## Supplemental File 4: Additional results comparing across all four scenarios

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The contents of this Supplemental File can be accessed in an interactive tool available at: <https://survsim.shinyapps.io/survsim>

## Coverage

Chart, histogram

Description automatically generatedFigure S4-1 Coverage at each sample size and level of proportion of events across scenarios when distribution correctly specified as exponential

Scenarios: 1- high event rate, short accrual

2- high event rate, long accrual

3- low event rate, short accrual

4- low event rate, long accrual

Chart, histogram

Description automatically generated

**Figure** **S4-2 Coverage at each sample size and level of proportion of events across scenarios when distribution was chosen by AIC**

Scenarios: 1- high event rate, short accrual

2- high event rate, long accrual

3- low event rate, short accrual

4- low event rate, long accrual

**Chart

Description automatically generated**

**Figure** **S4-3 Coverage at each sample size and level of proportion of events for each scenario when distribution was chosen by BIC**

Scenarios: 1- high event rate, short accrual

2- high event rate, long accrual

3- low event rate, short accrual

4- low event rate, long accrual

## Mean absolute percentage error (MAPE)

Chart, diagram, histogram

Description automatically generated Figure S4-4 Mean absolute percentage error (MAPE) at each sample size and level of proportion of events for each scenario when distribution correctly specified as exponential

Scenarios: 1- high event rate, short accrual

2- high event rate, long accrual

3- low event rate, short accrual

4- low event rate, long accrual

**Chart, diagram, histogram

Description automatically generated**

**Figure** **S4-5 Mean absolute percentage error (MAPE) at each sample size and level of proportion of events for each scenario when distribution is chosen by AIC**

Scenarios: 1- high event rate, short accrual

2- high event rate, long accrual

3- low event rate, short accrual

4- low event rate, long accrual

**Chart, diagram, histogram

Description automatically generated**

**Figure S4-6 Mean absolute error (MAPE) at each sample size and level of proportion of events for each scenario when distribution is chosen by BIC**

Scenarios: 1- high event rate, short accrual

2- high event rate, long accrual

3- low event rate, short accrual

4- low event rate, long accrual

## Probability of >20% difference

Calendar

Description automatically generated

**Figure** **S4-7 Proportion of repetitions with estimates > 20% different from population fitted value across scenarios with distribution correctly specified as exponential**

Scenarios: 1- high event rate, short accrual

2- high event rate, long accrual

3- low event rate, short accrual

4- low event rate, long accrual

|  |
| --- |
| **Calendar  Description automatically generated**  **Figure S4-8 Proportion of repetitions with estimates > 20% different from population fitted value across scenarios with distribution specified by AIC**  Scenarios: 1- high event rate, short accrual  2- high event rate, long accrual  3- low event rate, short accrual  4- low event rate, long accrual  **Calendar  Description automatically generated**  **Figure** **S4-9 Proportion of repetitions with estimates > 20% different from population fitted value across scenarios with distribution specified by BIC**  Scenarios: 1- high event rate, short accrual  2- high event rate, long accrual  3- low event rate, short accrual  4- low event rate, long accrual |