**Supplementary table 3: Quality assessment of included studies**

1. **Mathematical models**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Betti (2022)** | | | | |
| **Item** | **Yes** | **No** | **Not clear** | **Not applicable** |
| Was at least one distribution fitted to the data? | **X** |  |  |  |
| Is the sample size used to fit the distribution reported? |  |  | **X** |  |
| Is the time frame of the data used to fit the distribution reported? | **X** |  |  |  |
| Are the countries or regions of the study sample population described? | **X** |  |  |  |
| Are the parameters of the fitted probability distribution available? | **X** |  |  |  |
| Are the central tendency measures (e.g., Mean, or median) reported? | **X** |  |  |  |
| Are variability tendency measures reported? (e.g., standard deviation, variance, coefficient of variation, range, interquartile range) |  |  |  | **X** |
| Are 95% or 90% credible or confidence intervals reported? | **X** |  |  |  |
| Was there censored data when the exposure or onset times were not known with certainty? |  |  | **X** |  |
| Was there truncated data when the exposure or onset times were not known with certainty? |  |  | **X** |  |
| Was the fitted distribution adjusted for phase bias when the outbreak was in an ascending or descending phase? |  |  | **X** |  |
| Did the authors mention applying statistical methods for adjusting other potential bias? |  | **X** |  |  |
| Is the code and data available? | **X** |  |  |  |
| **Bragazzi (2023)** | | | | |
| **Item** | **Yes** | **No** | **Not clear** | **Not applicable** |
| Was the type of distribution fitted, either the only distribution fit or the best-fit from a set of candidate distributions? | **X** |  |  |  |
| Is the sample size used to fit the distribution reported? | **X** |  |  |  |
| Is the time frame used to fit the distribution reported? | **X** |  |  |  |
| Are the countries or regions of the study sample population described? | **X** |  |  |  |
| Are the parameters of the distribution available? | **X** |  |  |  |
| Are the central tendency measures (e.g., Mean, or median) reported? | **X** |  |  |  |
| Are variability tendency measures reported? (e.g., standard deviation, variance, coefficient of variation, range, interquartile range) |  |  |  | **X** |
| Are 95% or 90% credibility or confidence intervals reported? | **X** |  |  |  |
| Was there censored data when the exposure or onset times were not known with certainty? |  |  | **X** |  |
| Was there truncated data when the exposure or onset times were not known with certainty? |  |  | **X** |  |
| Was the fitted distribution adjusted for phase bias when the outbreak was in an ascending or descending phase? |  |  | **X** |  |
| Did the authors mention applying statistical methods for adjusting other potential bias? |  | **X** |  |  |
| Is the code and data available? | **X** |  |  |  |
| **Branda (2022)** | | | | |
| **Item** | **Yes** | **No** | **Not clear** | **Not applicable** |
| Was the type of distribution fitted, either the only distribution fit or the best-fit from a set of candidate distributions? | **X** |  |  |  |
| Is the sample size used to fit the distribution reported? | **X** |  |  |  |
| Is the time frame used to fit the distribution reported? | **X** |  |  |  |
| Are the countries or regions of the study sample population described? | **X** |  |  |  |
| Are the parameters of the distribution available? | **X** |  |  |  |
| Are the central tendency measures (e.g., Mean, or median) reported? |  |  |  | **X** |
| Are variability tendency measures reported? (e.g., standard deviation, variance, coefficient of variation, range, interquartile range) | **X** |  |  |  |
| Are 95% or 90% credibility or confidence intervals reported? | **X** |  |  |  |
| Was there censored data when the exposure or onset times were not known with certainty? | **X** |  |  |  |
| Was there truncated data when the exposure or onset times were not known with certainty? | **X** |  |  |  |
| Was the fitted distribution adjusted for phase bias when the outbreak was in an ascending or descending phase? | **X** |  |  |  |
| Did the authors mention applying statistical methods for adjusting other potential bias? |  | **X** |  |  |
| Is the code and data available? | **X** |  |  |  |
| **Charniga (2022)** | | | | |
| **Item** | **Yes** | **No** | **Not clear** | **Not applicable** |
| Was the type of distribution fitted, either the only distribution fit or the best-fit from a set of candidate distributions? | **X** |  |  |  |
| Is the sample size used to fit the distribution reported? | **X** |  |  |  |
| Is the time frame used to fit the distribution reported? | **X** |  |  |  |
| Are the countries or regions of the study sample population described? | **X** |  |  |  |
| Are the parameters of the distribution available? | **X** |  |  |  |
| Are the central tendency measures (e.g., Mean, or median) reported? | **X** |  |  |  |
| Are variability tendency measures reported? (e.g., standard deviation, variance, coefficient of variation, range, interquartile range) | **X** |  |  |  |
| Are 95% or 90% credibility or confidence intervals reported? | **X** |  |  |  |
| Was there censored data when the exposure or onset times were not known with certainty? | **X** |  |  |  |
| Was there truncated data when the exposure or onset times were not known with certainty? | **X** |  |  |  |
| Was the fitted distribution adjusted for phase bias when the outbreak was in an ascending or descending phase? |  |  | **X** |  |
| Did the authors mention applying statistical methods for adjusting other potential bias? | **X** |  |  |  |
| Is the code and data available? | **X** |  |  |  |
| **Chitwood (2023)** | | | | |
| **Item** | **Yes** | **No** | **Not clear** | **Not applicable** |
| Was the type of distribution fitted, either the only distribution fit or the best-fit from a set of candidate distributions? | **X** |  |  |  |
| Is the sample size used to fit the distribution reported? |  |  | **X** |  |
| Is the time frame used to fit the distribution reported? | **X** |  |  |  |
| Are the countries or regions of the study sample population described? | **X** |  |  |  |
| Are the parameters of the distribution available? | **X** |  |  |  |
| Are the central tendency measures (e.g., Mean, or median) reported? | **X** |  |  |  |
| Are variability tendency measures reported? (e.g., standard deviation, variance, coefficient of variation, range, interquartile range) |  |  |  | **X** |
| Are 95% or 90% credibility or confidence intervals reported? |  | **X** |  |  |
| Was there censored data when the exposure or onset times were not known with certainty? |  |  | **X** |  |
| Was there truncated data when the exposure or onset times were not known with certainty? |  |  | **X** |  |
| Was the fitted distribution adjusted for phase bias when the outbreak was in an ascending or descending phase? |  |  | **X** |  |
| Did the authors mention applying statistical methods for adjusting other potential bias? |  | **X** |  |  |
| Is the code and data available? |  | **X** |  |  |
| **Diaz-Brochero (2023)** | | | | |
| **Item** | **Yes** | **No** | **Not clear** | **Not applicable** |
| Was the type of distribution fitted, either the only distribution fit or the best-fit from a set of candidate distributions? | **X** |  |  |  |
| Is the sample size used to fit the distribution reported? | **X** |  |  |  |
| Is the time frame used to fit the distribution reported? | **X** |  |  |  |
| Are the countries or regions of the study sample population described? | **X** |  |  |  |
| Are the parameters of the distribution available? | **X** |  |  |  |
| Are the central tendency measures (e.g., Mean, or median) reported? | **X** |  |  |  |
| Are variability tendency measures reported? (e.g., standard deviation, variance, coefficient of variation, range, interquartile range) |  |  |  | **X** |
| Are 95% or 90% credibility or confidence intervals reported? | **X** |  |  |  |
| Was there censored data when the exposure or onset times were not known with certainty? |  | **X** |  |  |
| Was there truncated data when the exposure or onset times were not known with certainty? | **X** |  |  |  |
| Was the fitted distribution adjusted for phase bias when the outbreak was in an ascending or descending phase? | **X** |  |  |  |
| Did the authors mention applying statistical methods for adjusting other potential bias? | **X** |  |  |  |
| Is the code and data available? | **X** |  |  |  |
| **Du (2022)** | | | | |
| **Item** | **Yes** | **No** | **Not clear** | **Not applicable** |
| Was the type of distribution fitted, either the only distribution fit or the best-fit from a set of candidate distributions? | **X** |  |  |  |
| Is the sample size used to fit the distribution reported? | **X** |  |  |  |
| Is the time frame used to fit the distribution reported? | **X** |  |  |  |
| Are the countries or regions of the study sample population described? | **X** |  |  |  |
| Are the parameters of the distribution available? | **X** |  |  |  |
| Are the central tendency measures (e.g., Mean, or median) reported? |  |  |  | **X** |
| Are variability tendency measures reported? (e.g., standard deviation, variance, coefficient of variation, range, interquartile range) | **X** |  |  |  |
| Are 95% or 90% credibility or confidence intervals reported? | **X** |  |  |  |
| Was there censored data when the exposure or onset times were not known with certainty? |  |  | **X** |  |
| Was there truncated data when the exposure or onset times were not known with certainty? |  |  | **X** |  |
| Was the fitted distribution adjusted for phase bias when the outbreak was in an ascending or descending phase? | **X** |  |  |  |
| Did the authors mention applying statistical methods for adjusting other potential bias? |  | **X** |  |  |
| Is the code and data available? |  | **X** |  |  |
| **Endo (2022)** | | | | |
| **Item** | **Yes** | **No** | **Not clear** | **Not applicable** |
| Was the type of distribution fitted, either the only distribution fit or the best-fit from a set of candidate distributions? | **X** |  |  |  |
| Is the sample size used to fit the distribution reported? | **X** |  |  |  |
| Is the time frame used to fit the distribution reported? | **X** |  |  |  |
| Are the countries or regions of the study sample population described? | **X** |  |  |  |
| Are the parameters of the distribution available? | **X** |  |  |  |
| Are the central tendency measures (e.g., Mean, or median) reported? |  |  |  | **X** |
| Are variability tendency measures reported? (e.g., standard deviation, variance, coefficient of variation, range, interquartile range) | **X** |  |  |  |
| Are 95% or 90% credibility or confidence intervals reported? | **X** |  |  |  |
| Was there censored data when the exposure or onset times were not known with certainty? |  | **X** |  |  |
| Was there truncated data when the exposure or onset times were not known with certainty? | **X** |  |  |  |
| Was the fitted distribution adjusted for phase bias when the outbreak was in an ascending or descending phase? | **X** |  |  |  |
| Did the authors mention applying statistical methods for adjusting other potential bias? | **X** |  |  |  |
| Is the code and data available? | **X** |  |  |  |
| **Gao (2023)** | | | | |
| **Item** | **Yes** | **No** | **Not clear** | **Not applicable** |
| Was the type of distribution fitted, either the only distribution fit or the best-fit from a set of candidate distributions? | **X** |  |  |  |
| Is the sample size used to fit the distribution reported? |  |  | **X** |  |
| Is the time frame used to fit the distribution reported? | **X** |  |  |  |
| Are the countries or regions of the study sample population described? | **X** |  |  |  |
| Are the parameters of the distribution available? | **X** |  |  |  |
| Are the central tendency measures (e.g., Mean, or median) reported? |  |  |  | **X** |
| Are variability tendency measures reported? (e.g., standard deviation, variance, coefficient of variation, range, interquartile range) | **X** |  |  |  |
| Are 95% or 90% credibility or confidence intervals reported? | **X** |  |  |  |
| Was there censored data when the exposure or onset times were not known with certainty? |  | **X** |  |  |
| Was there truncated data when the exposure or onset times were not known with certainty? |  | **X** |  |  |
| Was the fitted distribution adjusted for phase bias when the outbreak was in an ascending or descending phase? | **X** |  |  |  |
| Did the authors mention applying statistical methods for adjusting other potential bias? |  | **X** |  |  |
| Is the code and data available? | **X** |  |  |  |
| **Garcia-Garcia (2023)** | | | | |
| **Item** | **Yes** | **No** | **Not clear** | **Not applicable** |
| Was the type of distribution fitted, either the only distribution fit or the best-fit from a set of candidate distributions? | **X** |  |  |  |
| Is the sample size used to fit the distribution reported? | **X** |  |  |  |
| Is the time frame used to fit the distribution reported? | **X** |  |  |  |
| Are the countries or regions of the study sample population described? | **X** |  |  |  |
| Are the parameters of the distribution available? | **X** |  |  |  |
| Are the central tendency measures (e.g., Mean, or median) reported? |  |  |  | **X** |
| Are variability tendency measures reported? (e.g., standard deviation, variance, coefficient of variation, range, interquartile range) | **X** |  |  |  |
| Are 95% or 90% credibility or confidence intervals reported? | **X** |  |  |  |
| Was there censored data when the exposure or onset times were not known with certainty? |  | **X** |  |  |
| Was there truncated data when the exposure or onset times were not known with certainty? | **X** |  |  |  |
| Was the fitted distribution adjusted for phase bias when the outbreak was in an ascending or descending phase? | **X** |  |  |  |
| Did the authors mention applying statistical methods for adjusting other potential bias? | **X** |  |  |  |
| Is the code and data available? | **X** |  |  |  |
| **Guo (2022)** | | | | |
| **Item** | **Yes** | **No** | **Not clear** | **Not applicable** |
| Was the type of distribution fitted, either the only distribution fit or the best-fit from a set of candidate distributions? | **X** |  |  |  |
| Is the sample size used to fit the distribution reported? | **X** |  |  |  |
| Is the time frame used to fit the distribution reported? | **X** |  |  |  |
| Are the countries or regions of the study sample population described? | **X** |  |  |  |
| Are the parameters of the distribution available? |  |  |  |  |
| Are the central tendency measures (e.g., Mean, or median) reported? | **X** |  |  |  |
| Are variability tendency measures reported? (e.g., standard deviation, variance, coefficient of variation, range, interquartile range) |  |  |  | **X** |
| Are 95% or 90% credibility or confidence intervals reported? | **X** |  |  |  |
| Was there censored data when the exposure or onset times were not known with certainty? |  | **X** |  |  |
| Was there truncated data when the exposure or onset times were not known with certainty? | **X** |  |  |  |
| Was the fitted distribution adjusted for phase bias when the outbreak was in an ascending or descending phase? | **X** |  |  |  |
| Did the authors mention applying statistical methods for adjusting other potential bias? | **X** |  |  |  |
| Is the code and data available? | **X** |  |  |  |
| **Guzzeta (2022)** | | | | |
| **Item** | **Yes** | **No** | **Not clear** | **Not applicable** |
| Was the type of distribution fitted, either the only distribution fit or the best-fit from a set of candidate distributions? | **X** |  |  |  |
| Is the sample size used to fit the distribution reported? | **X** |  |  |  |
| Is the time frame used to fit the distribution reported? | **X** |  |  |  |
| Are the countries or regions of the study sample population described? | **X** |  |  |  |
| Are the parameters of the distribution available? | **X** |  |  |  |
| Are the central tendency measures (e.g., Mean, or median) reported? | **X** |  |  |  |
| Are variability tendency measures reported? (e.g., standard deviation, variance, coefficient of variation, range, interquartile range) |  |  |  | **X** |
| Are 95% or 90% credibility or confidence intervals reported? | **X** |  |  |  |
| Was there censored data when the exposure or onset times were not known with certainty? |  | **X** |  |  |
| Was there truncated data when the exposure or onset times were not known with certainty? |  | **X** |  |  |
| Was the fitted distribution adjusted for phase bias when the outbreak was in an ascending or descending phase? |  | **X** |  |  |
| Did the authors mention applying statistical methods for adjusting other potential bias? |  | **X** |  |  |
| Is the code and data available? |  | **X** |  |  |
| **Kwok (2022)** | | | | |
| **Item** | **Yes** | **No** | **Not clear** | **Not applicable** |
| Was the type of distribution fitted, either the only distribution fit or the best-fit from a set of candidate distributions? | **X** |  |  |  |
| Is the sample size used to fit the distribution reported? | **X** |  |  |  |
| Is the time frame used to fit the distribution reported? | **X** |  |  |  |
| Are the countries or regions of the study sample population described? | **X** |  |  |  |
| Are the parameters of the distribution available? | **X** |  |  |  |
| Are the central tendency measures (e.g., Mean, or median) reported? |  |  |  | **X** |
| Are variability tendency measures reported? (e.g., standard deviation, variance, coefficient of variation, range, interquartile range) | **X** |  |  |  |
| Are 95% or 90% credibility or confidence intervals reported? | **X** |  |  |  |
| Was there censored data when the exposure or onset times were not known with certainty? | **X** |  |  |  |
| Was there truncated data when the exposure or onset times were not known with certainty? | **X** |  |  |  |
| Was the fitted distribution adjusted for phase bias when the outbreak was in an ascending or descending phase? |  | **X** |  |  |
| Did the authors mention applying statistical methods for adjusting other potential bias? |  | **X** |  |  |
| Is the code and data available? | **X** |  |  |  |
| **Liao (2023)** | | | | |
| **Item** | **Yes** | **No** | **Not clear** | **Not applicable** |
| Was the type of distribution fitted, either the only distribution fit or the best-fit from a set of candidate distributions? | **X** |  |  |  |
| Is the sample size used to fit the distribution reported? | **X** |  |  |  |
| Is the time frame used to fit the distribution reported? | **X** |  |  |  |
| Are the countries or regions of the study sample population described? | **X** |  |  |  |
| Are the parameters of the distribution available? | **X** |  |  |  |
| Are the central tendency measures (e.g., Mean, or median) reported? | **X** |  |  |  |
| Are variability tendency measures reported? (e.g., standard deviation, variance, coefficient of variation, range, interquartile range) |  |  |  | **X** |
| Are 95% or 90% credibility or confidence intervals reported? | **X** |  |  |  |
| Was there censored data when the exposure or onset times were not known with certainty? |  | **X** |  |  |
| Was there truncated data when the exposure or onset times were not known with certainty? |  | **X** |  |  |
| Was the fitted distribution adjusted for phase bias when the outbreak was in an ascending or descending phase? |  | **X** |  |  |
| Did the authors mention applying statistical methods for adjusting other potential bias? |  | **X** |  |  |
| Is the code and data available? |  | **X** |  |  |
| **Madewell (2023)** | | | | |
| **Item** | **Yes** | **No** | **Not clear** | **Not applicable** |
| Was the type of distribution fitted, either the only distribution fit or the best-fit from a set of candidate distributions? | **X** |  |  |  |
| Is the sample size used to fit the distribution reported? | **X** |  |  |  |
| Is the time frame used to fit the distribution reported? | **X** |  |  |  |
| Are the countries or regions of the study sample population described? | **X** |  |  |  |
| Are the parameters of the distribution available? | **X** |  |  |  |
| Are the central tendency measures (e.g., Mean, or median) reported? | **X** |  |  |  |
| Are variability tendency measures reported? (e.g., standard deviation, variance, coefficient of variation, range, interquartile range) |  |  |  | **X** |
| Are 95% or 90% credibility or confidence intervals reported? | **X** |  |  |  |
| Was there censored data when the exposure or onset times were not known with certainty? |  |  |  | **X** |
| Was there truncated data when the exposure or onset times were not known with certainty? |  |  |  | **X** |
| Was the fitted distribution adjusted for phase bias when the outbreak was in an ascending or descending phase? | **X** |  |  |  |
| Did the authors mention applying statistical methods for adjusting other potential bias? | **X** |  |  |  |
| Is the code and data available? | **X** |  |  |  |
| **McFarland (2023)** | | | | |
| **Item** | **Yes** | **No** | **Not clear** | **Not applicable** |
| Was the type of distribution fitted, either the only distribution fit or the best-fit from a set of candidate distributions? | **X** |  |  |  |
| Is the sample size used to fit the distribution reported? | **X** |  |  |  |
| Is the time frame used to fit the distribution reported? | **X** |  |  |  |
| Are the countries or regions of the study sample population described? | **X** |  |  |  |
| Are the parameters of the distribution available? | **X** |  |  |  |
| Are the central tendency measures (e.g., Mean, or median) reported? |  |  |  | **X** |
| Are variability tendency measures reported? (e.g., standard deviation, variance, coefficient of variation, range, interquartile range) | **X** |  |  |  |
| Are 95% or 90% credibility or confidence intervals reported? | **X** |  |  |  |
| Was there censored data when the exposure or onset times were not known with certainty? | **X** |  |  |  |
| Was there truncated data when the exposure or onset times were not known with certainty? |  | **X** |  |  |
| Was the fitted distribution adjusted for phase bias when the outbreak was in an ascending or descending phase? | **X** |  |  |  |
| Did the authors mention applying statistical methods for adjusting other potential bias? | **X** |  |  |  |
| Is the code and data available? | **X** |  |  |  |
| **Miura (2022)** | | | | |
| **Item** | **Yes** | **No** | **Not clear** | **Not applicable** |
| Was the type of distribution fitted, either the only distribution fit or the best-fit from a set of candidate distributions? | **X** |  |  |  |
| Is the sample size used to fit the distribution reported? | **X** |  |  |  |
| Is the time frame used to fit the distribution reported? | **X** |  |  |  |
| Are the countries or regions of the study sample population described? | **X** |  |  |  |
| Are the parameters of the distribution available? | **X** |  |  |  |
| Are the central tendency measures (e.g., Mean, or median) reported? | **X** |  |  |  |
| Are variability tendency measures reported? (e.g., standard deviation, variance, coefficient of variation, range, interquartile range) |  |  |  | **X** |
| Are 95% or 90% credibility or confidence intervals reported? | **X** |  |  |  |
| Was there censored data when the exposure or onset times were not known with certainty? |  | **X** |  |  |
| Was there truncated data when the exposure or onset times were not known with certainty? |  | **X** |  |  |
| Was the fitted distribution adjusted for phase bias when the outbreak was in an ascending or descending phase? |  | **X** |  |  |
| Did the authors mention applying statistical methods for adjusting other potential bias? |  | **X** |  |  |
| Is the code and data available? | **X** |  |  |  |
| **Miura (2023)** | | | | |
| **Item** | **Yes** | **No** | **Not clear** | **Not applicable** |
| Was the type of distribution fitted, either the only distribution fit or the best-fit from a set of candidate distributions? | **X** |  |  |  |
| Is the sample size used to fit the distribution reported? | **X** |  |  |  |
| Is the time frame used to fit the distribution reported? | **X** |  |  |  |
| Are the countries or regions of the study sample population described? | **X** |  |  |  |
| Are the parameters of the distribution available? | **X** |  |  |  |
| Are the central tendency measures (e.g., Mean, or median) reported? | **X** |  |  |  |
| Are variability tendency measures reported? (e.g., standard deviation, variance, coefficient of variation, range, interquartile range) |  |  |  | **X** |
| Are 95% or 90% credibility or confidence intervals reported? | **X** |  |  |  |
| Was there censored data when the exposure or onset times were not known with certainty? | **X** |  |  |  |
| Was there truncated data when the exposure or onset times were not known with certainty? |  | **X** |  |  |
| Was the fitted distribution adjusted for phase bias when the outbreak was in an ascending or descending phase? |  | **X** |  |  |
| Did the authors mention applying statistical methods for adjusting other potential bias? |  | **X** |  |  |
| Is the code and data available? | **X** |  |  |  |
| **Musa (2022)** | | | | |
| **Item** | **Yes** | **No** | **Not clear** | **Not applicable** |
| Was the type of distribution fitted, either the only distribution fit or the best-fit from a set of candidate distributions? | **X** |  |  |  |
| Is the sample size used to fit the distribution reported? | **X** |  |  |  |
| Is the time frame used to fit the distribution reported? | **X** |  |  |  |
| Are the countries or regions of the study sample population described? | **X** |  |  |  |
| Are the parameters of the distribution available? | **X** |  |  |  |
| Are the central tendency measures (e.g., Mean, or median) reported? |  |  |  | **X** |
| Are variability tendency measures reported? (e.g., standard deviation, variance, coefficient of variation, range, interquartile range) | **X** |  |  |  |
| Are 95% or 90% credibility or confidence intervals reported? | **X** |  |  |  |
| Was there censored data when the exposure or onset times were not known with certainty? | **X** |  |  |  |
| Was there truncated data when the exposure or onset times were not known with certainty? | **X** |  |  |  |
| Was the fitted distribution adjusted for phase bias when the outbreak was in an ascending or descending phase? | **X** |  |  |  |
| Did the authors mention applying statistical methods for adjusting other potential bias? | **X** |  |  |  |
| Is the code and data available? | **X** |  |  |  |
| **Saldaña (2022)** | | | | |
| **Item** | **Yes** | **No** | **Not clear** | **Not applicable** |
| Was the type of distribution fitted, either the only distribution fit or the best-fit from a set of candidate distributions? | **X** |  |  |  |
| Is the sample size used to fit the distribution reported? | **X** |  |  |  |
| Is the time frame used to fit the distribution reported? | **X** |  |  |  |
| Are the countries or regions of the study sample population described? | **X** |  |  |  |
| Are the parameters of the distribution available? | **X** |  |  |  |
| Are the central tendency measures (e.g., Mean, or median) reported? | **X** |  |  |  |
| Are variability tendency measures reported? (e.g., standard deviation, variance, coefficient of variation, range, interquartile range) |  |  |  | **X** |
| Are 95% or 90% credibility or confidence intervals reported? | **X** |  |  |  |
| Was there censored data when the exposure or onset times were not known with certainty? |  | **X** |  |  |
| Was there truncated data when the exposure or onset times were not known with certainty? |  | **X** |  |  |
| Was the fitted distribution adjusted for phase bias when the outbreak was in an ascending or descending phase? |  | **X** |  |  |
| Did the authors mention applying statistical methods for adjusting other potential bias? |  | **X** |  |  |
| Is the code and data available? | **X** |  |  |  |
| **Schrarstzhaupt (2022)** | | | | |
| **Item** | **Yes** | **No** | **Not clear** | **Not applicable** |
| Was the type of distribution fitted, either the only distribution fit or the best-fit from a set of candidate distributions? | **X** |  |  |  |
| Is the sample size used to fit the distribution reported? | **X** |  |  |  |
| Is the time frame used to fit the distribution reported? | **X** |  |  |  |
| Are the countries or regions of the study sample population described? | **X** |  |  |  |
| Are the parameters of the distribution available? | **X** |  |  |  |
| Are the central tendency measures (e.g., Mean, or median) reported? | **X** |  |  |  |
| Are variability tendency measures reported? (e.g., standard deviation, variance, coefficient of variation, range, interquartile range) |  |  |  | **X** |
| Are 95% or 90% credibility or confidence intervals reported? | **X** |  |  |  |
| Was there censored data when the exposure or onset times were not known with certainty? |  | **X** |  |  |
| Was there truncated data when the exposure or onset times were not known with certainty? |  | **X** |  |  |
| Was the fitted distribution adjusted for phase bias when the outbreak was in an ascending or descending phase? |  | **X** |  |  |
| Did the authors mention applying statistical methods for adjusting other potential bias? |  | **X** |  |  |
| Is the code and data available? | **X** |  |  |  |
| **Ward (2022)** | | | | |
| **Item** | **Yes** | **No** | **Not clear** | **Not applicable** |
| Was the type of distribution fitted, either the only distribution fit or the best-fit from a set of candidate distributions? | **X** |  |  |  |
| Is the sample size used to fit the distribution reported? | **X** |  |  |  |
| Is the time frame used to fit the distribution reported? | **X** |  |  |  |
| Are the countries or regions of the study sample population described? | **X** |  |  |  |
| Are the parameters of the distribution available? | **X** |  |  |  |
| Are the central tendency measures (e.g., Mean, or median) reported? | **X** |  |  |  |
| Are variability tendency measures reported? (e.g., standard deviation, variance, coefficient of variation, range, interquartile range) |  |  |  | **X** |
| Are 95% or 90% credibility or confidence intervals reported? | **X** |  |  |  |
| Was there censored data when the exposure or onset times were not known with certainty? | **X** |  |  |  |
| Was there truncated data when the exposure or onset times were not known with certainty? | **X** |  |  |  |
| Was the fitted distribution adjusted for phase bias when the outbreak was in an ascending or descending phase? | **X** |  |  |  |
| Did the authors mention applying statistical methods for adjusting other potential bias? | **X** |  |  |  |
| Is the code and data available? | **X** |  |  |  |
| **Wei (2022)** | | | | |
| **Item** | **Yes** | **No** | **Not clear** | **Not applicable** |
| Was the type of distribution fitted, either the only distribution fit or the best-fit from a set of candidate distributions? | **X** |  |  |  |
| Is the sample size used to fit the distribution reported? | **X** |  |  |  |
| Is the time frame used to fit the distribution reported? | **X** |  |  |  |
| Are the countries or regions of the study sample population described? | **X** |  |  |  |
| Are the parameters of the distribution available? | **X** |  |  |  |
| Are the central tendency measures (e.g., Mean, or median) reported? | **X** |  |  |  |
| Are variability tendency measures reported? (e.g., standard deviation, variance, coefficient of variation, range, interquartile range) |  |  |  | **X** |
| Are 95% or 90% credibility or confidence intervals reported? | **X** |  |  |  |
| Was there censored data when the exposure or onset times were not known with certainty? |  | **X** |  |  |
| Was there truncated data when the exposure or onset times were not known with certainty? |  | **X** |  |  |
| Was the fitted distribution adjusted for phase bias when the outbreak was in an ascending or descending phase? |  | **X** |  |  |
| Did the authors mention applying statistical methods for adjusting other potential bias? |  | **X** |  |  |
| Is the code and data available? |  | **X** |  |  |

1. **Cohort studies**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Ogoina (2023)** | | | | |
| **Item** | **Yes** | **No** | **Not clear** | **Not applicable** |
| Were the groups/participants free of the outcome at the start of the study (or at the moment of exposure)? | **X** |  |  |  |
| Were the outcomes measured in a valid and reliable way? | **X** |  |  |  |
| Was the follow up time reported and sufficient to be long enough for outcomes to occur? | **X** |  |  |  |
| Was follow up complete, and if not, were the reasons to loss to follow up described and explored? |  |  | **X** |  |
| Were strategies to address incomplete follow up utilized? |  |  | **X** |  |
| Was appropriate statistical analysis used? | **X** |  |  |  |
| **Tarín-Vicente (2022)** | | | | |
| **Item** | **Yes** | **No** | **Not clear** | **Not applicable** |
| Were the groups/participants free of the outcome at the start of the study (or at the moment of exposure)? | **X** |  |  |  |
| Were the outcomes measured in a valid and reliable way? | **X** |  |  |  |
| Was the follow up time reported and sufficient to be long enough for outcomes to occur? |  |  | **X** |  |
| Was follow up complete, and if not, were the reasons to loss to follow up described and explored? |  |  | **X** |  |
| Were strategies to address incomplete follow up utilized? |  |  | **X** |  |
| Was appropriate statistical analysis used? | **X** |  |  |  |

1. **Case series**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Choudhury (2022)** | | | | |
| **Item** | **Yes** | **No** | **Not clear** | **Not applicable** |
| Were there clear criteria for inclusion in the case series? |  |  | **X** |  |
| Was the condition measured in a standard, reliable way for all participants included in the case series? |  |  | **X** |  |
| Were valid methods used for identification of the condition for all participants included in the case series? |  |  | **X** |  |
| Did the case series have consecutive inclusion of participants? | **X** |  |  |  |
| Did the case series have complete inclusion of participants? | **X** |  |  |  |
| Was there clear reporting of the demographics of the participants in the study? | **X** |  |  |  |
| Was there clear reporting of clinical information of the participants? | **X** |  |  |  |
| Was there clear reporting of the presenting site(s)/clinic(s) demographic information? | **X** |  |  |  |
| Was statistical analysis appropriate? | **X** |  |  |  |
| **Cobos (2023)** | | | | |
| **Item** | **Yes** | **No** | **Not clear** | **Not applicable** |
| Were there clear criteria for inclusion in the case series? | **X** |  |  |  |
| Was the condition measured in a standard, reliable way for all participants included in the case series? | **X** |  |  |  |
| Were valid methods used for identification of the condition for all participants included in the case series? | **X** |  |  |  |
| Did the case series have consecutive inclusion of participants? | **X** |  |  |  |
| Did the case series have complete inclusion of participants? | **X** |  |  |  |
| Was there clear reporting of the demographics of the participants in the study? | **X** |  |  |  |
| Was there clear reporting of clinical information of the participants? | **X** |  |  |  |
| Was there clear reporting of the presenting site(s)/clinic(s) demographic information? | **X** |  |  |  |
| Was statistical analysis appropriate? | **X** |  |  |  |
| **Gaspari (2022)** | | | | |
| **Item** | **Yes** | **No** | **Not clear** | **Not applicable** |
| Were there clear criteria for inclusion in the case series? | **X** |  |  |  |
| Was the condition measured in a standard, reliable way for all participants included in the case series? | **X** |  |  |  |
| Were valid methods used for identification of the condition for all participants included in the case series? | **X** |  |  |  |
| Did the case series have consecutive inclusion of participants? | **X** |  |  |  |
| Did the case series have complete inclusion of participants? | **X** |  |  |  |
| Was there clear reporting of the demographics of the participants in the study? | **X** |  |  |  |
| Was there clear reporting of clinical information of the participants? | **X** |  |  |  |
| Was there clear reporting of the presenting site(s)/clinic(s) demographic information? | **X** |  |  |  |
| Was statistical analysis appropriate? | **X** |  |  |  |
| **Gomez-Garberi (2022)** | | | | |
| **Item** | **Yes** | **No** | **Not clear** | **Not applicable** |
| Were there clear criteria for inclusion in the case series? | **X** |  |  |  |
| Was the condition measured in a standard, reliable way for all participants included in the case series? | **X** |  |  |  |
| Were valid methods used for identification of the condition for all participants included in the case series? | **X** |  |  |  |
| Did the case series have consecutive inclusion of participants? | **X** |  |  |  |
| Did the case series have complete inclusion of participants? | **X** |  |  |  |
| Was there clear reporting of the demographics of the participants in the study? | **X** |  |  |  |
| Was there clear reporting of clinical information of the participants? | **X** |  |  |  |
| Was there clear reporting of the presenting site(s)/clinic(s) demographic information? | **X** |  |  |  |
| Was statistical analysis appropriate? | **X** |  |  |  |
| **Kroger (2023)** | | | | |
| **Item** | **Yes** | **No** | **Not clear** | **Not applicable** |
| Were there clear criteria for inclusion in the case series? | **X** |  |  |  |
| Was the condition measured in a standard, reliable way for all participants included in the case series? | **X** |  |  |  |
| Were valid methods used for identification of the condition for all participants included in the case series? | **X** |  |  |  |
| Did the case series have consecutive inclusion of participants? | **X** |  |  |  |
| Did the case series have complete inclusion of participants? | **X** |  |  |  |
| Was there clear reporting of the demographics of the participants in the study? | **X** |  |  |  |
| Was there clear reporting of clinical information of the participants? | **X** |  |  |  |
| Was there clear reporting of the presenting site(s)/clinic(s) demographic information? | **X** |  |  |  |
| Was statistical analysis appropriate? | **X** |  |  |  |
| **Mailhe (2023)** | | | | |
| **Item** | **Yes** | **No** | **Not clear** | **Not applicable** |
| Were there clear criteria for inclusion in the case series? | **X** |  |  |  |
| Was the condition measured in a standard, reliable way for all participants included in the case series? | **X** |  |  |  |
| Were valid methods used for identification of the condition for all participants included in the case series? | **X** |  |  |  |
| Did the case series have consecutive inclusion of participants? | **X** |  |  |  |
| Did the case series have complete inclusion of participants? | **X** |  |  |  |
| Was there clear reporting of the demographics of the participants in the study? | **X** |  |  |  |
| Was there clear reporting of clinical information of the participants? |  |  | **X** |  |
| Was there clear reporting of the presenting site(s)/clinic(s) demographic information? | **X** |  |  |  |
| Was statistical analysis appropriate? | **X** |  |  |  |
| **Maldonado (2023)** | | | | |
| **Item** | **Yes** | **No** | **Not clear** | **Not applicable** |
| Were there clear criteria for inclusion in the case series? | **X** |  |  |  |
| Was the condition measured in a standard, reliable way for all participants included in the case series? | **X** |  |  |  |
| Were valid methods used for identification of the condition for all participants included in the case series? | **X** |  |  |  |
| Did the case series have consecutive inclusion of participants? | **X** |  |  |  |
| Did the case series have complete inclusion of participants? | **X** |  |  |  |
| Was there clear reporting of the demographics of the participants in the study? | **X** |  |  |  |
| Was there clear reporting of clinical information of the participants? |  |  | **X** |  |
| Was there clear reporting of the presenting site(s)/clinic(s) demographic information? | **X** |  |  |  |
| Was statistical analysis appropriate? | **X** |  |  |  |
| **Mitjà (2023)** | | | | |
| **Item** | **Yes** | **No** | **Not clear** | **Not applicable** |
| Were there clear criteria for inclusion in the case series? | **X** |  |  |  |
| Was the condition measured in a standard, reliable way for all participants included in the case series? | **X** |  |  |  |
| Were valid methods used for identification of the condition for all participants included in the case series? | **X** |  |  |  |
| Did the case series have consecutive inclusion of participants? | **X** |  |  |  |
| Did the case series have complete inclusion of participants? | **X** |  |  |  |
| Was there clear reporting of the demographics of the participants in the study? | **X** |  |  |  |
| Was there clear reporting of clinical information of the participants? | **X** |  |  |  |
| Was there clear reporting of the presenting site(s)/clinic(s) demographic information? | **X** |  |  |  |
| Was statistical analysis appropriate? | **X** |  |  |  |
| **Moschese (2023)** | | | | |
| **Item** | **Yes** | **No** | **Not clear** | **Not applicable** |
| Were there clear criteria for inclusion in the case series? | **X** |  |  |  |
| Was the condition measured in a standard, reliable way for all participants included in the case series? | **X** |  |  |  |
| Were valid methods used for identification of the condition for all participants included in the case series? | **X** |  |  |  |
| Did the case series have consecutive inclusion of participants? | **X** |  |  |  |
| Did the case series have complete inclusion of participants? | **X** |  |  |  |
| Was there clear reporting of the demographics of the participants in the study? | **X** |  |  |  |
| Was there clear reporting of clinical information of the participants? |  |  | **X** |  |
| Was there clear reporting of the presenting site(s)/clinic(s) demographic information? | **X** |  |  |  |
| Was statistical analysis appropriate? |  |  |  | **X** |
| **O’Laughlin (2022)** | | | | |
| **Item** | **Yes** | **No** | **Not clear** | **Not applicable** |
| Were there clear criteria for inclusion in the case series? | **X** |  |  |  |
| Was the condition measured in a standard, reliable way for all participants included in the case series? | **X** |  |  |  |
| Were valid methods used for identification of the condition for all participants included in the case series? | **X** |  |  |  |
| Did the case series have consecutive inclusion of participants? |  | **X** |  |  |
| Did the case series have complete inclusion of participants? |  |  | **X** |  |
| Was there clear reporting of the demographics of the participants in the study? |  |  | **X** |  |
| Was there clear reporting of clinical information of the participants? | **X** |  |  |  |
| Was there clear reporting of the presenting site(s)/clinic(s) demographic information? | **X** |  |  |  |
| Was statistical analysis appropriate? |  |  | **X** |  |
| **Suárez Rodríguez (2022)** | | | | |
| **Item** | **Yes** | **No** | **Not clear** | **Not applicable** |
| Were there clear criteria for inclusion in the case series? |  |  | **X** |  |
| Was the condition measured in a standard, reliable way for all participants included in the case series? |  |  | **X** |  |
| Were valid methods used for identification of the condition for all participants included in the case series? |  |  | **X** |  |
| Did the case series have consecutive inclusion of participants? | **X** |  |  |  |
| Did the case series have complete inclusion of participants? | **X** |  |  |  |
| Was there clear reporting of the demographics of the participants in the study? | **X** |  |  |  |
| Was there clear reporting of clinical information of the participants? |  | **X** |  |  |
| Was there clear reporting of the presenting site(s)/clinic(s) demographic information? |  |  | **X** |  |
| Was statistical analysis appropriate? |  |  |  | **X** |
| **Thornhill (2022)** | | | | |
| **Item** | **Yes** | **No** | **Not clear** | **Not applicable** |
| Were there clear criteria for inclusion in the case series? | **X** |  |  |  |
| Was the condition measured in a standard, reliable way for all participants included in the case series? | **X** |  |  |  |
| Were valid methods used for identification of the condition for all participants included in the case series? | **X** |  |  |  |
| Did the case series have consecutive inclusion of participants? | **X** |  |  |  |
| Did the case series have complete inclusion of participants? | **X** |  |  |  |
| Was there clear reporting of the demographics of the participants in the study? | **X** |  |  |  |
| Was there clear reporting of clinical information of the participants? | **X** |  |  |  |
| Was there clear reporting of the presenting site(s)/clinic(s) demographic information? | **X** |  |  |  |
| Was statistical analysis appropriate? | **X** |  |  |  |
| **Thornhill (2022)** | | | | |
| **Item** | **Yes** | **No** | **Not clear** | **Not applicable** |
| Were there clear criteria for inclusion in the case series? | **X** |  |  |  |
| Was the condition measured in a standard, reliable way for all participants included in the case series? | **X** |  |  |  |
| Were valid methods used for identification of the condition for all participants included in the case series? | **X** |  |  |  |
| Did the case series have consecutive inclusion of participants? | **X** |  |  |  |
| Did the case series have complete inclusion of participants? | **X** |  |  |  |
| Was there clear reporting of the demographics of the participants in the study? | **X** |  |  |  |
| Was there clear reporting of clinical information of the participants? | **X** |  |  |  |
| Was there clear reporting of the presenting site(s)/clinic(s) demographic information? | **X** |  |  |  |
| Was statistical analysis appropriate? | **X** |  |  |  |

1. **Cross-sectional studies and surveillance reports**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **UKHSA (2022) Technical briefing 1** | | | | |
| **Item** | **Yes** | **No** | **Not clear** | **Not applicable** |
| Were the criteria for inclusion in the sample clearly defined? | **X** |  |  |  |
| Were the study subjects and the setting described in detail? | **X** |  |  |  |
| Were objective, standard criteria used for measurement of the condition? | **X** |  |  |  |
| Were the outcomes measured in a valid and reliable way? | **X** |  |  |  |
| Was appropriate statistical analysis used? | **X** |  |  |  |
| **UKHSA (2022) Technical briefing 2** | | | | |
| **Item** | **Yes** | **No** | **Not clear** | **Not applicable** |
| Were the criteria for inclusion in the sample clearly defined? | **X** |  |  |  |
| Were the study subjects and the setting described in detail? | **X** |  |  |  |
| Were objective, standard criteria used for measurement of the condition? | **X** |  |  |  |
| Were the outcomes measured in a valid and reliable way? | **X** |  |  |  |
| Was appropriate statistical analysis used? | **X** |  |  |  |
| **Alvarez-Moreno (2023)** | | | | |
| **Item** | **Yes** | **No** | **Not clear** | **Not applicable** |
| Were the criteria for inclusion in the sample clearly defined? | **X** |  |  |  |
| Were the study subjects and the setting described in detail? | **X** |  |  |  |
| Were objective, standard criteria used for measurement of the condition? | **X** |  |  |  |
| Were the outcomes measured in a valid and reliable way? | **X** |  |  |  |
| Was appropriate statistical analysis used? | **X** |  |  |  |
| **Angelo (2023)** | | | | |
| **Item** | **Yes** | **No** | **Not clear** | **Not applicable** |
| Were the criteria for inclusion in the sample clearly defined? | **X** |  |  |  |
| Were the study subjects and the setting described in detail? | **X** |  |  |  |
| Were objective, standard criteria used for measurement of the condition? | **X** |  |  |  |
| Were the outcomes measured in a valid and reliable way? | **X** |  |  |  |
| Was appropriate statistical analysis used? | **X** |  |  |  |
| **Català (2022)** | | | | |
| **Item** | **Yes** | **No** | **Not clear** | **Not applicable** |
| Were the criteria for inclusion in the sample clearly defined? | **X** |  |  |  |
| Were the study subjects and the setting described in detail? | **X** |  |  |  |
| Were objective, standard criteria used for measurement of the condition? | **X** |  |  |  |
| Were the outcomes measured in a valid and reliable way? | **X** |  |  |  |
| Was appropriate statistical analysis used? | **X** |  |  |  |
| **Eustaquio (2023)** | | | | |
| **Item** | **Yes** | **No** | **Not clear** | **Not applicable** |
| Were the criteria for inclusion in the sample clearly defined? | **X** |  |  |  |
| Were the study subjects and the setting described in detail? | **X** |  |  |  |
| Were objective, standard criteria used for measurement of the condition? |  |  | **X** |  |
| Were the outcomes measured in a valid and reliable way? | **X** |  |  |  |
| Was appropriate statistical analysis used? | **X** |  |  |  |
| **Núñez (2023)** | | | | |
| **Item** | **Yes** | **No** | **Not clear** | **Not applicable** |
| Were the criteria for inclusion in the sample clearly defined? | **X** |  |  |  |
| Were the study subjects and the setting described in detail? | **X** |  |  |  |
| Were objective, standard criteria used for measurement of the condition? | **X** |  |  |  |
| Were the outcomes measured in a valid and reliable way? | **X** |  |  |  |
| Was appropriate statistical analysis used? | **X** |  |  |  |
| **Riser (2023)** | | | | |
| **Item** | **Yes** | **No** | **Not clear** | **Not applicable** |
| Were the criteria for inclusion in the sample clearly defined? | **X** |  |  |  |
| Were the study subjects and the setting described in detail? | **X** |  |  |  |
| Were objective, standard criteria used for measurement of the condition? | **X** |  |  |  |
| Were the outcomes measured in a valid and reliable way? | **X** |  |  |  |
| Was appropriate statistical analysis used? | **X** |  |  |  |