



Evidence and  
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Summit 2023  
9-11 October

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## #38 - Development of an implementation costing instrument: semi-structured interviews and a modified Delphi panel

### Presenting Author(s)\*

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### Objectives/aims

Economic evaluations determine the relative value for money of health innovations and are important for decision makers when allocating scarce resources. The Summit's theme 'implementation and de-implementation strategies' highlights the essential role implementation strategies have in supporting active implementation. However, these strategies can also be resource intensive. The additional resourcing required for implementation strategies is typically not accounted for in published economic evaluations. This may be due to an underreporting of implementation costs in the literature and lack of methodological guidance to do so in practice. Consequently, this study aimed to develop a pragmatic implementation costing instrument to be used alongside digital health initiatives.

### Methods

A qualitative study of 16 semi-structured interviews using a hybrid inductive/deductive framework analysis was performed to document how the implementation of digital health innovations has been costed in hospital settings. The interview guide was informed by a literature review and was pilot tested. Interviews were digitally recorded and transcribed. Findings from the interviews were used to inform a modified Delphi panel that was subsequently conducted to generate a consensus on the components and design of an implementation costing instrument. Participants in both stages were purposefully sampled experts in implementation science, health economics and/or digital health.

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## Main findings

Five major themes were derived from the interview data: types of costs, why implementation is costed, how to cost implementation, implementation phases, and barriers and enablers to costing implementation. Broadly, interviewees recognised implementation costs as important but only some costs were considered in practice due to inconsistencies in terminology and the perceived ill-defined boundaries of implementation. Implementation costs were typically recorded to support the delivery of high value care. A variety of methods were used to collect and analyse implementation costs in practice. Multidisciplinary collaboration facilitated this process, but the burden of collecting the necessary data was highlighted. An implementation costing instrument was developed from these findings and refined as a result of the feedback from the Delphi process. The instrument assists in the identification of activities and resources that operationalise implementation strategies. Time commitments of personnel involved in each activity are captured using an appropriate data collection template provided. Additional templates are used to aggregate these labour costs and capture other relevant resources associated with the implementation strategies. The instrument requires additional piloting but aims to be an appropriate and pragmatic tool for costing implementation efforts within digital health, and healthcare settings more broadly. The use of this instrument to more accurately quantify the cost of implementation provides an opportunity to improve practice and progress research in this space.