**Calculating Population Coverage**

Total population vaccination coverage for MCV1 is calculated using vaccination coverage released by WHO for 1-year-old children for 1980-2018 and United Nations’ population breakdown by country by age for 1950-present. For each country, the WHO percent vaccination for 1-year-olds for each year is multiplied by the number of people in the country whose age corresponds to being 1 during the year of vaccination (e.g. for the 2018 calculation, age 5 was vaccinated in 2014, given that 1-year-olds were vaccinated in 2018). Then, these products are summed over all ages for the total number of people in the country that have received the vaccine, and finally, divide this sum over the total population in the country to yield the estimate for the total population vaccination coverage.

WHO’s data dates back to 1980, so the percent vaccination for 1-year-olds prior to 1980 needs to be estimated. The CDC generally accepts all adults born during or before 1957 are naturally immune to measles, so the vaccination coverage for all adults in that range is effectively 100%. The measles vaccine was first introduced to the world in 1963, so the vaccination coverage for all adults born between 1957 and 1963 is effectively 0%. Thus, for the adults born between 1963 and 1980, the value was assumed to be uniform with the vaccination coverage from the earliest data point provided by WHO (1980), as this simplified computation and other methods tested (e.g. linear regression) yielded similar end results.

Note: there is WHO vaccination data but no population data from the UN for Andorra, Cook Islands, Dominica, Marshall Islands, Monaco, Nauru, Niue, Palau, Macedonia, Saint Kitts and Nevis, San Marino, and Tuvalu. The population data by age was found for Macedonia and San Marino on separate sites, so the vaccination coverages were calculated for 2018; the vaccination coverages for the other countries were not calculated.