

Examples of using the Model for Improvement and PDSA cycles in dental services

Example 1

Context: Practice Manager in GDS practice
Problem: The practice manager was concerned at the number of patients who failed to attend their appointments (FTA). The practice is in a socially deprived area where there is limited access to primary dental care, and high levels of dental disease. Over the years the practice had tried to tackle the FTA rate, but none of the changes had been sustained.
<div><p>What are we trying to accomplish?</p></div> <p>To reduce the number of patients who fail to keep their dental appointments without notifying the practice</p>
Engaging staff: The practice manager raised the issue at a team meeting. Some staff felt it was to be expected and they dealt with it by double booking a number of clinics, but one dentist and her nurse agreed to try to tackle the issue.
The patient perspective: The main impact was on the practice. Failed appointments waste time and cost the practice financially. However they also mean that other patients can't be offered appointments as quickly as they want, and double booking can mean stress for staff and extra waiting for patients if everyone attends.

How will we know that a change is an improvement?

The dentist / nurse / practice manager team decided to measure the extent of the problem. They agreed it “feels” like a problem but didn’t know the exact extent of it. They started by agreeing what constitutes a failed appointment and then decided to keep a simple paper record of DNAs including

- the patient’s demographic details
- are they new patients to the practice
- what treatment they were due to have
- time of failed appointment
- any previous failed appointments

The data was collected for 2 weeks and then analysed. 15 patients FTA but there were no apparent trends or common factors. The biggest impact was when patients had long appointments or - in one case - when a family of 4 FTA.

The nurse agreed to phone the patients to ask them whether there was a particular reason they had FTA. The phone calls showed -

5 patients had forgotten they had an appointment, of which 3 were new to the practice

4 had transport problems

2 were not well at the time of their appointment

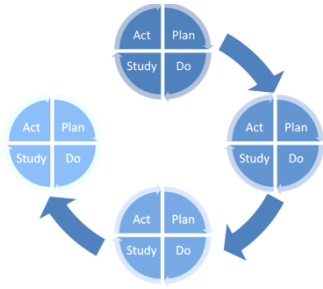
4 could not be contacted because the phone numbers on file were incorrect.

What change can we make that will result in improvement?

The team decided to implement changes and continue to keep data so they could see whether the changes had improved the situation

Changes suggested-

1. phone patients with appointment length 30 minutes or over
2. phone new patients to remind them of their appointment
3. To ask all new or recall patients for their phone number to ensure correct number in the notes,
4. to put a reminder notice by reception to ask patients to tell receptionist if their number had changed



Strategy for change:

For a week the practice manager phoned patients the day before their appointments. In some cases the patients were grateful to be reminded but others were busy when the call was made. The team decided to change their approach

1. To ask patients if they would prefer a reminder text or phone call
2. Continue with patient groups as per 1 and 2 above but add in family groups of 2 people or more
3. To contact patients 48 hours in advance rather than 24 hours

Measurement for improvement: *how did / would you measure the effects of your changes?*

Record kept of patients send reminder texts or phoned

Data kept on patients FTA and whether they had been sent texts or phoned.

Effects of your changes: *describe the impact of your changes on your patients and the staff involved (or what you think the impact should be)? How far did these changes resolve the problem that triggered your work?*

The number of FTAs reduced among the group who were contacted prior to the appointment

Anonymised FTA data displayed in waiting room

All patient advised about the importance of keeping appointments or cancel with as much notice as possible. New patients given a card advising that if they FTA they will not be sent another appointment, and may have to wait some weeks before they can be seen again

Patients who repeatedly FTA or arrived late were asked if they use public transport. If they did appointments are now booked to allow for busy times etc.

Lessons learned: It's not possible to eliminate FTAs, but reminder communications have helped to reduce them and patients generally appreciate them. By contacting 48 hours in advance it's been possible to fill any unfilled appointments if patient cancel when reminded, or use them for unscheduled emergencies

Example 2

Context: Dental team in the practice waiting room
<p>Problem: A patient attended the practice for treatment. She brought her elderly Mother with her who was suddenly taken ill in the waiting room and subsequently died. The dental team did all they could to save her.</p> <p>The incident included dealing with the relative who was a dental patient, and others in the waiting room. An ambulance was called but there were problems phoning 999 and it then took 20 minutes for the ambulance to arrive.</p> <p>A few days later one team member became extremely distressed and very worried that she hadn't done all she could to save the woman. Other team members said that they were also upset, but other felt the team had done really well in applying their CPR training.</p> <p>The team had not had any form of debrief or chance to discuss the incident so they decided to discuss what had happened and whether there was anything they could have done differently</p>
<div><p>What are we trying to accomplish?</p><ol style="list-style-type: none">1. Allow team members to discuss the incident and how it made them feel2. To identify what the team did well3. To identify any improvements to help the team deal more easily with a patient emergency</div>
Engaging staff: The whole practice team was included in the discussion at a team meeting. Not simply team members directly involved in the incident
<p>The patient perspective: The patient was understandably very distressed when her Mother was taken ill, but she was looked after by a dental nurse who made her tea and kept her informed of what was happening.</p> <p>She was never left on her own and was allowed to use the practice phone to call her husband and son. She was told when the ambulance crew arrived and what hospital her mother had been taken to. She was given all her mother's belongings and the dental team made sure she and her husband had transport to travel to the hospital.</p> <p>A few days later she wrote to thank the dental team for all their efforts to save her mother and for taking care of her.</p>

How will we know that a change is an improvement?

To introduce formal debrief process for all serious incidents in the practice.

A chance for team members to discuss the incident and how it made them feel

To identify what the team did well

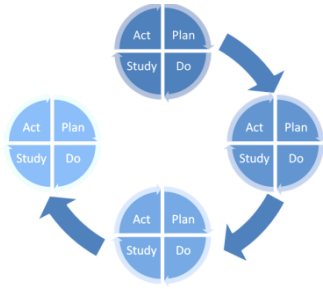
To learn from incidents and identify any improvements to help the team deal more effectively with emergency situations or serious incidents

What change can we make that will result in improvement?

To introduce formal debrief process for all serious incidents in the practice.

To agree the principles for the process.

- Any staff member can raise an issue as a “serious incident” that they want to discuss.
- It doesn’t have to be as serious as the one described, and it doesn’t have to be viewed as serious by everyone.
- All team members must be able to share their concerns and feelings after any serious incident.
- If necessary they should have access to professional support services, such as Occupational Health.
- The team should recognise that team members can react differently to serious incidents
- The team should be open about what went well and what they would do differently
- Any agreed changes must be implemented promptly. They may require further PDSA cycles



Strategy for change: The team held a formal debrief to discuss the incident that led to the change.

They identified what they did well - providing CPR as they had been trained, worked as a team, had all emergency equipment to hand, dealt well with the relative and others in the waiting room)

They also identified an improvement they needed to make. The phone line required dial 9 to get an outside line. Therefore dialling 999 did not get a reply. In her haste it took the receptionist several attempts before she realised that she had to dial 9 - 999. Change made - every phone now has laminated notice in clear bold print - "in an emergency, dial 9999"

All staff agreed that formal debrief must be introduced, and when and how they should be run. They agreed that very serious incidents should be subject to a debrief as soon as possible, while less serious events can be discussed at routine staff meetings.

Measurement for improvement: Debriefs introduced and all staff now contribute and raise issues for discussion.

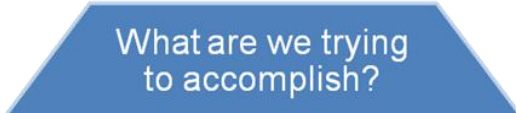
Effects of your changes: Debriefs have been helpful for staff. No further very serious incidents but staff feel better equipped to cope with one if it happens again.

Lessons learnt: Be honest about how an incident makes you feel. Share your concerns. Be prepared to consider what you did well - even if the final outcome wasn't as good as you would have liked.

Message for others: The dental team shared their experiences informally with other practices because they felt they had learnt a lot and they wanted to share the learning.

Another practice shared a similar event in which their receptionist of 20 years could not recall the practice address and postcode in her haste to call the ambulance. They had placed a laminated card by the phone with practice address and postcode.

Example 3

Context: Dentist in GDS practice
<p>Problem: A patient had attended the practice for 5 years. His medical history had been updated regularly and he was recorded as being a heavy smoker. While on holiday, the patient developed dental pain and had to attend another practice. He was diagnosed with a periodontal problem and had to have 2 extractions. He was advised that smoking had undoubtedly contributed to the problem.</p> <p>The patient made a formal complaint against his usual practice; he was particularly concerned he had not been told that smoking is a factor in gum disease.</p> <p>His records were checked. The medical history had been updated appropriately but there was very scant information about the advice given to the patient. The dentist advised his dental insurance company and eventually the complaint was resolved.</p> <p>The dentist concerned decided to improve the way he handled patients who smoke. He recognised he needed updating on the risks of smoking and information on local stop smoking services. He wanted the whole practice to get involved</p>
<div><p>What are we trying to accomplish?</p></div> <p>To reduce the risk of patient complaints by advising smokers of the risks to their health / oral health and keeping record of advice given</p>
<p>Engaging staff: Only one staff member (the dentist) was really involved in the patient complaint. He persuaded all practice staff to get involved in the improvements.</p> <p>He told his colleagues that the formal complaint had been very stressful and reminded them of GDC requirements for all team members to be up to date on the link between smoking and oral cancer. His colleagues were aware of the stress he had been under and agreed that the practice would benefit from changing its approach</p>
<p>The patient perspective: Although the complaint was eventually resolved, the patient went to the local press with his story. However he continued as a patient at the practice.</p> <p>The dental team found this difficult at first, but eventually established a good relationship with the patient by explaining how they learnt from what happened to him.</p>

How will we know that a change is an improvement?

Measures:

All patients who smoke are identified.

Smokers are advised about the risks of smoking and this is recorded clearly in their records.

Smokers who are interesting in quitting are identified and advised of the local stop smoking services.

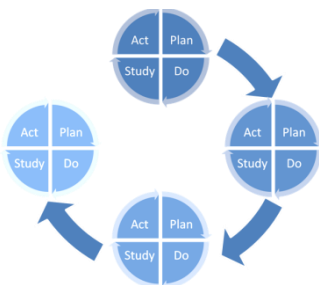
What change can we make that will result in improvement?

Intervention: Medical history forms have been revised to highlight use of all forms of tobacco. All practice staff have been updated on risks of smoking.

The patient's electronic record system has been modified so that history of smoking prompts a red flag alert.

All smokers are provided with leaflet advising them of the risks of smoking, and asked if they are interested in quitting.

Advice on local Stop Smoking services is available in reception.



Strategy for change: Dentists reviewed medical history forms to ensure they include smoking habits and use of smokeless / chewing tobacco

One DCP was asked to find out about local training on oral cancer and smoking cessation -including postgraduate lectures, in house and on line training. She then ensured all staff accessed training over the next 6 months

The Practice Manager ensured that medical history of smoking triggers a red flag alert on electronic record. Every smoker was given a short questionnaire to ascertain interest in quitting.

Dental hygienist sourced patient information on risks of smoking, particularly to oral health -this is given to every patient who smokes

Smokers who are interested in quitting are given information on local Stop Smoking services.

Measurement for improvement: *how did you measure the effects of your changes?*

Implementation of all interventions within 6 months of starting the work

A DCP did another piece of improvement work asking smokers what they thought of the information they are given, and the way the practice identifies and helps smokers who want to quit

Effects of your changes: *describe the impact of your changes on your patients and the staff involved. How far did these changes resolve the problem that triggered your work?*

Patients have welcomed the approach which highlights the problem and provides information they can take home. They like the fact that it doesn't take up time in the dental surgery, but the dentist or DCP discusses smoking with them if they are interested in quitting or if they ask for more information.

There have been no further patient complaints about this issue.

Example 4

Context: Dental Therapist in GDS practice

Problem: A Dental Therapist who worked in 2 practices (practice A and practice B) noticed that far more patients in practice B phoned or attended the practice with problems following dental extractions. She mentioned this to a dentist in practice B and they agreed to collect information on numbers of patients with post-extraction problems. The practice patient profiles were similar and the problem appeared to be the way patients followed post-extraction advice.

Practice A provided a post-extraction leaflet and had a policy of phoning patients within 24 hours of the extraction to check all was well - particularly if the extraction had been difficult. Practice B decided to produce their own patient information leaflet - they asked practice A if they could use theirs to begin with.

The dental nurses read Practice A leaflet and thought it was too complicated and difficult to read for many of their patients. They decided to produce their own leaflet. The therapist had attended a course on patient communication and suggested they use a reading index to assess the reading age of their leaflet. The SMOG index ([hyperlink](#)) was useful and helped them to aim for reading age of about 10.

What are we trying
to accomplish?

To reduce the number of patients with post extraction problems

Engaging staff: 2 dental nurses and the therapist agreed to write a leaflet. The dentist advised on particular aspects to include.

All practice staff agreed it would be useful to have a leaflet

The patient perspective: Patients were experiencing post extraction problems such as bleeding and dry socket, which was unwanted and painful.

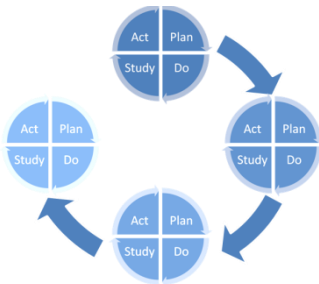
How will we know that a change is an improvement?

Measures:

Reduction in number of patients experiencing post extraction problems

What change can we make that will result in improvement?

Intervention: Develop a simple post extraction information leaflet for patients to advise them of “dos and don’ts” following dental extraction and where to seek help in an emergency if the practice is closed.



Strategy for change: A leaflet was written using straightforward language which was checked using SMOG reading index

The draft leaflet was given to 5 patients in the waiting room. Although they were not having extractions they were asked if the leaflet was easy to read and understand, and if they had suggestions to make it better.

Patients generally liked the leaflet but suggested larger font size and wanted some words simplified. For example, the word ‘analgesics’ was changed to ‘pain-killers’.

The changes were made and the leaflet tested again - this time with 8 patients. It was found to be user friendly so it was given to the next 10 patients who had extractions. They were all phoned within 24 hours of the extraction to ask how they were and if they had any problems. They were also asked if the leaflet had been useful.

Measurement for improvement: *how did you measure the effects of your changes?*

Ask patients if the leaflet was useful.

Count the number of patients contacting the practice with post-extraction problems.

Effects of changes: Reduction in number of patients with post-extraction problems

Lessons learnt: Writing patient information can be difficult. Keep the language simple, use large clear font, stick to one side of A4 paper at most.

Example 5

Context: DCP in Community Dental Service

Problem: A Community Dental Service clinic was being refurbished and the emergency drug box was moved to a different cupboard. A relatively new DCP was asked to ensure the cupboard was labelled.

She mentioned that her medical emergencies training had not included hands on practice with Emergency Drugs. She was concerned that she wouldn't know exactly how to use any drugs in an emergency. Another team member had missed the in-house medical emergencies training, so he hadn't practised using the emergency drugs for nearly two years.

The dental team agreed they would all like to practise using the emergency drugs as supplied to their clinic. The Pharmacy service who provide the emergency drugs agreed they could open the box when it was nearing expiry rather than return it unopened.

The team practised using the contents of the emergency drug box. They discovered that the asthma inhaler did not fit the spacer provided. In an emergency the asthma inhaler could not be used with its spacer. They reported it to pharmacy who supply the drugs and were told that spacers and inhalers 'come from different suppliers' and were not checked before being put into the box.

What are we trying
to accomplish?

To advise all CDS staff of the problem with the spacers

To liaise with pharmacy to ensure all emergency drug boxes are supplied with spacers that are compatible with the inhalers

To ensure that all staff receive hands on training in use of emergency drugs and that training records are kept

To report as a patient safety incident on Health Board incident reporting system

Engaging staff: CDS staff could be rapidly told of the problem. However it was more difficult to ensure the pharmacy service had improved their systems to ensure the matter was addressed.

The patient perspective: No direct impact on patients, but potentially a serious problem if patient experienced a medical emergency

How will we know that a change is an improvement?

Measures

All CDS staff advised of the issue

All CDS emergency drug boxes have compatible asthma inhalers and spacers

All dental team members have received training in using the emergency drugs, which includes hands on practice in using them.

Up to date training records are kept.

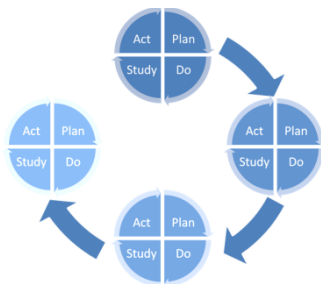
What change can we make that will result in improvement?

Intervention:

Internal communications to alert all CDS staff

All clinics supplied with new emergency drug boxes

All staff have up to date training and records kept.



Strategy for change: Senior dental nurse to use internal communication systems to alert CDS staff

Senior dental nurse to liaise with pharmacy and arrange supply of new emergency drug boxes and collection of existing boxes

Training records to be checked

Measurement for improvement: *how did you measure the effects of your changes?*

All CDS clinics have new emergency drug boxes

All staff have received appropriate training

Effects of your changes:

Staff reassured

Trigger problem resolved

Message for others:

Don't assume all staff have had all relevant training - always ask and keep up to date records.

Check your emergency drug boxes - don't assume everything is OK

