

**Cambridge** Centre  
for Housing &  
Planning Research



# TAPPI Phase 2 Evaluation Toolkit



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## 1. The TAPPI Phase 2 evaluation toolkit

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Building evaluation into technology service pilots enables organisations to generate evidence about what is working well, what issues are arising, and to ensure that learning is captured so that services can be adapted and improved. Pulling together information from a range of resources (listed in section 8), as well as on experiences of conducting [the second Phase of TAPPI \(TAPPI2\)](#) evaluation, CCHPR has compiled a simple evaluation toolkit which can be used by organisations looking to implement technology pilots in housing and care settings.

This toolkit provides prompts for thinking about evaluation, and for considering what approaches to evaluation might be best suited to the particular project being implemented. It sets out a brief overview of the evaluation process, and highlights some important considerations which should be incorporated into an evaluation plan. It also indicates a range of useful resources providing more detailed information.

### Acknowledgments

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- Co-Production and Engagement partners [Co-production Works](#)
- Evaluation and Shared Learning partners [the Cambridge Centre for Housing and Planning Research \(CCHPR\)](#) at University of Cambridge
- 6 locality 'testbeds': [Bield Housing and Care](#); [London Borough of Haringey](#); [Platform Housing Group](#); [Pobl Group](#); [Southend Care](#); [Wiltshire Council](#).

## 2. What will your project look like?

Evaluating a project involves measuring outcomes against particular aims, which are usually set out at the beginning of a project (see Gov.uk, 2018). A good evaluation will enable progress to be tracked, and may highlight what is working well, while highlighting any emerging issues and identifying areas for improvement. Through continually reviewing data and carrying out interim analysis, the evaluation process can also highlight the need for ongoing changes and adaptations to the project to ensure it best meets the needs of service users.

When planning an evaluation, it is useful to think about what the project might look like, from the identification of goals at the outset, to the final anticipated impacts of the project.



### 3. Four steps of evaluation

Some key steps of evaluation are set out below (drawing on Gov.uk, 2018). However, these should not be thought of as discrete stages in a linear process, as it is useful to conduct some analysis of data at interim stages to inform the project, to share emerging findings to maximise stakeholder engagement throughout the process, and to reflect on the evaluation plan regularly in case it becomes necessary or useful to make changes:

#### Planning

- It is helpful to draw up a plan for the project evaluation. This plan will set out in detail the evaluation approach which you intend to complete, including timelines, activities, and outputs for each stage.

#### Data collection

- Data should be collected using appropriate methods to measure progress and outcomes against project aims and goals.
- Data can be generated at various stages throughout the project.

#### Analysis

- Appropriate approaches to analysis should be selected to make sense of the data.
- Thinking about emerging results throughout the duration of a project, as well as at the end, provides an opportunity for ongoing learning and allows for adaptation in response to changes or unexpected results.
- Comparisons between data collected at different stages of the project may be beneficial.

#### Sharing findings

- Evaluation findings should be presented clearly. At various points during a project, it may be useful to create interim reports to inform ongoing learning and to engage stakeholders. Blogs and social media may also be useful for sharing results widely.
- The final report, produced at the conclusion of a project, should set out key findings, and reflect on learning which can be built upon in the design of future services.

## 4. Five questions to ask when planning an evaluation

There are some key issues which will need consideration when designing an evaluation and preparing the evaluation plan.

### 1. What is the purpose of the evaluation?

- What do you want to use the data for? What do you plan to do with the results?
- Why is it important that you conduct an evaluation?
- Who will see the results of the evaluation?

Thinking about the purpose of the evaluation is a crucial step which will shape decisions throughout the evaluation process (see Evaluation Works, n.d.). You may wish to use an evaluation to demonstrate to funders that you are meeting obligations, and to find out whether your technology project is helping to reach goals set out at the start of the project. You may also intend to use the evaluation to inform investment decisions, or to influence stakeholders, to change organisational culture, or to provide feedback to service users (see Rethink Partners and the Local Government Association, 2021).

Deciding on the intentions of the evaluation at the outset will help you to shape your plans. It will direct what kinds of questions you should be asking, what kinds of data you will need to answer those questions, and your approach to sharing your findings at different stages of the evaluation process.

### 2. What do you want to measure?

- What inputs and outcomes do you want to measure?
- What do you want to find out?
- What do you and your stakeholders need to know?

There are many different things which an evaluation could seek to measure. You may wish to think about: personal goals of participants, such as the extent to which they feel they have control over their daily lives; whether the service has prevented health problems, such as whether hospital admissions have been reduced, or whether potential issues have been caught before crisis point; people's experiences of the service itself, such as whether they are satisfied with the support they are receiving, and whether they feel they are getting good

value for money; socio-economic impacts; and impacts on staff, such as how they feel about the training they have received, or whether they think the technology is helping them to improve the service they provide (see NHS Commissioning Assembly, 2015).

### 3. How often will you collect data?

- At what intervals will you collect the data?
- Will you look to establish a baseline?
- How will you track progress?

The purposes of the data, who is analysing it, how challenging it is to generate, and what types of data will be needed are all factors which affect the decision around how often to collect data (see Rethink Partners and Local Government Association, 2021). Collecting data both at the outset, and towards the end of the project is common, and allows a baseline to be established against which progress can be compared (see Davies and Newman, 2011).

Collecting data at regular intervals is useful for establishing whether or not the project is running according to plan and is meeting the project aims, to identify any issues, and to make changes to the technology project where necessary.

### 4. What types of data will you collect?

- Will you collect quantitative or qualitative data?
- What kinds of data will best support your purposes?
- What kinds of data do you have the capacity to collect and analyse?
- How much data will you need?

There are various different kinds of quantitative data and qualitative data, and different evaluation techniques are associated with each (see Gov.uk, 2018).

Surveys and questionnaires are often used for collecting quantitative information, and this method can be used to gather data from large groups (Gov.uk, 2018). These methods can be useful for exploring the impact of a service on participants before and after taking part. It is possible to capture data on a range of topics, and various styles of questions can be employed. For example, respondents might be asked to provide basic demographic information, to select which technologies they have been using from a drop-down list, to

state how often they undertake a particular activity, or to rate how they feel about certain issues on a sliding scale (e.g. from strongly disagree to strongly agree) (ibid.).

There are numerous methods of collecting qualitative data (Gov.uk, 2018). This might include interviews with service users, staff, or other stakeholders. Interviews are often semi-structured, whereby the interviewer will have a list of pre-determined questions or topics to raise, but is free to ask additional questions depending on the issues raised by the person being interviewed. This enables interview participants to raise topics which may be relevant to the evaluation, but which the interviewer may not have previously thought of. Evaluation studies commonly use focus groups, whereby small groups of service users or other stakeholders are invited to a group discussion, facilitated by someone who will ask a series of questions, or provide prompts. Where possible, it is useful if the person running interviews or focus groups does not know the participants or is not directly involved in running the service being evaluated, as this can help participants to feel more able to share their honest views (ibid.).

Mixed-methods studies may use a combination of qualitative and quantitative data.

## 5. How will you track change?

- How will you know whether your project is working?
- What are you comparing your outcomes to?
- Will you use a control group?

There are various different ways of tracking change, and different approaches to evaluation use different ways of working out how the project being assessed has changed things for service users, or for the organisation running the service (see Davies and Newman, 2011; NHS Commissioning Assembly, 2015).

Some studies use a control group. This method is often used in clinical trials, and may not be practical for evaluating technology projects. Another option is to use a quasi-control group, whereby data is collected both from technology service users, and from a similar group who is not using the service being evaluated. Establishing a baseline against which outcomes can be compared is a practical approach, which requires fewer resources than running control groups or quasi-control groups. Baselines can be established using either qualitative or quantitative data (ibid.).

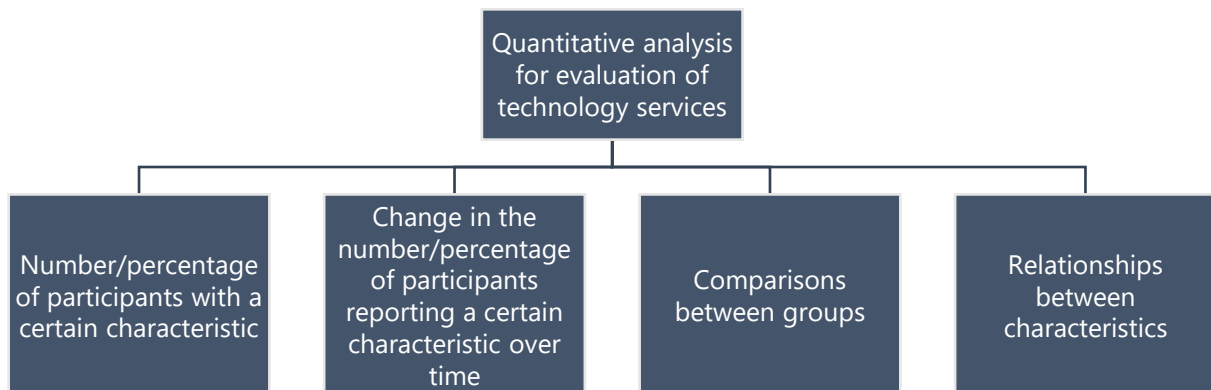


## 5. Analysing data

Once data has been collected, it will need to be analysed. This is about asking what the data shows. Some kinds of analysis are more time-consuming than others, and so a key consideration when deciding on what analysis will be undertaken is the organisation's capacity.

Qualitative data can be usefully analysed through a careful reading of the data, during which themes can be identified (see Gov.uk, 2018). It is useful to code the data by labelling sections of notes and transcripts from interviews or focus groups according to the themes which they reflect. Once the coding has been completed, the codes can be used to organise the data by picking out prominent themes, and interesting points. This will enable identification of important issues and ideas raised by the evaluation, and is crucial for making sense of the data. This can be done manually, or with the aid of computer software, such as NVivo.

Quantitative data analysis requires a different approach. Depending on the purposes of the evaluation, and on what kind of evidence is needed, there are simple and more complicated approaches to quantitative data analysis which can be employed (Gov.uk, 2018; Evaluation Works, n.d.). Software for quantitative data analysis includes Microsoft Excel, SPSS, and Stata. Some examples of the kinds of things which evaluations may seek to analyse through quantitative methods are indicated below (see Gov.uk, 2018):



## 6. Problems to watch out for

There are a number of potential pitfalls to navigate in implementing an evaluation, which are outlined below (based on NHS Commissioning Assembly, 2015). Being aware of these from the outset of a technology service pilot can be helpful in avoiding or responding to arising issues.

### Attributing outcomes to technology

- It can be difficult to know whether beneficial outcomes are attributable to the technology being trialled, or are as a result of the service more broadly, or other external factors.
- Using a control group or quasi control group, and establishing a baseline can help.

### Sample size

- The appropriate sample size for the evaluation will depend on the number of people taking part in the technology service trial, as well as organisational capacity for data collection and analysis.
- If sample size is too big, this will make analysis difficult, while if the sample size is too small, it may be difficult to make robust claims based upon it.

### Participant drop-out

- Participants may drop out of the evaluation over time. Some may decide using a technology service is not for them, while others may elect not to participate in the evaluation.
- It is advisable to recruit more participants for the study than will be necessary for a robust evaluation, in order to allow for drop-outs.

### Confidentiality and anonymity

- Many evaluations will make participants anonymous.
- Participants should be provided with clear information about how their data will be used, and whether it will be attributable to them, before they decide whether or not to take part.
- Using external interviewers rather than internal staff to collect interview data may mean participants feel more able to give their honest views.

### Response rates

- If it proves difficult to secure responses to requests to fill in surveys or participate in interviews, it can be useful to attempt to gather data using multiple approaches.
- Some people will prefer to take part in the evaluation face to face, while others prefer telephone calls, contact by post, or online calls.
- Reminders can be sent to complete questionnaires.

### Interpreting questions

- If survey and questionnaire questions are too complicated, or are not worded clearly, different participants may interpret them in different ways.
- Questions should be clear and precise to minimise misunderstandings.

## 7. Important considerations

Some important considerations when delivering an evaluation of a technology service are set out here (see NHS Commissioning Assembly, 2015):

### Consent

- Informed consent should be sought from all participants in the evaluation.
- Participants should be given accessible information about the evaluation, its purpose, and how data will be used and shared.
- Participants should be made aware of their right to withdraw their participation at any point during the evaluation process.

### Assigning responsibility

- Who is responsible for each aspect of the evaluation should be made clear from the beginning of the process.
- Someone should be responsible for ensuring service users, staff, and other stakeholders are aware that the evaluation is taking place and that data is being gathered.

### Anonymity

- Where participants will remain anonymous, care should be taken to ensure identifying details are removed.

### Ensuring understanding

- The evaluation plan should be clear and easy to understand.
- A clear explanation of what data is being collected, why, and when, should be available to all interested stakeholders.

### Quality assurance

- Regular checks should be made to ensure that the data being collected is of good quality, and is sufficient for the purposes of the evaluation.
- This will also require checks on the robustness of analysis.

## 8. Resources

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This simple evaluation toolkit draws upon a number of sources, which you may find useful for providing more detailed information on some of the points raised. These can be found at:

- Davies, A., Newman, S. (2011) Evaluating telecare and telehealth interventions. WSD Action Network. Available here:  
<https://www.kingsfund.org.uk/sites/default/files/Evaluating-telecare-telehealth-interventions-Feb2011.pdf>
- Evaluation Works (n.d.). Evaluation Works Toolkit. Available here: [Home - Evaluation Works \(nhsevaluationtoolkit.net\)](http://Home-EvaluationWorks.nhsevaluationtoolkit.net)
- Gov.uk (2018) Evaluation in health and wellbeing. Available here:  
<https://www.gov.uk/government/collections/evaluation-in-health-and-wellbeing>
- NHS Commissioning Assembly (2015) Technology Enabled Care Services. Resource for Commissioners. Available here: [https://www.england.nhs.uk/wp-content/uploads/2014/12/TECS\\_FinalDraft\\_0901.pdf](https://www.england.nhs.uk/wp-content/uploads/2014/12/TECS_FinalDraft_0901.pdf)
- Rethink Partners and the Local Government Association (2021) Digital Care Technology: Care Technology Outcomes Framework. Available here:  
<https://wordpress-585286-3406226.cloudwaysapps.com/wp-content/uploads/2021/02/Care-Technology-Outcomes-Framework-FINAL.pdf>