Background

Cardiovascular disease (CVD) mortality burdens remain large and unequal in the US, and much is attributable to poor diets. Few data exist regarding the potential population level impact upon disparities of policies to improve diet such as the Supplemental Nutrition Assistance Programme (SNAP). We aimed to estimate reductions in CVD mortality and disparities (inequalities) achievable in the US population up to 2030 through dietary policies.

Methods

We developed a US IMPACT Food Policy Model to estimate the number of deaths prevented or postponed (DPPs) achievable with four scenarios: a national Fruit & Vegetables (F&V) mass media campaign (MMC), F&V price reductions of 10% universally and 30% to SNAP participants, and universal SSB price increase of 10%. We stratified the US population by SNAP eligibility and participation. Probabilistic sensitivity analyses were conducted.

Results

A universal 10% price reduction could prevent the most deaths, approximately 88,000 DPPs by 2030. This compares with approximately 28,000 DPPs generated through a 1-year MMC, or 29,000 DPPs by a 10% SSB price increase.

A 30% F&V price reduction for SNAP participants could result in approximately 27,000 DPPs and also achieve the biggest reduction in disparities between SNAP participants and ineligible population.

Conclusions
Fiscal strategies targeting diet could contribute to reduce the unequal cardiovascular mortality burden in the US. All four dietary policies would be effective. A universal 10% reduction in fruit and vegetable price might save most lives, while a targeted, 30% price reduction for SNAP participants could most reduce disparities.