We aim to develop an **EHDEN Cancer Survival Dashboard**, allowing users to quickly examine **survival data** and explore long-term projections.

**AIMS**

Using CPRD data in the first instance, we aim to:

1. Develop and assess data quality of phenotypes for the identification of breast, colorectal, head and neck, lung, liver, prostate, and stomach cancer.
2. Estimate overall survival of the studied cancers, stratifying by key demographic variables and comorbidity.
3. Fit standard parametric survival functions to the data to extrapolate long-term natural history of the studied cancers, including visual and statistical goodness of fit.
4. Include these outputs in a user-friendly, interactive ‘EHDEN Cancer Survival Data Dashboard’.

**RESULTS**

- We engaged with potential end users of the Dashboard—academic experts, HTA decision makers, industry experts and potential EHDEN data partners—to understand what information would be most useful to them.
- Some of the potential outputs identified from this consultation can be found in Figure 1.

**DISCUSSION**

- The development of this survival analysis use case will demonstrate a potential benefit of EHDEN and OHDSI tools to address priority areas of HTA agencies and industry stakeholders.
- The main strengths of this use case are likely to be a large sample size and the observational nature of the data, meaning its outputs will be representative of real-world clinical practice and outcomes.
- The development of the EHDEN Cancer Survival Data Dashboard will encourage clear and transparent reporting.
- From an HTA perspective, the dashboard will allow alternative parametric functions for survival extrapolation to be overlaid on observed Kaplan-Meier curves.
- This could have real benefits to healthcare reimbursement decisions based on HTA—for example, by informing comparator survival estimates where there is only a single-arm study, or by validating survival estimates from a clinical trial in the most relevant, real-world population.
- Other identified priority areas for HTA will be considered in future EHDEN HTA use cases in other disease areas.

**Goodness of fit**

<table>
<thead>
<tr>
<th>Parametric Model</th>
<th>Akaike Information Criterion</th>
<th>Bayesian Information Criterion</th>
<th>3-year survival estimate</th>
<th>5-year survival estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exponential</td>
<td>346.4</td>
<td>349.1</td>
<td>31.4%</td>
<td>14.6%</td>
</tr>
<tr>
<td>Generalised Gamma</td>
<td>342.5</td>
<td>350.6</td>
<td>25.5%</td>
<td>9.3%</td>
</tr>
<tr>
<td>Gompertz</td>
<td>345.0</td>
<td>350.3</td>
<td>21.9%</td>
<td>1.5%</td>
</tr>
<tr>
<td>Log-logistic</td>
<td>340.3</td>
<td>345.6</td>
<td>25.8%</td>
<td>11.9%</td>
</tr>
<tr>
<td>Log-normal</td>
<td>341.3</td>
<td>346.7</td>
<td>28.4%</td>
<td>13.6%</td>
</tr>
<tr>
<td>Weibull</td>
<td>341.6</td>
<td>347.0</td>
<td>22.0%</td>
<td>4.0%</td>
</tr>
</tbody>
</table>

Potential survival outputs from the EHDEN Cancer Data Dashboard. Please note, these figures are samples and have been intentionally de-labled for illustration purposes. Data from NICE technology appraisal 722: Pemigatinib for treating relapsed or refractory advanced cholangiocarcinoma with FGFR2 alterations.