Question 1

• In which module and on what page can you find a theory that explains the stages people go through when experiencing change
  – Module 10 page 3
Question 2

• In which module and on what page do we learn about balancing measures
  —Module 4 page 5
Question 3

• Which module and on what page, explains how to interpret rule 2 of a run chart?
  —Module 6 page 9
Question 4

• Which module will give me a complete overview of quality improvement methodology
  —Module 1
Question 5

• In which module and on what page can I find a sample agenda for an improvement team meeting?
  —Module 7 page 8
Question 6

• In which module and on what page can I get a summary of all tools used to generate change ideas?
  —Module 2 page 16 and 17
Question 7

• Which module explains how to sustain and spread improvement?
  – Module 9
Question 8

• In which module and on what page can I find information on taking pressure off a bottleneck
  — Module 3 page 12
Question 9

• In which module and on what page can I learn about the advantages of testing?
  —Module 5 page 5
Question 10

• Which module provides information on conducting an improvement collaborative?
  – Module 8
Question 11

• Which module and on what page do we learn about the fishbone?
  – Module 2 page 4-6
Question 12

• In which module and on what page do we learn how to eat an elephant?
  – Module 4 page 7
Question 13

- In which module and on what page do we learn about reordering steps in a process?
  - Module 3 page 9
Question 14

• In which module and on what page can obtain Tips for performing PDSA cycles?
  – Module 5 page 12
Question 15

• In which module and on what page can I learn about the difference between a mean and a median?
  – Module 6 page 7
Question 16

• In which module and on what page can I learn about how to generate a change idea from a change concept?
  – Module 2 page 10-12
Question 17

- In which module and on what page can I find the symbols used when producing a process map?
  - Module 3 page 3
Question 18

• In which module and on what page can I learn about how to measure a pineapple?
  – Module 4 page 12
In which module and on what page can I learn about the components of the Plan-Do-Study-Act cycle?

– Module 5 page 6
Question 20

- In which module and on what page can I get direction as to who should be in an improvement team meeting?
  – Module 7 page 4
Question 21

• In which module and on what page can I learn about the preparation phase of a learning collaborative?
  – Module 8 page 11
Question 22

• In which module and on what page can I obtain a sample agenda for learning session 1?
  – Module 8 page 27
In which module and on what page can I learn about who is responsible for sustaining improvements?

– Module 9 page 8
Question 24

- In which module and on what page can I learn the difference between vertical and horizontal spread?
  - Module 9 page 11
Question 25

• In which module and on what page can I learn about a burning platform?
  – Module 10 page 9
WHAT IS QUALITY IMPROVEMENT?
The terms \textit{quality} and \textit{quality improvement} have many different meanings depending on the context. The Department of Health (DOH) uses the following working definition of quality improvement (QI):

- \textit{QI is achieving the best possible results within available resources.}
LdK Modification

• Achieving the best possible results by performing continuous tests of change using available resources
What is QI

• To this end, QI includes ANY activities or processes that are designed to improve the:
  – acceptability,
  – efficiency and
  – effectiveness

• of service delivery and contribute to better health outcomes as an ON GOING and CONTINUOUS process
Traditional Problem Solving Method

Problem

PLAN (protocol, training)

IMPLEMENT

EVIDENCE-BASED SOLUTION

Implementation Failure
WHAT

Guidelines and Standards
The primary purpose of the National Core Standards is to:

- develop a **common definition** of quality of care in all health establishments as a guide for the public, managers and all health care workers
- establish a **national benchmark** against which health establishments can be **assessed**
- provide a common tool to **identify gaps, appraise strengths and guide quality improvement**; and
- provide a **framework** for the **certification** of health establishments
Same Action Same Result

Despite having one of the best HIV guidelines in the world,

Figure 2: HIV prevalence trends among antenatal women, South Africa, 1990 to 2012. (Source: NDoH, 2013)
Same Action Same Result
QI Problem Solving Method

1. Problem
2. Develop Ideas
3. Root cause analysis and systems analysis
4. TEST Ideas
5. Implement Ideas
6. Success & Sustainability
HOW

Quality Improvement
I’m sure glad the hole is not in our end!
“Every system is perfectly designed to achieve the outcomes it gets”

Ascribed to Edwards Deming
UNPACKING THE MODEL FOR IMPROVEMENT
## Clinic Baseline Data

<table>
<thead>
<tr>
<th>%</th>
<th>Nov</th>
<th>Dec</th>
<th>JAN</th>
<th>FEB</th>
<th>MAR</th>
<th>APR</th>
<th>MAY</th>
<th>JUN</th>
<th>JUL</th>
<th>AUG</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ANC HIV Retest Rate</strong></td>
<td>44</td>
<td>39</td>
<td>50</td>
<td>63</td>
<td>54</td>
<td>39</td>
<td>60</td>
<td>70</td>
<td>75</td>
<td>100</td>
</tr>
<tr>
<td><strong>ANC ART initiation rate</strong></td>
<td>100</td>
<td>25</td>
<td>77</td>
<td>133</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td><strong>NVP within 72 hours after birth uptake rate</strong></td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>
## The National targets

<table>
<thead>
<tr>
<th>Indicator</th>
<th>National Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antenatal Client Retested every 12 weeks</td>
<td>80%</td>
</tr>
<tr>
<td>Antenatal Client Initiated on ART (FDC)</td>
<td>100%</td>
</tr>
<tr>
<td>NVP within 72 hours after birth uptake rate</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: SA NDoH PMTCT Action Framework
The Problem

According to the baseline data your clinic is operating at the following median baseline performance on the three indicators:

- ANC HIV Retest 63%
- ANC ART Initiation 100%
- Nevirapine 72 hours after birth 100%

Which topic area should we start our QI project on?
### What are we trying to accomplish?

### What change can we make that will result in improvement?

### How will we know that a change is an improvement?

---

**Model for Improvement**

<table>
<thead>
<tr>
<th>Act</th>
<th>Plan</th>
<th>Study</th>
<th>Do</th>
</tr>
</thead>
</table>

---

*Improvement Guide, Chapter 1, p.24
Appendix C, p. 454*
### Model for Improvement

<table>
<thead>
<tr>
<th>What are we trying to accomplish?</th>
</tr>
</thead>
<tbody>
<tr>
<td>What change can we make that will result in improvement?</td>
</tr>
<tr>
<td>How will we know that a change is an improvement?</td>
</tr>
</tbody>
</table>

**Act**

**Plan**

**Study**

**Do**

**Source:** Associates for Process Improvement

**Chapter 1 of “How To” Guide**

**Chapter 1, 2, 3 of “How To” Guide**

**Chapter 1, 4, 6 of “How To” Guide**

**Chapter 1, 5 of How To” Guide**
What are we trying to accomplish?

What change can we make that will result in improvement?

How will we know that a change is an improvement?

Model for Improvement

Act

Plan

Study

Do

Source: Associates for Process Improvement

Chapter 1
Setting Aims for your problem

Ask the question:
What are we trying to achieve?
Aims help us know where we are heading

Aims:
- should be ambitious
- not possible in our current system
- have a number and a timeline for getting to the target

You don’t need to know how to get there yet!!
Exercise - setting an aim for our facility

At .................................. clinic we aim to improve

..........................................................

from ........................................ to ........................................

by ........................................ 2013
At X clinic we aim to improve the ANC HIV retesting rate from 63% to 80% by February 2014.
What are we trying to accomplish?

What change can we make that will result in improvement?

How will we know that a change is an improvement?

Model for Improvement

- Act
- Plan
- Study
- Do

*Improvement Guide*, Chapter 1, p.24
Appendix C, p. 454
The Change

Every improvement needs a change BUT...
not every change is an improvement
Change Ideas

• How do we increase the likelihood of our change being an improvement?
  – By involving those in the process/system, you vastly increase the chances of the idea being:
    • Appropriate
    • Relevant
    • Implementable
Tools for RCA and Generating Change Ideas

- Brainstorming
- Affinity Diagrams
- Process Map
- Fish bone
- 5 Whys
- Change concepts
- Change ideas from colleagues or literature
- Benchmarking
- Creative thinking
Problem: ANC clients leaving before getting HIV Retest
Re-arranging the steps in the process

1. Waiting Area
2. Observation room
3. Consultation
4. HCT room
5. Leave Clinic

ANC HIV Retest
Change idea: Enrolled Nurse in Observation Area to actively identify ANC clients eligible for retest and send straight to HCT room.
Fishbone Diagram

- **To improve ANC HIV retest rate from 47% to 75%**

- **Resources**

- **Data Recording**

- **Clinical Processes**

- **Patient/Family**

**THE AURUM INSTITUTE**
The root causes emerging from our Fishbone

- **Resources**
  - shortage of maternity case records
  - shortage of staff

- **Data/recording**
  - ANC HIV retest patients not recorded in ANC register
  - data not validated on a regular basis

- **Patient/family**
  - Lack of knowledge about importance of retesting in community
  - migration of patients

- **Clinic system**
  - lack of reminder system
  - clients due for retest not identified
5 Whys
**What are we trying to accomplish?**

**What change can we make that will result in improvement?**

**How will we know that a change is an improvement?**

---

*Improvement Guide*, Chapter 1, p.24
Appendix C, p. 454
Measurement

• **Outcome**
  – Aim

• **Process**
  – Change Idea
  – Did I do what I said I would do?
Measures for this Example

Outcome Measure: ANC HIV retest rate (Run Chart)

Reminder of 1st Change idea: To **actively check** maternity case records each day to identify ANC clients due for retest and refer to the counsellor for retest before consultation.

Process Measures:
- # of ANC clients seen
- # of maternity case records checked.
- # of ANC clients identified as eligible for ANC HIV retest
- # of ANC clients retested
What are we trying to accomplish?

What change can we make that will result in improvement?

How will we know that a change is an improvement?

Model for Improvement

Improvement Guide, Chapter 1, p.24
Appendix C, p. 454
How do I know if my change idea is beneficial or not?
Example 1: PDSA
1A Starting to test the change idea
Overall Aim: To improve ANC HIV Retest Rate from 63% to 80% by 31 July 2014

PDSA Aim: To identify all ANC clients eligible for HIV retest using maternity case records from 07/04/2014 to 11/04/2014.

The Change Idea:
Checking of maternity case records to identify ANC clients due for retest in the waiting area and referring them to the counsellor for retest

The Measures Outcome:
ANC HIV Retest Rate

Process:
# of ANC clients seen
# of maternity case records checked.
# of ANC clients identified as eligible for retest
# of ANC clients retested

The Prediction: Through better identification of those eligible for an ANC retest and making sure they get the retest before their consultation all ANC women will be retested
# Process Measure Collection

<table>
<thead>
<tr>
<th>Date</th>
<th># of ANC clients seen</th>
<th># of maternity case records checked</th>
<th># of ANC clients identified as eligible for retest</th>
<th># of ANC clients retested</th>
</tr>
</thead>
<tbody>
<tr>
<td>07/04/2014</td>
<td>9</td>
<td>9</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>08/04/2014</td>
<td>6</td>
<td>6</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>09/04/2014</td>
<td>6</td>
<td>6</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>10/04/2014</td>
<td>5</td>
<td>5</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>11/04/2014</td>
<td>10</td>
<td>10</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>36</td>
<td>36</td>
<td>6</td>
<td>4</td>
</tr>
</tbody>
</table>
PDSA 1B
Adaptation
Overall Aim: To improve ANC HIV Retest Rate from 63% to 80% by 31 July 2014

PDSA Aim: To identify and record all ANC clients eligible for HIV retest using maternity case records from 14/04/2014 to 18/04/2014

The Change Idea: Checking of maternity case records to identify ANC clients due for retest

Adaptation: To record RE-CODE in ANC column of HCT register to differentiate ANC re-test clients

The Measures Outcome: ANC HIV Retest Rate

Process:
# of ANC clients seen
# of maternity case records checked.
# of ANC clients identified as eligible for retest
# of ANC clients retested
# of RE-CODE in the HCT register

The Prediction: We think our ANC retest rate will increase to 100% due to the idea continuing as well as having an improved recording system in place.
<table>
<thead>
<tr>
<th>Date</th>
<th># of ANC clients seen</th>
<th># of maternity case records checked</th>
<th># of ANC clients identified as eligible for retest</th>
<th># of ANC clients retested</th>
<th># of RE-CODES in the HCT register</th>
</tr>
</thead>
<tbody>
<tr>
<td>14/04/2014</td>
<td>7</td>
<td>7</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>15/04/2014</td>
<td>5</td>
<td>5</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>16/04/2014</td>
<td>6</td>
<td>6</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>17/04/2014</td>
<td>4</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>18/04/2014</td>
<td>5</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>27</strong></td>
<td><strong>27</strong></td>
<td><strong>6</strong></td>
<td><strong>6</strong></td>
<td><strong>6</strong></td>
</tr>
</tbody>
</table>
PDSA 1C
Scale up
**Overall Aim:** To improve ANC HIV Retest Rate from 63% to 80% by 31 July 2014

**PDSA Aim:** To identify and record 100% of ANC re-test clients over a 2 week period

---

**The Change Idea:**
Checking of maternity case records to **identify** ANC clients due for retest in the waiting area and referring them to the counsellor for retest.

**Recording** with RE code in HCT register

---

**Act**
Scale up package of changes for 1 month for widespread implementation

**Plan**
Enrolled nurse working in the observation room to check the maternity case records to identify ANC clients due for retest and refer to the counsellor for retesting: 21/04/2014
Scale: 10 days. review: 05/05/2014
Data will be documented in a diary

---

**Study**
18/18 Women retested
The change idea appears to be working well.
Outcome measure at 60% ANC HIV retest rate.
Enrolled nurse counsellors reporting that change working well

---

**Do**
# of ANC clients seen=69
# of maternity records audited=69
# of identified as eligible=18
# tested=18
# of RE-CODE in the HCT=18
No challenges observed

---

**The Measures Outcome:**
ANC HIV Retest Rate

**Process:**
# of ANC clients seen
# of maternity case records checked.
# of ANC clients identified as eligible for retest
# of ANC clients retested
# of RE-CODES in the HCT register

---

**The Prediction:** The Change idea will continue to improve ANC HIV resting over time through better identification, reordering of the process and better recording.
# Process Measure Collection

<table>
<thead>
<tr>
<th></th>
<th># of ANC clients seen</th>
<th># of maternity case records checked</th>
<th># of ANC clients identified as eligible for retest</th>
<th># of ANC clients retested</th>
<th># of RE-CODES in the HCT register</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>34</td>
<td>34</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Week 2</td>
<td>35</td>
<td>35</td>
<td>9</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>69</td>
<td>69</td>
<td>18</td>
<td>18</td>
<td>18</td>
</tr>
</tbody>
</table>
Run chart showing improvement of outcome measure: ANC HIV Retest Rate

ANC HIV Retest Rate

- PDSA 1a
- PDSA 1b
- PDSA 1c

Target and Median lines indicating improvement over time.
Example 2:
PDSA 1A
Overall Aim: To improve TB screening for all patients > 5yrs from 3% to 100% by Sep 2014

PDSA Aim: To improve TB screening of all patients coming to the clinic from 3% to 100% in June 2014

The Change Idea:

TB screening of all patients over 5 years to be done at the reception, HCT room and consulting rooms using the TB screening tools

Act

Plan
who: Care giver, nurses and counsellors
Where: Consulting rooms, HCT room and reception
When: 11.06.2013
scale: 5 days
Review: 18.06.2013
Data collection: TB screening tool copies

Adapt: TB screening to be done at the reception and the consulting rooms

Study

40% screening done
Change idea not achieving the best results. Patients lost at all screening points

Do

PDSA Aim: To improve TB screening of all patients coming to the clinic from 3% to 100% in June 2014

who: Care giver, nurses and counsellors
Where: Consulting rooms, HCT room and reception
When: 11.06.2013
scale: 5 days
Review: 18.06.2013
Data collection: TB screening tool copies

Outcome:

TB Screening rate

Process:

# PHC headcount over 5yrs
# Patients > 5yrs screened for TB (TB screening tool copies)

The Measures

Prediction: we think that all patients coming to the clinic will be screened for TB since we will now start screening all of them and not just the HIV positive patients
**Overall Aim:** To improve TB screening for all patients > 5yrs from 3% to 100% by Sep 2013

**PDSA Aim:** To improve TB screening of all patients coming to the clinic from 3% to 100% in July 2013

**The Change Idea:**
TB screening of all patients over 5 years to be done at the reception and consulting rooms using the TB screening tools.

**Act**
- **Adapt:** TB screening to be done only at the reception area.

**Plan**
- **Who:** Care giver and nurses
- **Where:** Consulting rooms and reception
- **When:** 19.06.2013
- **Scale:** 5 days
- **Review:** 27.06.2013
- **Data collection:** TB screening tool copies

**Study**
55% screening done, change idea not achieving the best results. Data for 1 screening point not recorded due to a lost source document. A high number of patients still missed.

**Do**
- # PHC headcount over 5yrs = 93
- # Patients > 5yrs screened for TB = 51
- Screening book for 1 consulting room not found

**The Prediction:** we think that all patients coming to the clinic will be screened for TB since we will now start screening all of them and not just the HIV positive patients.
Overall Aim: To improve TB screening for all patients > 5yrs from 3% to 100% by Sep 2013

PDSA Aim: To improve TB screening of all patients coming to the clinic from 3% to 100% in July 2013

The Change Idea:
TB screening of all patients over 5 years to be done at the reception using the TB screening tools

The Prediction: we think that all patients coming to the clinic will be screened for TB since we will now start screening all of them and not just the HIV positive patients
PDSA
1D
**Overall Aim:** To improve TB screening for all patients > 5yrs from 3% to 100% by Sep 2013

**PDSA Aim:** To improve TB screening of all patients coming to the clinic from 3% to 100% in July 2013

---

**The Change Idea:**
TB screening of all patients over 5 years to be done at the reception using the TB screening tools

**The Measures**

**Outcome:**
- TB Screening rate

**Process:**
- # PHC headcount over 5yrs
- # Patients > 5yrs screened for TB (TB screening tool copies)

---

**Act**
- **Who:** Care giver
- **Where:** Reception
- **When:** 09.07.2013
- **Scale:** 5 days
- **Review:** 24.07.2013
- **Data collection:** TB screening tool copies

**Study**
- 100% screening done Change idea achieving the best results. No patients were missed

**Do**
- # PHC headcount over 5yrs = 178
- # Patients > 5yrs screened for TB = 178
- No challenges experienced

---

**The Prediction:** we think that all patients coming to the clinic will be screened for TB since we will now start screening all of them and not just the HIV positive patients
**Ramp Aim:**

To improve TB screening for all patients > 5yrs from 3% to 100% by Sep 2013

---

**PDSA 1A:** TB screening of all patients over 5 years to be done at the reception, HCT room and consulting rooms using the TB screening tools. 32 out of 80 patients seen were screened for TB. This showed that patients were being missed at all 3 points of screening. Change idea was adapted to provide TB screening at reception and consulting rooms.

**PDSA 1B:** TB screening of all patients over 5 years to be done at the reception and consulting rooms using the TB screening tools. 51 out of 93 patients seen were screened for TB. This showed that patients were still being missed at points of screening. Data was also not recorded for 1 consulting room. Change idea was adapted to provide TB screening at reception only.

**PDSA 1C:** TB screening of all patients to be done at the reception. 86 out of 86 patients seen were screened for TB. Change idea scaled up to 2 weeks.

**PDSA 1D:** TB screening of all patients to be done at the reception. 178 out of 178 patients seen were screened for TB. Change idea adopted and implemented.
Run chart showing improvement of outcome measure: TB Screening Rate

Clinic X TB screening rate

- Change started
- Change adapted

TB screening rate
Baseline Median
Target
i can

change the world.

Could it really be that simple? We think so.
HOW DO I DO IT?

1. PLEDGE
2. SHARE
3. DO and
4. INSPIRE!
PLEDGE

• Your pledge is your personal commitment to making things better in your own environment!
• Be specific
• Make sure you can share the impact of your pledge i.e. data, stories
• It doesn’t matter, simply Make your pledge and tell the world: i can change the world
SHARE

• Make your commitment known
• Share the excitement and increase your commitment
• Share the results
ican
change the world.

Could it really be that simple? We think so.

Out of this philosophy comes the concept of 'ican – ngingakhona': a grassroots movement where we ask you to join us in committing to making small changes in the way we approach our work in healthcare – not just for one day but every day.

It’s simple. Just think of ONE thing you can do differently in your daily practice, and then make it official by writing it down on a pledge leaf. Take a ‘selfie’, post it on Facebook and put the pledge leaf on the pledge tree in your facility or department.

Your pledge is your personal commitment to making things better!

Whether you pledge to smile more, no matter how long and tiresome your day has been, or pledge to complete all records accurately and promptly, all that matters is that you PLEDGE, SHARE, DO and INSPIRE!

Make your pledge and tell the world:

- Make your pledge on facebook
- Tweet your pledge #icanpledge or simply scan the QR code

icans

a quality improvement initiative
i can make a pledge and change the world...

This pledge tree is nurtured by the staff at:

[Name of organization]

[Signature]

[Date]

[iCan]

[Logo]

[iCan]

[Logo]

[iCan]

[Logo]
DO

• “What you do speaks so loudly that I cannot hear what you are saying” – Ralf Waldo Emmerson

• By doing something about your commitment within 7 days, you are more likely to do something about it
INSPIRE

• NHS had 900,000 pledges this year
• This campaign is a result of my pledge
• “when we focus our energy towards constructing a passionate meaningful life, we are tossing a pebble into the world, creating a beautiful ripple effect of inspiration. When one person follows a dream, tries something few or takes a daring leap, everyone near by feels that energy and before too long they are making their own daring leaps and inspiring yet another circle.” – Christine Mason Miller