Quality Improvement for Individual Patient Care, Using Type 2 Diabetes as an Example

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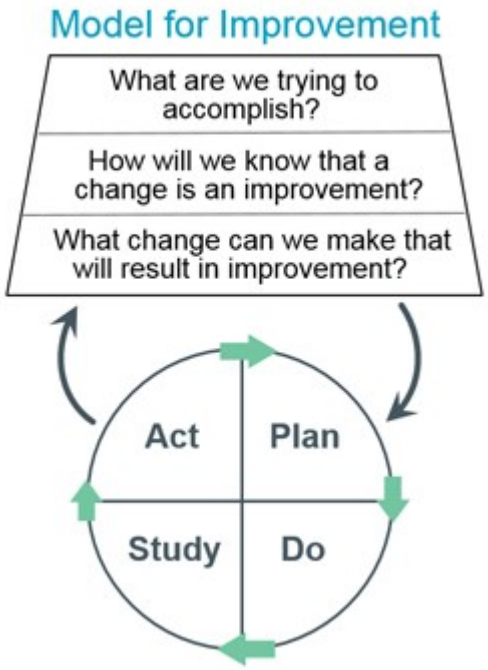
QI methodology was originally developed in the manufacturing industry and is now being applied in healthcare at an organisational level.
The application of QI methodology for individual patient clinical care is currently an under-explored and under-utilised approach. QI can complement the use of generalised population level guidelines to achieve best patient care and outcomes. This is likely to be especially important where there are multiple or diverse management options, such as in the case of type 2 diabetes.

This brief summary will show how the Model for Improvement can be applied and it will low at the use of measures.

Model for Improvement - https://improvement.nhs.uk/documents/2142/plan-do-study-act.pdf)



In clinical care:

1. What is the aim of care/management?
2. What measures will be used? (Primary, Process, Balancing – see below)
3. What changes or management options may help?
4. Plan: What is the plan and next steps for the person? What resources and support are needed? When will the change start?

   Do: Carry out the management plan. Gather data on the agreed measures.

   Study: review the journey so far and the data

   Act: Continue, embed, or change management plan.

3 Types of Measures for Data Collection	**Type 2 Diabetes as an example (choice of measures can change depending on patient circumstances)**
Outcome (has the approach achieved the primary goal?)	Blood glucose (instantaneous and HbA1c)
Process (has the plan/approach been followed?)	Measurement of activity e.g. lifestyle being followed, medications being taken etc.
Balancing (wider measures to show the approach is sufficient and suitable)	Other markers of improved health e.g. weight, lipids, blood pressure, number of medications, wellbeing.

Use of these measures and the data can assist best practice and good clinical care:

- The most appropriate approach will achieve the outcome measure(s), via a process that is most appropriate (e.g. simplest/enjoyable etc), and with positive effect in most/all balancing measures.
- An approach that leads to an improved outcome measure but worsening balancing measures is likely to be an inappropriate approach.
- An approach where the process is not followed either needs more support for the process or the approach needs to be changed.
- An approach where the process is followed but the outcome measure(s) is not improved means the approach is not appropriate.