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| --- | --- |
| 1 | Simulation scope |
|  | Aim |
|  | Design (incl. pseudo-code or flow diagram) |
|  | Number of simulation repetitions |
| 2 | Comparative truth |
|  | Data-generating mechanism (model-based or design-based) |
|  | Sampling variance |
|  | Data characteristics (incl. multivariate relations and structures e.g. clustering) |
|  | Estimand |
| 3 | Induced missingness |
|  | Missingness mechanism (incl. type or functional form of the missing data model) |
|  | Missingness pattern (incl. missingness proportion) |
| 4 | Applied methods |
|  | Imputation methods (incl. parameters e.g. the number of imputations) |
|  | Analytic methods (incl. calculation of standard errors e.g. pooling rules) |
|  | Reference method (e.g. complete case analysis) |
| 5 | Imputation evaluation |
|  | Imputation-generating process (e.g. algorithmic non-convergence) |
|  | Imputation model fit (e.g. posterior predictive checks) |
|  | Distributional characteristics (e.g. plausibility of imputed values) |
| 6 | Performance evaluation |
|  | Statistical properties (e.g. confidence validity) |
|  | Comparative performance (e.g. predictive accuracy) |

**Checklist for reporting on imputation methodology evaluations**