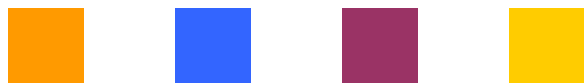


Rigorous diagnostic toolkit

Community health services



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Introduction

This toolkit has been prepared to help community health service teams to complete the rigorous diagnostic phase of the Patient Flow Collaborative – Outpatients (PFC II – Outpatients). The aim of the activities is to identify the key constraints and issues impacting client flow between community health services and outpatients. Once the tools have been completed, the PFC II – Outpatients teams will be able to prioritise which innovations are required to produce significant improvement.

The rigorous diagnostics tools include:

- health service data
- brainstorming
- process mapping
- sampling tools
- client and carer involvement.

How to use this toolkit

It is recommended that activities be completed in sequence. This will enable the data from one activity to inform the next activity. By the completion of the five tools, each team will have rigorous data that will inform your improvement work. Please note, data from the rigorous diagnostics will be presented at Learning Session One and will help to develop the health services action plan.

Activity	Who should be involved?	How long should it take?
<p>1. Health service data is the data that will be collected by each participating health service. There is a defined data set that is to be collected by each health service and submitted to the PFCII – Outpatients team. From this data program measures will be provided to each site showing the improvements that have been made.</p>	<ul style="list-style-type: none"> ▪ health service project team ▪ it support ▪ clinical and clerical staff 	<p>If using the PFC II – Outpatients database, each patient entered should take approximately 30 seconds per patient, on average this will account for 1 hour per week, for four weeks.</p> <p>Depending on existing IT infrastructure, once the report is written to extract the data, the time to run such a report should be minimal.</p>
<p>2. Brainstorming is a commonly-used method of problem-solving involving all stakeholders. Brainstorming can be used to problem solve, generate new ideas, define issues and manage change.</p>	<ul style="list-style-type: none"> ▪ project facilitator and clinical lead ▪ clinical and clerical staff ▪ staff providing services to community health service ▪ individuals who refer patient to or receive referrals from, outpatient clinic(s) 	<p>Depending on the number of individuals you have involved in brainstorming session, most of the time spent on this activity will be in organising individuals to attend. The actual session should only be 1 or 2 hours duration.</p>
<p>3. Process mapping is a method for depicting a process, material or information flow in a diagrammatic form.</p>	<ul style="list-style-type: none"> ▪ project facilitator and clinical lead ▪ clinical and clerical staff ▪ staff providing services to community health service ▪ individuals who refer patient to or receive referrals from, outpatient clinic(s) 	<p>Depending on the number of individuals you have involved in process mapping session, most of the time spent on this activity will be organising individuals to attend. The actual session should only account for half a day.</p>

Activity	Who should be involved?	How long should it take?
<p>4. Sampling data is used to show delays in patient processes. The tally chart is completed in real time and is able to show the number of incidents in each category.</p>	<ul style="list-style-type: none"> ▪ project facilitator and clinical lead ▪ clinical and clerical staff ▪ staff providing services to community health service ▪ individuals who refer patient to or receive referrals from, outpatient clinic(s) 	<p>The number of staff involved in this process will be determined by the scope of the diagnostic work (e.g. the number of areas within the CHS to be investigated). The tally sheet only takes a moment to complete for each client. Time is needed to collate and analyse the tally sheets. Depending on the number of sheets used, this could take 2-3 hours.</p>
<p>5. Involving patients and carers exercise is used to help sites match their expectations with patient and community expectations. A template is provided to assist with interviewing patients and carers.</p>	<ul style="list-style-type: none"> ▪ project facilitator ▪ clinical and clerical staff working in the applicable outpatient clinic(s) 	<p>Each client or carer interview should take no more than 15 minutes. The overall time taken on this activity will depend on how many interviews are needed to obtain a cross section of the patient population.</p>

1. Health service data



Data gathering

A critical area underpinning the work of PFC II – Outpatients is the use of patient flow data. Each participating site will submit regular data in order to measure the improvements in patient flow between outpatient clinics and their community health service.

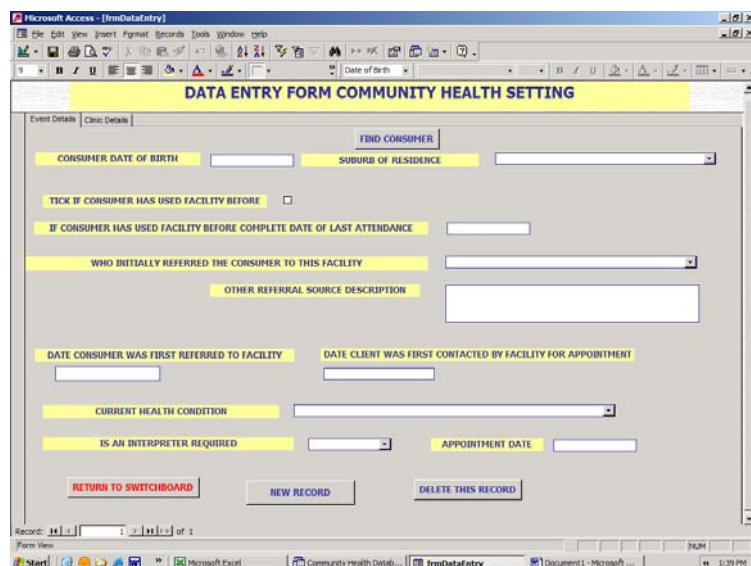
Program Measures

Program measures are the common indicators that all teams will use to support their improvement area. The program measures for the PFC II – Outpatients community health services are:

1. percentage (%) of new clients
2. percentage (%) of review clients
3. percentage (%) of clients referred from outpatients
4. percentage (%) of clients with complete referral documentation
5. time between initial referral and appointment date
6. client time waiting for community health services (time between initial referral and actual appointment).

Data collection

The PFC II – Outpatients team, with support from the Expert Working Group, has designed an electronic data collection tool to assist teams to collect patient flow data on their outpatient services. Sample data is collected during the diagnostic phase as well as each action period.



The screenshot shows a Microsoft Access form titled "DATA ENTRY FORM COMMUNITY HEALTH SETTING". The form is divided into several sections with yellow headers:

- CONSUMER DATE OF BIRTH**: A text input field.
- SUBURB OF RESIDENCE**: A dropdown menu.
- TICK IF CONSUMER HAS USED FACILITY BEFORE**: A checkbox.
- IF CONSUMER HAS USED FACILITY BEFORE COMPLETE DATE OF LAST ATTENDANCE**: A text input field.
- WHO INITIALLY REFERRED THE CONSUMER TO THIS FACILITY**: A dropdown menu.
- OTHER REFERRAL SOURCE DESCRIPTION**: A large text area.
- DATE CONSUMER WAS FIRST REFERRED TO FACILITY**: A date input field.
- DATE CLIENT WAS FIRST CONTACTED BY FACILITY FOR APPOINTMENT**: A date input field.
- CURRENT HEALTH CONDITION**: A dropdown menu.
- IS AN INTERPRETER REQUIRED**: A dropdown menu.
- APPOINTMENT DATE**: A date input field.

At the bottom of the form, there are three buttons: "RETURN TO SWITCHBOARD", "NEW RECORD", and "DELETE THIS RECORD". The form is displayed in a Microsoft Access window titled "frmDataEntry".

Illustration of data collection tool

Baseline data

Teams are required to collect baseline data during the diagnostic phase, covering the minimum data set.

The minimum data set

Client level data

- date of birth
- postcode
- health condition

Consumer level data

- current consumer
- date of last attendance
- date of first referral to service
- referral source
- date of first contact with service
- current appointment date
- interpreter required
- reason for visit
- clinic attended
- health practitioner seen
- outcome from visit

Custom measures

Community health service teams may add additional measures to the minimum data set in order to collect data on local services and practices. The data collection tool can be tailored to include the custom measures.

Data reports

The PFC II – Outpatients team will prepare a report using the submitted data from teams. The reports will include the program measures, and will use the following charts:

Time series chart

The traditional time series chart (otherwise referred to as ‘run’ or ‘line’ charts) enables a series of values to be tracked and displayed over a period of time. The PFC II – Outpatients team will utilise time series charts to detect significant changes in client movements between outpatient clinics and community health services.

Column chart

The standard column chart will be utilised by the PFC II – Outpatients team to display measures in which aggregated or averaged data will be used. For example, presenting the average/number by day of week or time of day.

Statistical process control (SPC) charts

Where appropriate, SPC charts will be used to measure process variation. The charts can help to identify variation and determine whether a process is stable. The SPC chart can help to identify when collaborative work has led to an improved patient flow and whether this has been sustained.

Collecting baseline data

Baseline data is collected at the start of the collaborative and provides the starting point for the improvement effort.

Select a data collection period that will capture data for 30 or more clients. For some community health services this may be a morning session, for others it may be a full-day data collection period. Collect the baseline data on a weekly basis using the data collection tool (which collects the minimum data set).

Example: Community health service Y has chosen Tuesday, as the day they will collect data. Client data for clients attending the community health service from 9.00-16.00 on each Tuesday, for four weeks, is recorded using the data collection tool.

When the data is collected, email the file to the PFC II – Outpatients team and the data will be processed and a report prepared with program measures for that clinic. This data will remain confidential and will not be shared within the Department of Human Services or with other organisations.

Please note: If a site collects the data from its own information system, this data must be submitted to the PFC II – Outpatients team, however in these cases, services are not required to use the data collection tool.

2. Brainstorming



Brainstorming

The objective of brainstorming is to generate ideas, views and perceptions about patient flow between outpatients and community health services. It is a useful exercise for identifying problems in a group setting.

Brainstorming can foster ownership and goodwill for the project and encourage staff to work together to produce innovation and change.

For the rigorous diagnostics, brainstorming is used to:

- identify constraints that staff believe are impacting patient flow between outpatients and community health services
- identify and test the assumptions that underpin current standards and practices in the community health service
- promote staff ownership of the improvement approach, by valuing all suggestions and input.

Method

Choose a method that suits the team, for example you can:

- ask participants to write down their brainstorm ideas, perception and views
- transcribe and display these on whiteboards, butcher's paper or other media.

Activity

Use the following suggestions to undertake the brainstorming activity:

- indicate that the key aim of the brainstorm is to identify the constraints that impact patient flow between outpatients and community health services
- record participants' ideas, perceptions and views
- ask the group to prioritise or score the areas highlighted in the brainstorming session in order of their 'effect' on clients.

Process

1. Appoint a facilitator to record ideas on butcher's paper or use post-it notes to record ideas and to stick the notes on a wall.
2. Briefly review and discuss the system to help participants think about the whole system.
4. Give participants time to think.
5. Ask participants to write down their ideas on post-it notes and place them on flip charts or the wall.
6. Request that no one criticises ideas of constraints or discusses areas highlighted until after the brainstorm is finished.
7. Ask the facilitator to feed back areas highlighted in the brainstorm.
8. Request that the group discuss and prioritise issues in order of their effect on the majority of clients.
9. Once the group agrees on their priority order, give them time to reflect before closing the brainstorm.
10. Remind the group that this is part of the rigorous diagnostic process and that all parts will be completed before priority is given to innovation(s), with the highest impact on patient flow.

Constraints tool

Order of constraint	Description of constraint	Effect on clients (Such as, number of clients effected and degree of impact)
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
20		

3 Process Mapping



Introduction

Process maps are used to understand and review existing processes and flows, providing an in-depth understanding of the steps within the process.

Process mapping is a simple exercise that is a powerful way to engage multi-disciplinary staff in understanding client processes and highlighting opportunities for improvement.

Process mapping can encourage staff participation and shared understanding of the processes, costs, timelines and complexities within a client's journey.

Process mapping exercise

Plan the mapping exercise by considering the following points.

- Staff involvement - you will need a few champions who understand that innovation is needed, one or more facilitators and a representative sample of the staff involved in the client process. Remember, you can process map one-to-one, in small groups and in large groups. Think about the possible outcomes of the mapping exercise as this can help highlight who needs to be involved.
- Once you know whom you will need for the exercise, plan the mapping event well in advance.
- Invitations need to set the scene and provide a brief explanation as to what the exercise is about and what it is setting out to achieve.

Organise your event

By:

- defining scope, objectives and focus
- briefing key attendees beforehand
- identifying representatives to attend (no more than 25 for one mapping exercise is advised)
- setting a time limit and managing this time efficiently to get the best result for time allowed
- arranging a suitable venue for the activity.

On the day:

- Give yourself plenty of time to set up for your mapping exercise.
- Organise yourself with the resources you will need:
 - flip charts/butchers paper/roll of wall paper
 - post-it notes
 - marker pens
 - sticky tape/ blu-tack.
- Check that refreshments and lunch are ready as needed and that a phone is handy for answering pagers or other calls. Also ensure you know where the restrooms are located – someone will ask!
- It is beneficial to request a senior staff member to open the mapping exercise as this can help with setting the tone and showing the support of the organisation.
- Start the exercise by providing an overview of how to process map and request a volunteer to record any information that is raised.
- A brief discussion may be needed to emphasise the scope, process and outcome of the exercise. Once this is completed, facilitate the group to build their process map.
- Start by agreeing on the start and finish points of the process. Write these on post-it notes and place them at either ends of the map paper/wall. Ask staff to record all the steps in the process, write these on post-its and place them along the process as you record them.
- The group can change the order or steps along the process until there is consensus about the client journey.
- Once the map is completed, ask the participants to review what has been created and analyse the client process.

Seek to identify:

- how many steps there are for the client
- how many times the client is handed from one person to another (handover)
- estimate the total time for the process by estimating the time taken for each step and then totalling
- estimate the wait time and the task time in each step
- identify queues
- identify value-added steps to the client, for example sharing information about waiting times
- identify steps that add value to processes/systems, but not to the client, for example, simplified and linked leave notification processes
- identify steps in the process that are problematic for the client
- identify steps in the process that are problematic for the staff
- look for batching - this is where work is accumulated before being processed
- identify constraints on experts, staff or equipment
- identify if this process relies on other processes or systems
- identify if other processes and systems rely on this process.

End the mapping exercise by briefly stating what the next stage will be, how the map will assist redesign of client processes and outlining any subsequent actions that need to take place.

Process mapping: a walk-through

The process walk through tool is a practical exercise that helps map the client's journey. The participants walk through present client processes in the actual location, mapping each step as they progress. The participants can also:

- gather forms, reports or leaflets as they progress through the process
- take photographs to help with the mapping
- highlight risk areas that do not assist with flow of work
- highlight delays due to poor equipment or resources
- record signage, communication methods and staff interaction locations.

Method

1. Identify where the tool will be used, who will need to be involved, when it will be convenient to carry out the exercise and how staff will be briefed before the exercise.
2. Plan the walk through by considering the following:
 - briefly describe the process
 - identify start and finish points
 - identify major client needs
 - discuss how the walk through will progress with minimal interruption to normal working routines
 - discuss how processes will discontinue if there is a clinical emergency
 - identify who will record the process
 - identify who will gather forms and other items.

4. Sampling tool



Sample data tool

The sample data tool is used to show delays to client processes. This tool is simple and easy to implement and can involve all staff from the health service.

Process

1. Select a clinical service area to collect data on client process delays.
2. Nominate a lead staff member for each clinical area to organise the tally charts on client process delays for their specific area (see the example below). The lead staff member should engage the team in the process by explaining why the data is being collected. Explanation of this exercise is a good way to test assumptions about delays in client flow.
3. Ask staff to propose ten events that they consider involve delays to the client's journey in their area.
4. A tally sheet should be prepared, using the staff suggestions for the delay categories.
5. Over one or two weeks, nominate data collection periods where client delays are recorded. The tally chart should identify the delays for each client journey through the clinic.
6. The completed tally chart is part of the data that will be used to determine priority areas for improvement.

Tally Chart Template

Delay	Mon	Tues	Wed	Thurs	Fri	Sat	Sun	TOTAL
Inappropriate referral (service not available at this community health service)								
Insufficient medical / personal information supplied in referral								
Additional tests/ investigations required on review								
Delays in accessing investigations								
Delays in accessing allied health or other service providers								
Required appointments with multiple service providers								
Interpreter availability								
Workforce availability <ul style="list-style-type: none"> ▪ Medical ▪ Nursing ▪ Allied health 								
TOTAL								

5. Involving clients and carers



Introduction

The PFC II – Outpatients team requires sites to collect information from clients and carers on their experience at the interface between outpatients and community health services. This exercise will help sites match what they think is important with client and community expectations.

Ideally this approach is used throughout the collaborative to test new workflows or improvements that aim to benefit the client experience.

Understanding the client journey

The following table has been prepared to collect client feedback on the stages of the client journey between outpatients and community health services. The table can be used during the community health service hours of operation.

Client journey before community health service	Notes
Going to see a doctor in GP clinic or outpatient clinic	
Referral to community health service	
What information did you receive from the GP/outpatient service?	
What information did you receive about the community health service?	
Who made the appointment? How long did you wait for the first appointment?	
Did you need any tests, before attending community health service?	
Client journey in Outpatients	Notes
On the day of your appointment, how long were you waiting to see the person who you had an appointment with?	
After the appointment, where to now? (Discharged? Follow-up appointment? Operation? Referral to other health professional?)	

Acknowledgments

The Patient Flow Collaborative II – Outpatients would like to acknowledge that the content of this toolkit has been developed from work undertaken in the Patient Flow Collaborative, which concluded in June 2005. We would also like to recognise and thank the steering and expert working groups for their input and support in developing this material.