

Evaluating the Use of My Health Guide (rebranded as Hear Me Now)

The Application and the Evaluation

My Health Guide (Hear Me Now) is a digital application for use by people with learning disabilities and/or autism. It enables them to record in a variety of easy to use ways (photos, videos etc) important things about their lives, it can provide them with information that helps them with daily routines and it can be used to communicate their likes, dislikes, needs, hopes etc to everyone involved in caring for them and supporting them. For people who have difficulty with normal forms of communication it provides an important way in which their voice can be heard.

The Institute were commissioned to undertake an evaluation of My Health Guide as part of the NHS Digital funded Social Care Pathfinder programme. In the programme Hft, a major care provider for people with learning disabilities, and Maldaba, the developer of My Health Guide, rolled-out the digital app in Hft and in a number of other care providers in Hertfordshire. The project took place from January 2020 to January 2021 which was during the period of the Covid pandemic and this limited the extent of the roll-out and limited the way we could undertake the evaluation.

The most important feature of the roll-out was that it was not possible to offer training directly to the target end users. Instead nearly 100 support staff and others in care provider organisations were trained to use My Health Guide and they introduced it to the people they supported. Similarly, in the evaluation, it was not possible for us to talk directly to the end users and our major source of evidence was the people supporting them.

There were two themes to the evaluation. What adoption process was necessary and what benefits were achieved? We used an action research approach, working closely with the project team in Maldaba and Hft and providing them with regular formative evaluation reports as the roll-out proceeded. In the course of the project we made three questionnaire surveys (of expected benefits, or achieved benefits and of specific stakeholder perspectives in relation to detailed case studies) and we conducted a range of semi-structured interviews with key staff in the care providers to track the issues in the adoption process.

In total about 100 people with learning disabilities and/or autism began using My Health Guide supported by staff in 11 different services. The next two sections summarise the findings on benefits achieved and the adoption process.

The Benefits: The Belief and the Achievement

There was widespread agreement amongst the staff of care providers at the beginning of the project that My Health Guide could bring many valuable benefits to their clients and to those that support them: families, support staff, NHS agencies and so on. At the end of the project there was still a strong belief in the potential of the application of My Health Guide but a little disappointment that more could not have been achieved in the time available. The main obstacle to progress was the difficulty of getting clients started with the app during the Covid epidemic and then sustaining that usage. For some services Covid meant they struggled to get any clients started but there were many others where there was real progress and therefore real evidence of the benefits that could be achieved.

At the beginning of the project we used a Theory of Change approach with the project leaders in Maldaba and Hft to identify twelve major kinds of benefit that might be achieved with the help of My Health Guide.

They ranged from ‘clients becoming more independent’ to ‘savings for the health service because the health of clients was now better managed’. At the end of the project the benefits where there was most progress (in order of achievement) were:

1. Better communication by or to people with learning disabilities and/or autism
2. More independence and engagement in decision making by people with learning disabilities and/or autism
3. More effective support by key support workers
4. Improved care processes by care provider organisations
5. Improved health and well-being for individuals with learning disabilities and/or autism

Other hoped-for benefits, for example, ‘greater family engagement’ and ‘cost savings for the NHS’ were less in evidence. In the time period of the project the immediate gains were to the client and those closest to them. It may take longer for others, such as GPs, to become directly involved and to appreciate the benefits that usage of My Health Guide might bring.

We obtained detailed case accounts of many people with learning disabilities who were making regular use of My Health Guide and developed specific stakeholder questionnaires to obtain a multi-perspective assessment of the activities involved in using My Health Guide and the benefits obtained (for example, by the client, the support worker, the care provider organisation, the GP etc). There were examples of people becoming more independent by using the app to support the management of their diet, to follow the routines needed to manage diabetes and to enable a person to take a shower without a support worker being present. Others were using it enable them to communicate more effectively, for example, to prepare what they wish to say when they attend a GP consultation. The information that they or their key workers put into My Health Guide was also of value to support workers. It could, for example, be of considerable value to new members of staff or agency workers, enabling them to gain an early understanding of the person with learning disabilities.

The Adoption Process: The Work Needed to Get the Benefits

The evaluation also studied the process that was necessary to help people with learning disabilities make sustained use of My Health Guide and thereby get the benefits of its use. The stand-out conclusion was that this process depended heavily on the degree to which key support workers and parents who are also the primary carers were able to help their clients with My Health Guide. They may need to help them to use digital devices and the digital app, help to identify what value it may have for a particular client, put in information to get them started and continue to use it on a regular basis with the client.

One issue that key workers often struggled with was identifying which clients could get the most benefit from the use of My Health Guide. The factors that emerged as most important were:

- The ability of the client to use digital devices
- That there was a particular objective the client was trying to achieve that the app could help with, for example, communicating with health agencies about a particular chronic condition
- That key workers were able to give the client the support they needed to use the app both in the short term and in the long term.

Adoption of a new digital app is often thought of as a short-term exercise: getting users up to speed in how to use it. The evaluation made clear, however, that for this population of users and its community of carers to get real benefit from My Health Guide, the adoption process needs to be sustained over a much longer period of time. Many of the benefits are only obtained when stakeholders in the wider support structure, for example, families, GPs, therapists, commissioners of support and so on, appreciate the progress made by the client and respond by changing their own care and support practices.

Tools for the Future

As a result of the evaluation we have put together two frameworks that we believe will help anybody in a health or social care setting to adopt a digital application like My Health Guide:

- A blueprint for adoption that specifies the tasks that need attending to in the short-term and long-term to achieve sustained adoption.
- (In order to support evidence gathering about the value of using the app), a process that defines the benefits that might be achieved, spells out the activities that have to be undertaken to get the benefits and assesses in a measurable way the benefits that have actually been achieved.

These two frameworks are presented below.

Two Final Comments

We have been reminded in this evaluation of a conclusion we have drawn in many other studies.

Progress with adopting a digital application into a complex organisational setting is greatly enhanced if it is perceived to be a way of implementing a major policy objective of the organisations involved. In the case of My Health Guide many of the care providers had a policy objective of delivering more person-centred care or, more specifically, hearing more clearly the needs and wishes of their clients and developing their support practices accordingly. My Health Guide provided just the tool needed to pursue such a policy.

On the methodology front we were able in this evaluation to make use of a variety of approaches all within an action research strategy that recognised that the adoption of the digital app was a sociotechnical systems change process because of the complex support environment involved in social care. Within this context we used Theory of Change, Logic Models and Stakeholder Analysis and, for the assessment of benefits, explored the Social Value of Investment approach. All of these methods fitted well into a programme that started with initial hopes, tracked the process of adoption and assessed the benefits for different stakeholders as adoption occurred.

Annex 1: A Blueprint for the Adoption of a Digital App for Use By Clients in a Social Care Environment

1. The Scope of the Blueprint

In the evaluation of My Health Guide and in the evaluation of other digital apps for use within health and social care we have been able to track the process of adoption and identify the work that needs to be done by different stakeholders if the benefits of the app are to be achieved. As a result we have put together a blueprint that identifies all the tasks that are necessary in the short and long term to achieve sustained usage of a digital app.

In presenting the blueprint we have used My Health Guide and the social care environment that supports people with learning disabilities and/or autism as an exemplar of the application of the blueprint. However, we believe the blueprint, with relatively minor adjustments, could be applied to other digital apps being adopted in other social care settings. This is because although some of the tasks are specific to the digital technology the majority are about the intended users of the technology and the organisational setting that supports them.

The scope of the blueprint is therefore:

Any digital app application that is intended for use by a person in receipt of social and/or health care who is cared for or supported by providers of social and health care

2. A Blueprint for the Adoption of Digital Applications: A Maturity Capability Approach

If they are to deploy digital aids successfully to potential users, technology suppliers, care and health providers need to undertake a range of activities perhaps better expressed as a series of tasks. As a result of the examination of the adoption process for My Health Guide we have identified many tasks that were common to all the care providers that were involved in the project. By making a comparison with the adoption process we have identified in the evaluation of other digital applications we conclude that these tasks are across digital applications in the world of care and support. The tasks are all required although the form they take will vary from application to application.

In presenting the blueprint we have used the Maturity Capability Assessment Approach to display the tasks that need undertaking. The aim of this approach is to provide a self-evaluation tool that enables people about to set off on a new change process to assess the extent to which they already have processes in place to undertake necessary tasks. By adopting this approach we aim to achieve two objectives:

- i. To recognise that in many instances organisations will already have in place processes to do the necessary work
- ii. By inviting a self-evaluation, to encourage people responsible for change to identify gaps early in the process and set in motion process improvements that will ensure the tasks can be undertaken when they are required.

There are a variety of maturity assessment frameworks in use and for the blueprint we used the one depicted in figure 1 which comes from the security industry.

	Initial 1.0	Developing 2.0	Defined 3.0	Managed 4.0	Optimized 5.0
People	Activities unstaffed or uncoordinated	Infosec leadership established, informal communication	Some roles and responsibilities established	Increased resources and awareness, clearly defined roles and responsibilities	Culture supports continuous improvement to security skills, process, technology
Process	No formal security program in place	Basic governance and risk management process, policies	Organization-wide processes and policies in place but minimal verification	Formal infosec committees, verification and measurement processes	Processes more comprehensively implemented, risk-based and quantitatively understood
Technology	Despite security issues, no controls exist	Some controls in development with limited documentation	More controls documented and developed, but over-reliant on individual efforts	Controls monitored, measured for compliance, but uneven levels of automation	Controls more comprehensively implemented, automated and subject to continuous improvement

Figure 1. A Security Approach to Maturity Capability Assessment (Blum 2020)¹

The approach recognises that organisations may have in place anything from a rudimentary approach to the relevant tasks to a very mature approach that is well documented and resourced. The five levels of maturity in this particular approach are defined as follows¹

1.0 Initial No process currently exists for undertaking the required task and staff independently of one another define for themselves what is needed in the situation they are dealing with.

2.0 Developing There is recognition of the need and some sharing of ideas and experiences but no agreed process or documentation.

3.0 Defined An agreed way of undertaking the task has been defined with roles, responsibilities and processes documented to some degree.

4.0 Managed Resources for undertaking the task have been allocated and the process is monitored and managed so that performance can be assessed

5.0 Optimised Learning processes are in place by which performance can be regularly evaluated and process improvements made.

The authors of this framework have divided the detailed definition of each level into three parts: what people are involved, what process is being followed and what technology is being used. This is a structure that recognises the sociotechnical nature of organisational work and we have endeavoured to follow a similar approach in defining what needs to be done to adopt a new digital tool.

¹ Blum D. How to Assess Security Maturity and Make improvements Feb 2020 <https://security-architect.com/how-to-assess-security-maturity-and-roadmap-improvements/>

3. The Work Required of Care Providers to Promote the Use of Digital Applications

In order for people who have learning disabilities and /or autism to use a digital application like My Health Guide effectively they need help from their care providers. In order for the benefits of the app to be achieved it is also likely that other stakeholders, for example, care givers and support workers, will also need to use the application of change the for work they do as a result of the use of the applications, i.e. this is not just about the adoption of new technology, it is about sociotechnical change.

As a result of the data we have gathered during the Pathfinder Project we have identified a variety of tasks that this entails. These tasks can be divided into two categories:

- A. The process of initial adoption: e.g. getting clients started with the digital application.
- B. Sustaining usage and getting the benefits: e.g. ensuring clients keep using the application, that they get benefits from its use and that everybody associated with them works to ensure the widest possible forms of benefit are achieved.

A. The Process of Initial Adoption

In Table 1 below we have identified the work tasks in the initial phase of adoption and placed them in a table for the assessment of levels of maturity. The aim is that the self-evaluator makes a judgement of the existing level of maturity of processes within their organisation for undertaking each of the tasks. In our evaluation work we often find that mature processes exist for some of these tasks, for example, preparing business cases for digital apps, but not for others, for example, assessing the value of the app for each client.

The Process of Initial Adoption	Level of Maturity				
	Initial <i>Each team does it their own way each time</i>	Developing <i>Some sharing of ideas and emerging common practice</i>	Defined <i>A way of tackling the task has been agreed and documented</i>	Managed <i>The process is monitored and performance assessed</i>	Optimised <i>Regular evaluations lead to continuous process improvements</i>
A.1 Preparing and agreeing a business case for MHG					
A.2 Selecting appropriate clients					
A.3 Identifying/training champions who will mobilise usage					
A.4 Training support workers					
A.5 Identifying the value of MHG for each client					
A.6 Preparing for MHG usage, e.g. tablets, wifi					
A.7 Organisational preparation, e.g. Risk assessments, permissions, records etc.					
A.8 Monitoring and evaluation procedures					

Table 1: Assessing the Level of Maturity of Work Required to Achieve Initial Adoption

The eight tasks identified in the table can be undertaken in many different ways depending on circumstances. There is no one right way to do them. In a large care provider organisation there might for example be central services that can deal with some of these tasks while local services undertake the tasks that are directly ‘client facing’. In a small organisation, all of the tasks may fall on those in the front line delivering care. It is not therefore the intention of the blueprint to specify how each task should be undertaken but to enable change leaders to assess how well prepared their organisation is and to formulate plans to undertake each task where there is a gap in current provisions. The following notes about each of the tasks are therefore limited to statements about the aims and the general issues in each case and are specific to the My Health Guide.

A.1 Preparing a Business Case

The adoption process is preceded by a decision making process in the care provider that leads to the decision to purchase or otherwise acquire the digital application. The business case is likely to require some form of cost-benefit analysis which will mean there will be a need to specify what kinds of benefits the adoption of the application might lead to.

A.2 Selecting Appropriate Clients

People with learning disabilities and/or autism vary enormously in the type of disability and the extent to which it is mild or profound. It is likely that any digital application will be more appropriate as a personal tool for some clients than others and the care organisation will need to work out the criteria for offering the application to clients that are appropriate in their circumstances.

A.3 Identifying and training ‘champions’

In a care provider organisation of any size there are likely to be many members of staff who will need to know about the digital application and to ‘buy in’ to its potential benefits. The organisation will need to identify and train people who can take responsibility for promoting the application amongst their colleagues. The term ‘champion’ is often used to describe this role. In addition to being able to ‘sell’ the application to their colleagues, the champion may also need to help local managers and staff with all other tasks in this list (Table 1) and the next one (Table 2).

A.4 Training support workers

Each client is likely to have one or more key support workers who best understands them and who are responsible for the delivery of tailored care to them. These people will need to play the pivotal role in introducing the application to the client and encouraging its use. They will need training in the new application so that they can then help their client to use it. Training will need to cover practical aspects of working with the application but may also need to help the support worker understand the benefits clients might derive from its use.

A.5 Identifying the Potential Value of My Health Guide

Whilst some clients may see immediately the help that My Health Guide may be able to give them, there will be many who will need the help of their support staff to work out what would be of value.

A.6 Preparing for the Use of My Health Guide

There may be many practical considerations to address before a client is able to use My Health Guide. It will be necessary to install the application on a suitable device. If the client already makes use of a phone or tablet, for example, this may not be a problem. However, if they are new to this form of technology it may be necessary to acquire an appropriate device and teach the client how to use it before helping them use My Health Guide. It will also be necessary to ensure the client has periodic access to the Internet.

A.7 Organisational Readiness

The support of people with learning disabilities and/or autism is highly regulated and there are many procedures to follow, records to be kept etc. The process of offering the use of an app like My Health Guide may have implications for these procedures. It may, for example, be necessary to conduct a risk assessment to ensure it will be safe for the client to use My Health Guide.

A.8 Monitoring and Evaluation

The Care Provider organisation will have acquired My Health Guide or a kindred product in the expectation of achieving certain benefits. It will be necessary to establish a monitoring process that tracks how well the adoption process goes and whether all the clients who could benefit have begun to use it.

B. Sustaining Adoption and Getting the Benefits

The tasks necessary to harness the potential of an app like My Health Guide do not end once a client starts using the app. There may be a number of tasks to undertake to help clients sustain and develop their usage. There will also be a need for stakeholders working with the client to evaluate how they may change their working practices. Many of the benefits of using the app may only be realised when all the people who engage with the client also become aware of its use and adjust their own methods of working in appropriate ways. The staff of the care provider organisation will need to play pivotal roles if the app is to have this longer and wider impact. Table 2 lists the tasks that it may be necessary to perform although not all will be appropriate in all circumstances. It is the performance of these tasks that will help to embed the use of the technology into the normal way the provider organisation fulfils its duties to its clients.

The Process of Sustaining Adoption and Getting the Benefits	Level of Maturity				
	Initial	Developing	Defined	Managed	Optimised
	<i>Each team does it their own way each time</i>	<i>Some sharing of ideas and emerging common practice</i>	<i>A way of tackling the task has been agreed and documented</i>	<i>The process is monitored and performance assessed</i>	<i>Regular evaluations lead to continuous process improvements</i>
B.1 Sustaining support for existing users of MHG					
B.2 Spreading usage to new support workers and new clients					
B.3 Changing care support processes					
B.4 Changing policies and organisational structures					
B.5 Changing the information and technology infrastructure					
B.6 Communicating opportunities to family, friends, NHS services and other services.					
B.7 Communicating changed					

services to regulators, commissioners and others making assessments					
B.8 Evaluating the financial benefits of using MHG					
B.9 Evaluating the effectiveness of the adoption strategy for MHG					
B.10 Evaluating the social value and other gains from using MHG: policy, business, reputational etc.					

Table 2: Assessing the Tasks Involved in Sustaining and Spreading the Use of My Health Guide

These ten tasks can be grouped under four broader headings as follows:

Sustaining and Spreading Usage

B.1 Sustaining Support to Existing Clients

For many clients the support worker will need to have a continuing role in helping with the use of the app, from inputting information for the client to helping them use it to communicate with others and suggesting new uses they might make of it.

B.2 Spreading Usage to Other Clients

It is likely that, early on, only a few of the clients supported by the care provider will have started using My Health Guide. Once they have some experience of its use the support workers may well conclude that other clients may benefit and they will know more about how to introduce it to them.

Changing Processes Within The Care Provider Organisation

B.3 Changing Care Support Processes

Once clients start making use of My Health Guide and, for example, can do more things independently, it may change the kind of support they need from their support staff. It might mean there are savings because they need less support or perhaps that the support can change in its form to being less a case of doing things for the client and more a case of helping them do things for themselves. Whatever the trigger for change, there will be a need to re-think the kind of daily support being provided.

B.4 Supporting Policies and Changing Structures

If a critical mass of clients begin to use My Health Guide in a sustained way, it may well be that it makes possible a more comprehensive review of how the care provider is supporting its users. A care provider may, for example, have a policy of promoting more person-oriented care and it may now see ways in which the use of the app can increase its ability to deliver this policy. It may also lead to a re-thinking of organisational structures, for example, the deployment of staff or the training given to staff. There is, for example, evidence from the project that the information clients hold in My Health Guide can be a great help to new staff who are just getting to know the clients.

B.5 Changing IT systems and regulatory procedures

My Health Guide provides a novel way of logging information about clients which may have implications for other IT based record systems that staff are required to maintain. There could well, for example, be gains to be made by avoiding the duplication of record systems.

Communicating with Other Interested Parties.

B.6 Communicating with families, the NHS and other agencies

Many of the potential benefits of the use of My Health Guide depend upon the engagement of others who are involved in the care and support of clients. If they are able to share in how the client is using My Health Guide they may be able to change how they support the client to the advantage of all. Families, for example, may benefit by being able to share more fully in the life of the client and be better able to advocate for them. NHS staff may benefit from being able to read in My Health Guide what the client has recorded before an appointment. The relevant interested parties will probably know little in advance about the client's use of My Health Guide and it will again fall upon care provider staff and support workers in particular to alert them to new opportunities for communication/sharing information.

B.7 Communicating Changes to Regulators and Commissioners

There will be a number of agencies, for example the CQC, who will be making assessments of the support services provided by the care organisation and the use of My Health Guide may well be of interest to them. It will be for the management of the care provider to ensure that the evidence from the use of My Health Guide is marshalled in appropriate ways to reflect the gains being made.

Monitoring and Evaluating Progress

B.8 Evaluating the Financial Benefits of Using My Health Guide

If investment in the app is to be continued it is likely that there will be a need to demonstrate that it has been cost-effective in its implementation in the care provider. To this end an evaluation process needs to be established to collect appropriate evidence.

B.9 Evaluating the Effectiveness of the Adoption Strategy

If adoption is to be sustained and spread the adoption process that has emerged within the care provider needs regular evaluation to determine its strength and weaknesses.

B.10 Evaluating Other Gains

Although a financial evaluation may be necessary, the central purpose of this app is to provide social value for the clients of care providers. An evaluation is therefore required to give at least qualitative expression to these less quantifiable, benefits (as documented in the Benefits Assessment Process described below)

4. The Adoption Process in the Short and Long Term

One vision of the adoption process for new technology is that it is of relatively short duration and ends when new users have mastered it sufficiently to proceed with usage on their own. The adoption process we have witnessed in the MHG evaluation and in other studies is very different. Although the duration of the My Health Guide study was too limited for us to track the full adoption process it is clear that, if the full benefits of an app like My Health Guide are to be realised, a sustained process of adoption is needed that goes well beyond the initial take-up by clients. The many tasks that the staff of the care providers have been undertaking (or are contemplating undertaking in the future) amount to an on-going adoption process that will involve not only technical change but also adjustments in the way care provider organisations and

associated agencies work. What may start as a technical change in the short term needs to become a sociotechnical change in the longer term if the full benefits of My Health Guide or similar digital products are to be achieved.

5. The Implications for Technology Providers

The technology provider in the My Health Guide project played a major role in the adoption of the digital app by the various care providers and, although it was not a central feature of the evaluation work, it is possible to also list the tasks that any technology supplier could beneficially play to facilitate the adoption of similar products in similar settings. In many respects the list is the mirror image of the tasks the care provider needs to undertake.

Some of these tasks, listed in Table 3 below, are obvious, particularly those that are about the adoption of an unfamiliar technology by the staff and clients of the care providers. Others, however, are about organisational and learning issues that are not the direct responsibility of the technology provider. They are, however, tasks that care providers may have difficulty with because they are unfamiliar with the issues that arise in getting a particular technology product adopted. The technology supplier has the advantage of being involved in many different adoption processes and may well have learning that can usefully be shared with those coming new to the process. There may therefore be ways in which the technology supplier can support the care provider in these tasks. The list mirrors the issues the care provider has to deal with, as listed in tables 1 and 2. However, because we have not addressed this issue in a systematic way in our evaluation work there may be other tasks that need adding.

The Process of Helping A Care Provider Embed Use Of My Health Guide in their Organisational Practice	Level of Maturity				
	No Support or Just Initial Steps <i>Done anew with each application</i>	Developing <i>Some sharing of ideas and emerging common practice</i>	Defined <i>A way of tackling the task has been agreed and documented</i>	Managed <i>The process is monitored and performance assessed</i>	Optimised <i>Regular evaluations lead to continuous process improvements</i>
C.1 Providing evidence to support a business case for My Health Guide					
C.2 Advising the Care Provider on the development of an adoption process					
C.3 Training support workers in the how to use My Health guide					
C.4 Helping staff select clients to use My Health Guide					
C.5 Helping to set up the technical infrastructure and devices to use My Health Guide					
C.6 Advising on the sustaining and spreading of usage					
C.7 Advising on the engagement of other agencies					
C.8 Responding to requests for further development of the app to					

meet emerging needs					
C.9 Providing feedback to the Provider on usage patterns and emerging issues					
C.10 Evaluating the adoption process and the realization of benefits					

Table 3: Assessing the Tasks Involved in Supporting a Care Provider

The tasks listed in Table 3 are of two kinds:

1. Directly related to the technology being deployed (C1, 3, 5, 8 and 9)

The evidence base that shows the benefits that can be achieved by using My Health Guide will come from previous deployments of the app and will need to be shared with prospective care providers to enable them to make their own assessment of the merits of deploying it themselves (C1). If that decision is taken it will be necessary for the technology supplier to train staff in the operational use of the app (or to train people in the care provider who can then undertake the internal training) (C3). There may be other technical issues the care provider needs help with including the devices upon which ‘My Health Guide’ is installed and the provision of appropriate network connections in the locations where clients live (C5). As usage spreads there may be requests from the care provider to enhance the technical service as staff begin to realise which features/adaptions would be really helpful to their clients (C8). The technology supplier will also have data about emerging usage patterns and technical issues that are being encountered which could provide valuable feedback to the managers of the care provider (C9).

2. Related to spreading usage and realising benefits. (C2, 4, 6, 7 and 10)

The issues that belong within the province of the care provider but which are likely to be new to them in respect of the form they take in the deployment of My Health Guide are as follows. The care provider will need to develop an adoption process by which support staff can be introduced to the app and they in their turn can introduce it to their clients (C2). There will be immediate questions about which clients would benefit from using the app and whether they have the capability to use it. A closely connected issue is how much resource it would take from the care provider to support the client in using it (C4). The support staff will then have the task of helping clients set up My Health Guide in ways that serve their particular needs and of supporting them in sustaining and developing their use of the app (C6). In many instances the usages that clients develop will need the cooperation of other agencies, e.g. GPs and therapists, and the support staff may need to facilitate these engagements (C7). Finally, if the client organisation needs to make a judgement about whether their deployment of the app is being successful and whether it is providing social value for their clients and value-for-money, they will need a way of evaluating the progress made in adoption and in the realization of expected benefits (C10). All of these activities may be unfamiliar to the members of the care provider called upon to undertake them and the technology supplier may be able to share learning from previous deployments to help the care provider make progress.

6. Conclusion: The Blueprint and the Spread of Learning

Although this description of the blueprint uses My Health Guide as its exemplar we believe that it may also be, in large part, a useful guide to the deployment of other digital applications designed for use by people with learning disabilities and/or autism and others who are in receipt of other forms of social care. This is because many of the adoption tasks are relatively independent of the details of the digital application and are

more concerned with the organisational processes necessary to get the application into normal care and support practice.

The blueprint identifies many tasks that will need attention but it does not specify how they are to be undertaken. This is because the particular circumstances of the care provider mean they will have to decide for themselves how best to undertake the tasks. We have used the maturity assessment approach to encourage a self-assessment in each case so that the care provider starts with a clear view of what they have in place initially and what they need to develop to make adoption a success.

As more deployments of a particular digital application take place there will be an accumulation of evidence about how different care providers have undertaken the adoption process that could be helpful to any new care provider. However, they will not immediately be aware of this or how to access this learning. In the blueprint we have suggested that the technology supplier might be best placed to provide both the technical support and advice on how to engage with the necessary organisational changes. Another possibility is to create a user forum where care provider organisations making use of My Health Guide can share their experiences and their learnings.

Annex 2: Assessing the Benefits of a Digital Technology Application Delivered in a Complex Health and Care Environment.

1. The Aim and the Scope

If it is to be widely adopted any digital technology application will have to demonstrate that its use leads to benefits, preferably benefits that can be expressed in financial terms. In the My Health Guide evaluation we developed a process for specifying the benefits that the application might achieve and then, when the application had been rolled out, used this specification as assess the benefits that were actually achieved.

This process is likely to be equally appropriate for other digital products used in the health and care domain. In this section the six stages of this process are presented. My Health Guide is used as an example but the scope of the process is wider. It includes:

Any digital app application that is intended to give benefit to a person in receipt of social and/or health care and to the providers of social and health care

2. The Challenges

A process of assessing the benefit of a technical innovation would normally begin by detailing the expected benefits in a measurable form so that the assessment of what is achieved can be undertaken in a systematic way when the technology is rolled out. There are, however, a number of challenges to be met in assessing the benefits of a digital application such as My Health Guide when it is offered as a personal application for someone in receipt of care or support in a complex health and care environment:

1. The application may, like My Health Guide, be a software platform: it may offer a variety of tools to help the user and it may be very flexible in the way it can be used. As a result it can be used for many different purposes and each could result in a different kind of benefit. We cannot therefore assess the benefits by establishing a small set of expected outcomes at the outset and then measuring whether they are achieved.
2. The User Population may be very varied. In the case of My Health Guide its target users, people with learning disabilities and/or autism, differ a great deal in the nature of their disorders and whether they are mild or profound. Their needs for support will vary considerably and so too will the benefits they might look for.
3. The main beneficiary is likely to be the target users, for example a person with a learning disability and /or autism, but the beneficiaries might also be the people and agencies that provide them with support: their care workers, their families, NHS staff and so on. An assessment of benefits has therefore to examine the outcomes that might be achieved for all the different 'stakeholders' involved.
4. The outcomes for the target users, for example, a person with a learning disability and /or autism are likely to be more dominantly of social value than financial value: My Health Guide may help them, for example, to become more independent and to be able to communicate their needs more effectively. However, some of the other agencies, for example healthcare agencies, may benefit in a more quantifiable way if, for example, the patient needs less frequent intervention. Assessment of benefits has therefore to accommodate different forms of benefit.

5. There is no easy deterministic route from the deployment of the digital app to the achievement of benefits. Getting the benefits is likely to involve the mobilisation of a lot of human effort not only by the target user, for example, the person with a learning disorder and/or autism but by their support staff, parents, NHS staff and other agencies.

3. The Objective

If we are to find a way of meeting these challenges we need a specific kind of methodology that can assess the range of benefits that might be achieved with a digital application such as My Health Guide. We need one that can:

1. Capture the diversity of benefits that might be achieved
2. Demonstrate what activities are necessary and by whom, to achieve these benefits
3. Find a way of measuring each benefit and where possible place a financial value on it

To this list we must add another important consideration. Given the variety within the prospective user population the simplest approach would be to make a separate assessment of benefits for each specific case of a target user, where, for example, a person uses My Health Guide. Whilst this will be valuable information it would make it difficult to draw any overall conclusions for (say) the value of My Health Guide to a national care provider or to enable commissioners to assess its value in supporting a service. We also need a methodology that can compare benefits across individual cases so that the accumulative benefit of the use of the app can be established.

4. The Role of Social Return on Investment (SROI)

We initially looked at the SROI approach because it fitted our expectation of the kinds of benefits that the prime beneficiary from the use of My Health Guide might achieve. However, the approach did not offer a way of coping with the rich variety of benefits that might have to be assessed or to the other requirements listed above. We concluded that whilst SROI might have a role to play in the assessment of benefit we needed to use other approaches from the evaluation literature in addition.

5. A Six-Step Approach to Assessing the Benefits of My Health Guide

In the project, in order to meet all these challenges, we developed and tested a six-step methodology for the assessment of benefits. It not only utilised SROI but included other concepts and methods from the evaluation literature including Theory of Change, Logic Models and Stakeholder Analysis all set within a context of Sociotechnical Systems Change², i.e. an approach that recognises that whilst the stimulus for a change may be technical (My Health Guide) it will be used within a complex social system that will need to adapt and change if benefits are to be achieved. The sections below provide the rationale for each step and a description of what each step entails.

² Eason K. D. (2013) 'Afterword: The past, present and future of sociotechnical system theory' Applied Ergonomics, <http://dx.doi.org/10.1016/j.apergo.2013.09.017>

6. Step 1: The Theory of Change³ Driving the Adoption of My Health Guide

The Theory of Change approach recognises that each innovation is driven by a set of beliefs about what it will achieve. The beliefs may be more or less well articulated and may or may not be supported by a strong evidence base. Nevertheless, they are the basis upon which innovators and adopters proceed. The approach takes the view that the better the ‘theory of change’ is articulated at the beginning of a deployment, the more likely it is to succeed. In the current context the better it is articulated, the clearer it will be what benefits are expected and need to be assessed. An initial step in the project, before My Health Guide was deployed to new users, was therefore to work with the project team in Hft (the main adopter) and Maldaba (the technology supplier) to list the major types of benefit that they hoped would be achieved. Table 4 provides the list of 10 major benefits that were identified.

Potential Benefit	Description
1. For users it gives more independence and engagement in decision-making	For the user, that is the person with learning disabilities and/or autism, MHG provides opportunities to be more independent in managing their own daily routine, perhaps through self-management of diet, exercise or medication and also to have more say in decisions about their care which may otherwise be made for them.
2. Better communication by/to the users	The communication capabilities of MHG make it possible for the person with learning disabilities and/or autism to express in their own way their feelings and desires and this will enable key support workers and others to improve their understanding of the person. Similarly, MHG provides opportunities for key support workers and others to communicate more effectively with their clients.
3. Improved health and well-being for users	The use of MHG may lead to sustained improvements in the health and wellbeing of users as they use MHG to change their own behaviour and to influence the support and care provided for them.
4. Opportunities for more effective support by support workers	The information held in MHG and the new communication capabilities may improve support workers’ understanding of an individual and enable them to provide more effective support. This could take many forms, for example, helping their client to become more independent, helping them by co-designing communications in MHG, influencing care plans etc.
5. Better engagement and more reassurance for families and friends	The use of MHG may have benefits for family and friends. It may provide additional insights and understanding and additional forms of communication that can be reassuring to family members or friends, e.g. that the person with learning disabilities/autism is well supported. It may also enable family members to behave in different ways themselves.
6. Improved care processes by care provider organisations	The use of MHG may provide opportunities for the care organisation to change the way it operates. It may, for example, be able to change the way it formulates care plans by the more active engagement of their clients or it may change the information systems to use MHG as the

³ Funnell S. & Rogers P. (2011) ‘Purposeful program theory: effective use of theories or change and logic models’ San Francisco, Jossey-Bass/Wiley

	primary record of the support provided.
7. Better ratings by the Care Quality Commission (CQC)	The process of adopting MHG and of using it to provide more client-centred care may improve the ratings given by CQC in their assessments of the provider, e.g. in using digital technology to increase the independence of clients.
8. Better understanding of needs by NHS, Social Care and other agencies	The content of MHG and the communications it supports may provide the staff of NHS agencies, Social Care agencies and others who have occasional contact with the people with learning disabilities and/or autism with additional understanding that they can use to change the treatment and support they provide. The communication that MHG facilities may also enable people with learning disabilities and/or autism to better express their wishes about treatments and care.
9. Cost savings for NHS, Social Care and other agencies	The more self-sufficient people can become using MHG they less use they may need to make of specialist NHS and other services, thereby provide savings for these services.
10. Cost-effective care from the perspective of commissioners and other funders	Social care and NHS commissioners and other funders that provide support for people with learning disabilities and/or autism may change their support if there is evidence that the use of MHG is providing more cost-effective ways of delivering care.

Table 4: The Major Benefits To Be Expected From The Deployment of My Health Guide

Two features of this table were seen to be of particular importance. First, there are a number of different potential beneficiaries, obviously the person with a learning disability and/or autism but also their support staff, NHS agencies and so on. Second, in order for these benefits to be achieved a wide range of activities need to take place, for example the care provider might need to change the care plans it has in place for clients using My Health Guide.

To test whether views on the potential benefits outlined in Table 4 were widely shared we issued a questionnaire to people in other care provider organisations who had been trained in the use of My Health Guide to ask them what they hoped to achieve when their clients used the app. The responses confirmed that all of these benefits were important and could well be achieved but that the dominant consideration was the achievement of the first four on the list: helping the client to become more independent and communicate more effectively, leading to improved health and well-being, and enabling support workers to provide a more effective service. If these benefits could be achieved, the remaining benefits might flow from this base.

7. Step 2: The Development of an Overall Logic Model

In order to show more clearly where the benefits might be seen and what activities might be necessary to achieve them, the Logic Model approach depicted in Figure 2 was utilised.

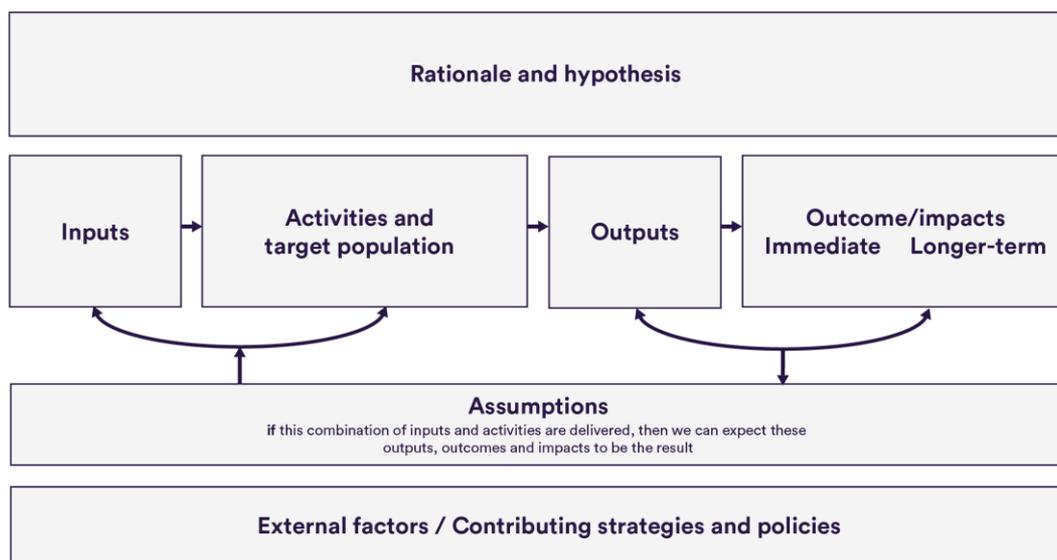


Figure 2: The Logic Model (Kumpunen S.⁴)

A Logic Model specifies the route by which a particular outcome (a sought benefit in the current context) might be achieved. It is the equivalent of specifying each part of the Theory of Change as a causal chain leading to the desired outcome. It starts with an input, for example, the deployment of My Health Guide, and then identifies the necessary activities, for example, support workers helping clients to use My Health Guide, leading to outputs, for example, the client starting to manage their own daily routines, which ultimately lead to longer term outcomes, for example, the health and well being of the clients improving.

We created an initial overall Logic Model for My Health Guide presented in figure 3. It shows the route through inputs, activities and outputs to the achievement of the desired outcomes; i.e. the ten benefits identified in the theory of change exercise. We found it necessary to specify the outcomes in a number of stages. Successful outcomes for the client when using My Health Guide could be followed by improvements within the care provider organisation and these in turn could lead to the achievement of benefits in relation to other agencies, for example, NHS services and family and friends. We suspected that not every case would follow this causal chain in a neat and tidy way but the model depicted the overall pattern that was expected.

⁴ Kumpunen S. (2020) 'Using Logic Models to Evaluate Innovations in Health Care'

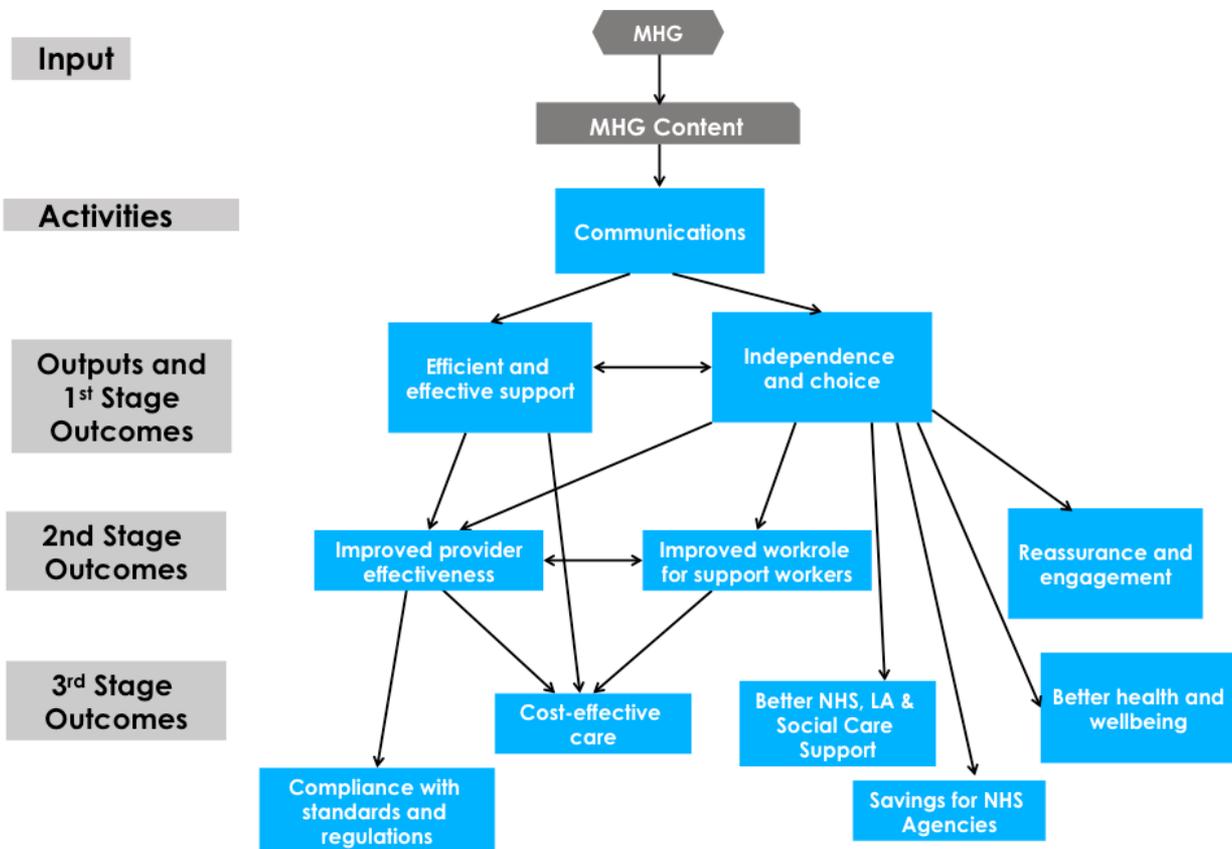


Figure 3: An Overall Logic Model Describing The Route To Beneficial Outcomes

There were however a number of limitations to this model if it was to be used to guide the assessment of benefits that were actually achieved. First, it was insufficiently detailed. It says little, for example, about how the ability of the client to communicate might change and how they might influence the care provider or a GP practice. Second, it hints at the roles being played by different stakeholders but does not make them explicit and third it assumes the activities were mostly concerned with generating content in My Health Guide and using it to communicate. It seemed likely that for any of the second and third stage outcomes to be achieved, other activities by other stakeholders would also be necessary.

8. Step 3: Stakeholder Analysis

The next step in the process was to identify each stakeholder and set up an assessment process that could establish the activities they need to perform in the adoption of My Health Guide and the benefits it might derive for them and others. Figure 4 below positions the major stakeholders in the overall logic diagram.

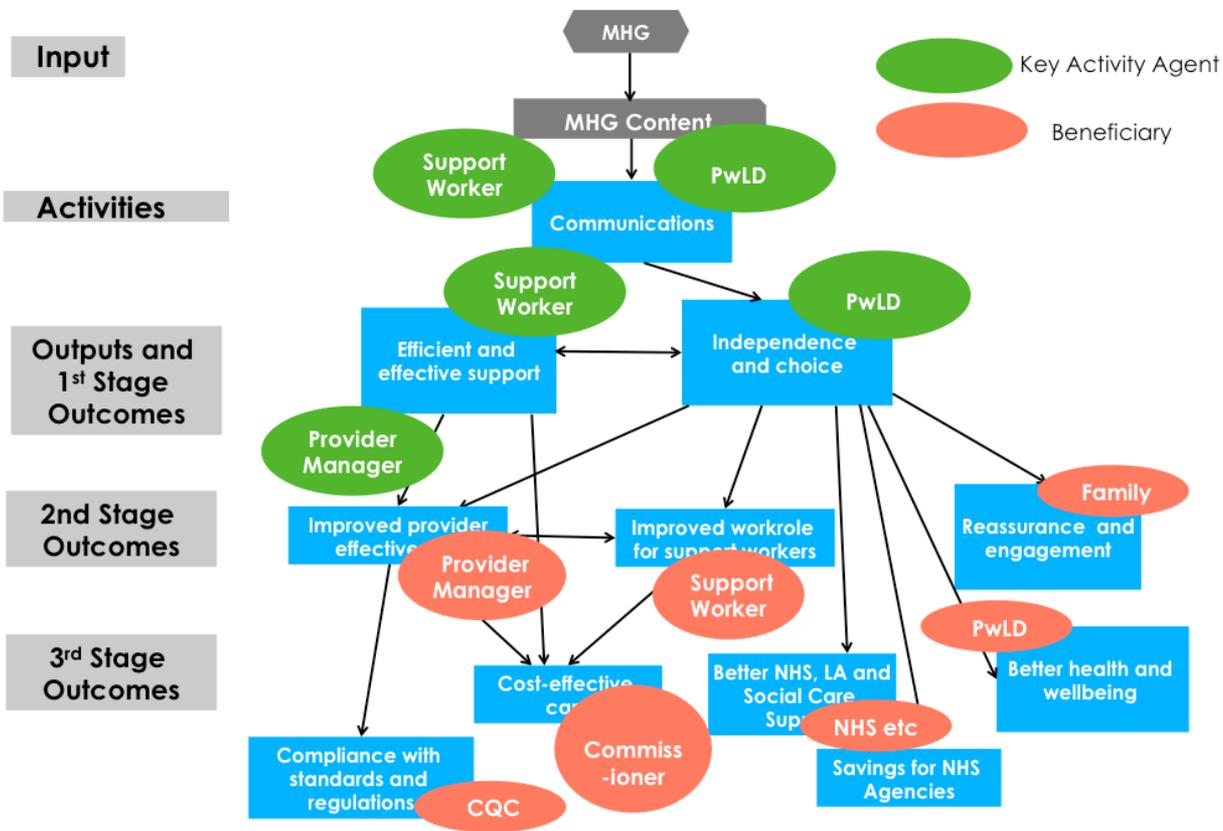


Figure 4: The Stakeholders in the Logic Model

Figure 4 identifies seven types of stakeholder: PwLDs (People with Learning Disabilities and/or Autism), their support workers, the managers of care provider organisations, family and friends, NHS and other agencies providing the PwLDs with services, commissioners of services and regulators (the CGC). It identifies the stakeholders who are the main source of activity to get My Health Guide used and which stakeholders may achieve the different kinds of benefit. One conclusion from this is that, whilst it must be the case that a lot of the activities have to go on around the person with learning disabilities and/or autism, it is not the case, as depicted here, that this will then lead directly to benefits for agencies like the NHS. In practice in order for any of the agencies listed in figure 4 to get benefits they would have to engage in some activities themselves.

The next stage therefore was to drill down to a deeper level and examine the process of achieving benefits from the perspective of particular stakeholders.

9. Step 4: Logic Models for Each Stakeholder

Each of the stakeholders is receiving inputs, engaging in activities as a result, producing outputs and hopefully getting benefits. This is the structure of the logic model and this meant that we could produce detailed and specific logic models for each stakeholder. We took five of the stakeholders and developed logic models for them: the client, the key support worker, the manager of a care provider, the family and NHS agencies. We selected these stakeholders because we had a substantial amount of information about their roles in the adoption of My Health Guide from the responses to questionnaires about care providers plans when adopting the app and from on-going discussions with the project team.

Figure 5 provides an example of a stakeholder logic model. This is for the person with learning disabilities and/or autism.

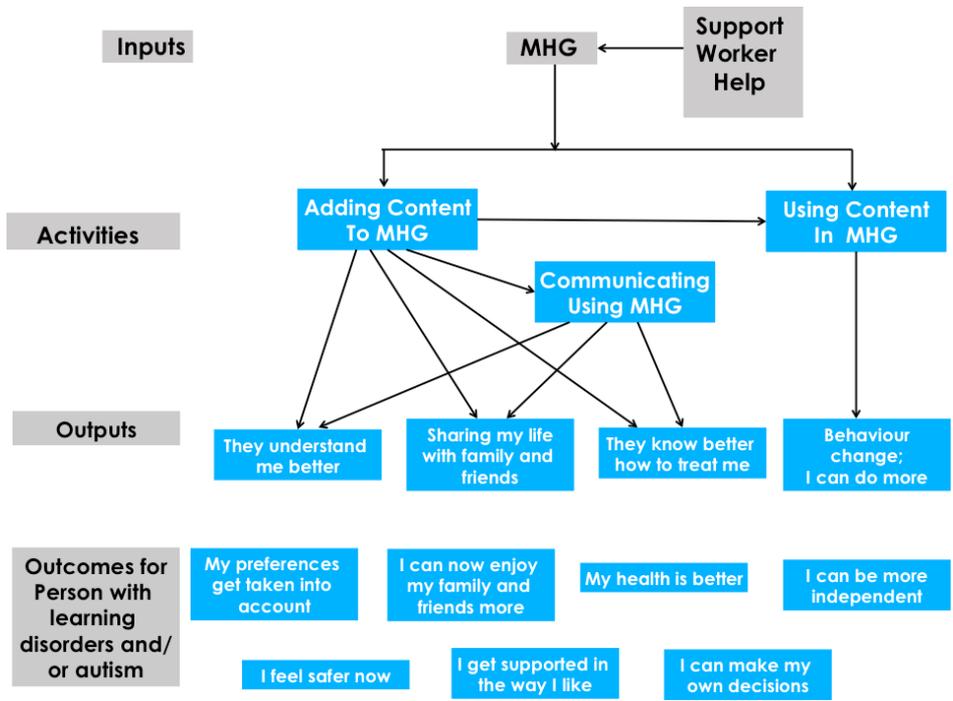


Figure 5: A Logic Model for the Adoption of My Health Guide by a Person with Learning Disabilities and/or Autism

In this case the inputs are My Health Guide and all the help that support workers and others may give to help the client get started with the app and to continue their usage of it. The logic model then depicts the activities that the client might engage in with My Health Guide and the outputs this might produce leading, for example to impacts on support workers, family and others. Finally, the short and long-term outcomes that might be achieved as a result of these activities are listed. There can be many routes to these outcomes, many of them involving the activities of other agencies, so no attempt is made to show causal routes in the diagram.

The possible outcomes listed in the stakeholder logic models include the potential benefits arising from the use of My Health Guide and a focus on a more direct association of each benefit with its beneficiary, i.e. if the client becomes better able to manage medication for a chronic condition that will be a benefit to him or her but if this also means they need fewer GP consultations that becomes a benefit to the GP practice.

10. Step 5: The measurement of the profile of benefits *achieved* in each case

The development of this approach to this point was undertaken before the main roll out of My Health Guide. After clients had been using the app for a few months it then became possible to use the approach to assess the benefits that were actually being achieved. In the study this was undertaken in two ways. First, a general questionnaire was sent to all known support workers engaged in getting My Health Guide adopted by their clients asking them to report the progress made in obtaining benefits. The other approach was to investigate specific cases where My Health Guide was in regular use and apply the stakeholder logic models to ask about benefits actually achieved. To make this investigation each logic model was used to develop a stakeholder questionnaire that covered the activities that the stakeholder was undertaking in relation to My Health Guide and the specific benefits they might be obtaining as a result. Respondents were asked to assess each possible benefit on a four or five-point scale which typically ranged from no benefit to a very significant benefit.

Do these people understand you better since you started using it?



Your family and friends

No	
A little bit	
Quite a lot	
A lot	



Your support staff

No	
A little bit	
Quite a lot	
A lot	



Your Doctor

No	
A little bit	
Quite a lot	
A lot	

Figure 6 is an extract from the stakeholder questionnaire designed to help people with learning disabilities and/or autism to report the benefits that using My Health Guide had for them. Whilst the evaluation team specified the questions and the scales, the Personalised Technology team at Hft rendered the questions accessible in a way that would enable their clients to complete it.

The questionnaire explored the potential impact of My Health Guide on (a) how they now feel (healthier, safer, more confident etc.), (b) how others now understand them, (family, doctors etc.), and (c) what they can now do (manage diet etc., tell others what they want to happen etc.),

Figure 6: Extract from Questionnaire for Clients to Assess the Benefits of My Health Guide.

The intention of the approach was to obtain a multi-stakeholder account of the activities associated with each case and an assessment of the benefits being obtained from the perspective of each stakeholder. The use of the rating scales meant that, not only could the approach assess the range of benefits being obtained, but it could also obtain a self-assessment by the people most directly involved of the significance of each benefit. Responses over the five questionnaires produced over 50 possible benefits, i.e. the 10 general types of benefit identified in the Theory of Change exercise have now been extended to 50 indicators of those benefits each with an associated measurement of scale. If further stakeholder logic models (and associated questionnaires) were developed for the other stakeholders identified in the overall logic model the number of possible benefits could be extended still further.

In the study of detailed case studies two kinds of information were obtained. Local staff provided a descriptive account of the usage of My Health Guide by a client using a semi-structured proforma and, for the same client, stakeholder questionnaires were issued as were relevant. The rating scales in the questionnaires revealed that for some clients a considerable range of benefits were being obtained across the stakeholders. In terms of the overall logic model (figure 3), the findings suggest that in early usage of My Health Guide it is the first stage benefits that are achieved. Once usage becomes embedded in routine practice more of the second and third stage benefits may be obtained.

11. Step 6: Placing a Value on the Benefits Achieved

The final stage in this approach could be to place a financial value on each of the benefits achieved that have been identified by the rating scales. The majority of the benefits identified in the detailed case studies were of social value, particularly the beneficial subjective changes achieved by the clients through their use of My Health Guide, for example, if use of the app leads to them feeling less anxious or more confident in undertaking daily routines. But a number of the benefits could also be assessed as objective changes. These were mostly benefits accruing to the care provider or to NHS services. For example, the care provider might be able to change care practices and release support staff from some of the more routine tasks involved in supporting clients or therapists might be able to give less frequent treatment or monitoring through direct contact. In these cases it would be possible to calculate the financial benefits of the changes achieved.

In the time period of the project it was not possible to explore fully the possibilities of placing financial values on the benefits achieved. In particular it was not possible to explore the application of Social Return on Investment to the social value benefits being obtained from the use of My Health Guide. The detailed case studies revealed that clients were obtaining many different kinds of benefits, for example, becoming more independent, being better able to communicate their desires and developing greater self-confidence. We reviewed a number of other case studies of the evaluation of change programmes for people with learning disabilities and/or autism that used SROI methodology. In these studies financial values were derived for similar benefits, for example, improving self-confidence, by identifying other methods by which this benefit could be derived that could be costed, for example, by sending a client on a course to improve self-confidence. In the SROI case studies for every benefit reported a mechanism was identified to provide an evidence-based financial value. The SROI movement is developing databases, for example, <https://www.hact.org.uk/social-value-bank>, that provide evidence-based proxy financial values for a wide range of social outcomes, many of which are appropriate to the learning disability sector. It could well be, therefore, that the rating scale assessments of benefits achieved in step 5 of this approach could be converted into proxy financial values. Such an approach would have to be carefully undertaken to take into consideration counterfactual, attribution and deadweight possibilities, for example, that there may have been improvements in a client's health and wellbeing as a result of factors other than the use of My Health Guide. However, if this step is undertaken, it could well be that for any location or service using My Health Guide, a full social return on investment assessment could be made.

12. Conclusions

This approach has been adopted to deal with the challenges of assessing benefits when there is diversity in the population of potential users, when the digital app in question is a platform that can be used for many purposes and when the achievement of benefits entails sociotechnical change in the care and health

organisations supporting the potential users. The approach provides a method of mapping the wide variety of benefits that might be achieved under these circumstances and mapping them to the different stakeholders who may become beneficiaries. The approach offers a series of steps that may be applicable to similar digital applications being used in similar circumstances.

The outcome of the process is a profile of achieved benefits on a standard set of scales in relation to specific client cases, across the significant stakeholders in each case. This is a very different outcome from, for example, the development of a detailed descriptive case study report for a particular client. The case study report may be able to provide a unique account that captures the dynamics of the way the client has utilised My Health Guide to meet their particular needs and the unique way their support system has enabled them to make this achievement. A case study approach is a good way to capture the 'system' in action with all its interactions between the client, the technology and the social system that supports them. But it is difficult to compare across unique cases and arrive at an assessment of the overall benefits being derived from the use of an application like My Health Guide. The approach described here collects case information in a standardised way that makes it straightforward to compare cases and to establish overall statistics for (say) the value of My Health Guide to a particular care provider or service. It may also provide valuable diagnostic information, showing for example that benefits being obtained in some locations or for some clients are not being achieved elsewhere. It also provides a means of summarising the benefits being obtained for commissioners and regulators.

We believe this approach to the assessment of benefits is an important step forward because it provides a systematic route to assessing and measuring benefits when a flexible app is used in a setting where it can be used in many different ways.