# Process mapping and value stream mapping

## Process mapping

Day-to-day general practice work involves many processes to ensure safe, effective delivery of care for patients. These can include a variety of things such as the management of repeat prescriptions, the referral process, managing clinical information, handling test results and sorting the post.

Each task includes lots of steps involving many people, including patients. At every stage there is always the possibility of error. Errors can lead to patient harm, but more often they lead to inefficiencies and wasted time. Process mapping creates a visual representation of all the steps in a particular process (see figure 1 below).

Changing processes, especially those that may be well-established but inefficient, can be complex and difficult. For effective improvement to take place the first step is for everyone involved to fully understand the existing process.

Process mapping can help everyone to:

- understand the stages of a process they are not directly involved in
- quickly identify bottlenecks
- identify steps that appear to be a waste of time
- co-design revisions to a process
- engage in change
- contribute to improvements
- take ownership of the new or revised process - which will help with buy-in

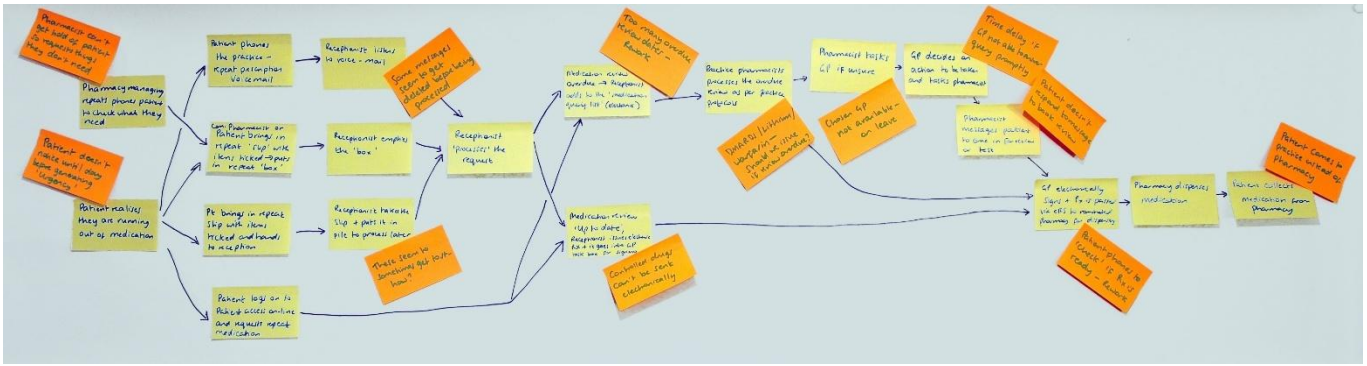

*Figure 1: Example process map*

**How to**

**Preparation stage:**

- **Step 1**: decide which process is to be mapped
- **Step 2**: arrange a convenient date for everyone to meet. Invite anyone involved in the process to participate in the mapping exercise, including patient representatives where relevant
- **Step 3**: choose a facilitator. This person needs to be able to explain the exercise to the rest of the team. They do not need to have a detailed understanding of the process that is to be mapped
- **Step 4**: collect the materials. You will need pens and post-it notes in different colours

**During the Session:**

- **Step 5**: the facilitator explains process mapping to the participants, making it clear that each step needs to be broken down. The more detailed the better because this will identify waste
- **Step 6**: define the start and end point of the process. For example, with repeat prescribing the start point could be the patient requesting a repeat prescription. The end point could be the patient collecting the prescription


- **Step 7**: If one step can be done in several different ways, this is added vertically. For example, in the repeat prescribing process the patient may request a prescription in several different ways as per the diagram below

- **Step 8**: once the map is created, the facilitator asks the group to consider where the problems arise. The participants then note the problems on a different coloured post-it note and attach these at the appropriate point on the map
- **Step 9**: participants are then asked to identify solutions. These are noted on a different coloured post-it note. They are placed over the problems that were identified
- **Step 10**: the process will have identified areas for improvement and generated new ideas to try out. The group should decide if they will try out the changes one at a time, or several together. They will also decide what measurements they will use to identify if there is an improvement over time. Using run charts is one way you might measure and track change to identify which improve the process and should be sustained
- **Step 11**: a further process map is then created by the group to illustrate the agreed new process

**After the session:**

By the end of the session you will have created a visual display of an improvement to an existing process. The exercise often highlights that the more steps there are in a process, the more likely it is that there is inefficiency. It is a good idea to leave the map on display for a few weeks so that any issues that arise during implementation can be easily discussed.

## Value stream mapping

This is a visual map of a process or system. It has similarities to process mapping, but includes more detail such as the length of time between steps in the process and how long each step usually takes.

Its purpose is to identify waste to help streamline processes. The objective is to reduce or eliminate activities that don't appear to be adding any value to the whole process, or to the patient.

**How to**

- Follow Steps 1-7 of the process-mapping guidance
- On the map, record the time it takes to complete each step and the time taken between steps. Once all the steps have been identified, decide which are value-added, value-enabling (activities that do not add direct value, but are necessary to the process) or non-value added
- Once the value stream map has been created, the group will generate ideas about how to eliminate steps in the process that are not value-adding or value-enabling, or reduce the time it takes to complete each step, or interval between steps