | Zhang et al. 2013[15] |
| Probability major adverse event is fatal, mean % | 0.09 (0.0045) | Beta | Alsheikh-Ali et al. 2005 [16] |
| **CVD healthcare costs** |
|  General practitioner screening visit | 79 (7.67) | Gamma | RBRVS[17] |
|  Cholesterol laboratory test | 37 (5.83) | Gamma | RBRVS[17] |
|  **Acute** |
|  Cardiac arrest | 20,242 (963.55) | Gamma | O’Sullivan et al. 2011[11] |
|  Fatal myocardial infarction | 18,129 (862.95) | Gamma | O’Sullivan et al. 2011[11] |
|  Nonfatal myocardial infarction | 65,334 (3,100) | Gamma | O’Sullivan et al. 2011[11] |
|  Angina | 30,607 (1,456) | Gamma | O’Sullivan et al. 2011[11] |
|  Fatal stroke | 11,183 (532.35) | Gamma | O’Sullivan et al. 2011[11] |
|  Nonfatal stroke | 21,542 (1,025.45) | Gamma | O’Sullivan et al. 2011[11] |
|  Coronary artery bypass grafting | 38,730 (1,843.6) | Gamma | O’Sullivan et al. 2011[11] |
|  Percutaneous coronary  angioplasty | 36,493 (1737.1) | Gamma | O’Sullivan et al. 2011[11] |
|  Post-first-year annual cost |
|  CHD | 3,362(533.67) | Gamma | Lee et al., 2010[9] |
|  Stroke | 2,222 (352.5) | Gamma | Pignone et al. 2006[10] |
| **Informal healthcare costs** |
|  Travel costs per outpatient visit  | 8.8 (0.42) | Gamma | Russel et al. 2008[18] |
|  Wait-time costs per outpatient visit | 10.6 (0.504) | Gamma | Russel et al. 2008[18] |
| **Utility weights** |  |  |  |
| Disease free | 1 | Beta | Assumption |
| Cardiac arrest | 0.808 (0.0404) | Beta | Sullivan et al. 2006[[1](#_ENREF_2)] |
| Myocardial infarction | 0.778(0.0389) | Beta | Sullivan et al. 2006[[1](#_ENREF_2)] |
| Angina | 0.768 (0.0384) | Beta | Sullivan et al. 2006[[1](#_ENREF_2)] |
| Stroke | 0.768 (0.0384) | Beta | Sullivan et al. 2006[[1](#_ENREF_2)] |

Abbreviations: SSB, sugar-sweetened beverages; CHD, coronary heart disease; CVD, cardiovascular disease; RBRVS, resource-based relative value scale.

a Because the CVD-PREDICT model reports the average pooled population and stratum effects for each microsimulation, potential variation related to individual-level uncertainty in health state transitions was not incorporated and would have little influence on the pooled average findings.

b SDs for costs were defined as 25% of the central cost estimate.

c Based on the Healthy Incentives Pilot (HIP) intervention trial or meta-analysis of intervention and prospective observational studies.

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