## Equation 1– Projected gastric cancer mortality from historical mortality data

|  |  |  |
| --- | --- | --- |
| **Table 1. Equation Components and their Definitions** | | |
| **Component** | **Definition** | **Assumed values** |
|  | Number of deaths from gastric cancer. | None (outcome of model) |
|  | Five-year age group | USER-DEFINED  <40, 40-44, …, 85+ |
|  | Racial/ethnic group | USER-DEFINED  Non-Hispanic White, Non-Hispanic Black, Non-Hispanic Native American/Alaskan Native, Non-Hispanic Asian American/Pacific Islander, Hispanic |
|  | Year of gastric cancer death | 2000-2034 |
|  | Annual percentage change in gastric cancer incidence, incidence-based mortality, or mortality. | See Supplementary Table 2 Columns C, P, and AC and Supplementary Table 3 Columns C and P |
|  | Age-specific mortality from gastric cancer. | See Supplementary Table 4 Columns P, R, and T |
|  | Proportion of gastric cancer deaths attributable to IM. | See Supplementary Table 4, Column L |
|  | Proportion of all gastric cancer cases that arose from low-risk IM among individuals who were seronegative for *H. pylori* infection. | See Supplementary Table 4, Column U |
|  | Proportion of all gastric cancer cases that arose from high-risk IM among individuals who were seronegative for *H. pylori* infection. | See Supplementary Table 4, Column V |
|  | Proportion of all gastric cancer cases that arose from low-risk IM among individuals who were seropositive for *H. pylori* infection. | See Supplementary Table 4, Column W |
|  | Proportion of all gastric cancer cases that arose from high-risk IM among individuals who were seropositive for *H. pylori* infection. | See Supplementary Table 4, Column X |
|  | Relative reduction in risk of gastric cancer mortality due to endoscopic screening. Composed of:  , the relative risk of gastric cancer assuming full compliance  , the proportion of compliance, ranging from 0-1. | USER-DEFINED |
|  | Relative reduction in risk of gastric cancer mortality due to *H. pylori* eradication treatment. Composed of:  , the relative risk of gastric cancer assuming full compliance  , the proportion of compliance, ranging from 0-1. | USER-DEFINED |
|  | The effectiveness of *H. pylori* eradication therapy. As a conservative estimate, we assume 90% effectiveness. | USER-DEFINED |