HOW TO GUIDE FOR QUALITY IMPROVEMENT

Lauren de Kock

SOUTH AFRICANS AND AMERICANS IN PARTNERSHIP TO FIGHT HIV/AIDS
PEPFAR
CDC
THE AURUM INSTITUTE

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

THE AURUM INSTITUTE

Question 2

- In which module and on what page do we learn about balancing measures
  - Module 4 page 5

THE AURUM INSTITUTE

Question 3

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

THE AURUM INSTITUTE

Question 4

- Which module will give me a complete overview of quality improvement methodology
  - Module 1

THE AURUM INSTITUTE

Question 5

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

THE AURUM INSTITUTE

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

THE AURUM INSTITUTE

Question 7

- Which module explains how to sustain and spread improvement?
  - Module 9

THE AURUM INSTITUTE

Question 8

- In which module and on what page can I find information on taking pressure off a bottleneck
  - Module 3 page 12

THE AURUM INSTITUTE

Question 9

- In which module and on what page can I learn about the advantages of testing?
  - Module 5 page 5

THE AURUM INSTITUTE

Question 10

- Which module provides information on conducting an improvement collaborative?
  - Module 8

THE AURUM INSTITUTE

Question 11

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

THE AURUM INSTITUTE

Question 12

- In which module and on what page do we learn how to eat an elephant?
  - Module 4 page 7

THE AURUM INSTITUTE

Question 13

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

THE AURUM INSTITUTE

Question 14

- In which module and on what page can obtain Tips for performing PDSA cycles?
  - Module 5 page 12

THE AURUM INSTITUTE

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

THE AURUM INSTITUTE

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

THE AURUM INSTITUTE

Question 17

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

THE AURUM INSTITUTE

Question 18

- In which module and on what page can I learn about how to measure a pineapple?
  - Module 4 page 12

THE AURUM INSTITUTE

Question 19

- In which module and on what page can I learn about the components of the Plan-Do-Study-Act cycle?
  - Module 5 page 6

THE AURUM INSTITUTE

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

THE AURUM INSTITUTE

Question 21

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

THE AURUM INSTITUTE

Question 22

- In which module and on what page can I obtain a sample agenda for learning session 1?
  - Module 8 page 27

THE AURUM INSTITUTE

Question 23

- In which module and on what page can I learn about who is responsible for sustaining improvements?
  - Module 9 page 8

THE AURUM INSTITUTE

Question 24

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

THE AURUM INSTITUTE

Question 25

- In which module and on what page can I learn about a burning platform?
  - Module 10 page 9

THE AURUM INSTITUTE

INTRODUCTION TO QUALITY IMPROVEMENT

Lauren de Kock

Neo Masike

Craig Parker

WHAT IS QUALITY IMPROVEMENT?

THE AURUM INSTITUTE

What is QI

The terms *quality* and *quality improvement* have many different meanings depending on the context. The Department of Health (DOH) uses the following working definition of quality improvement (QI):

- *QI is achieving the best possible results within available resources.*

LdK Modification

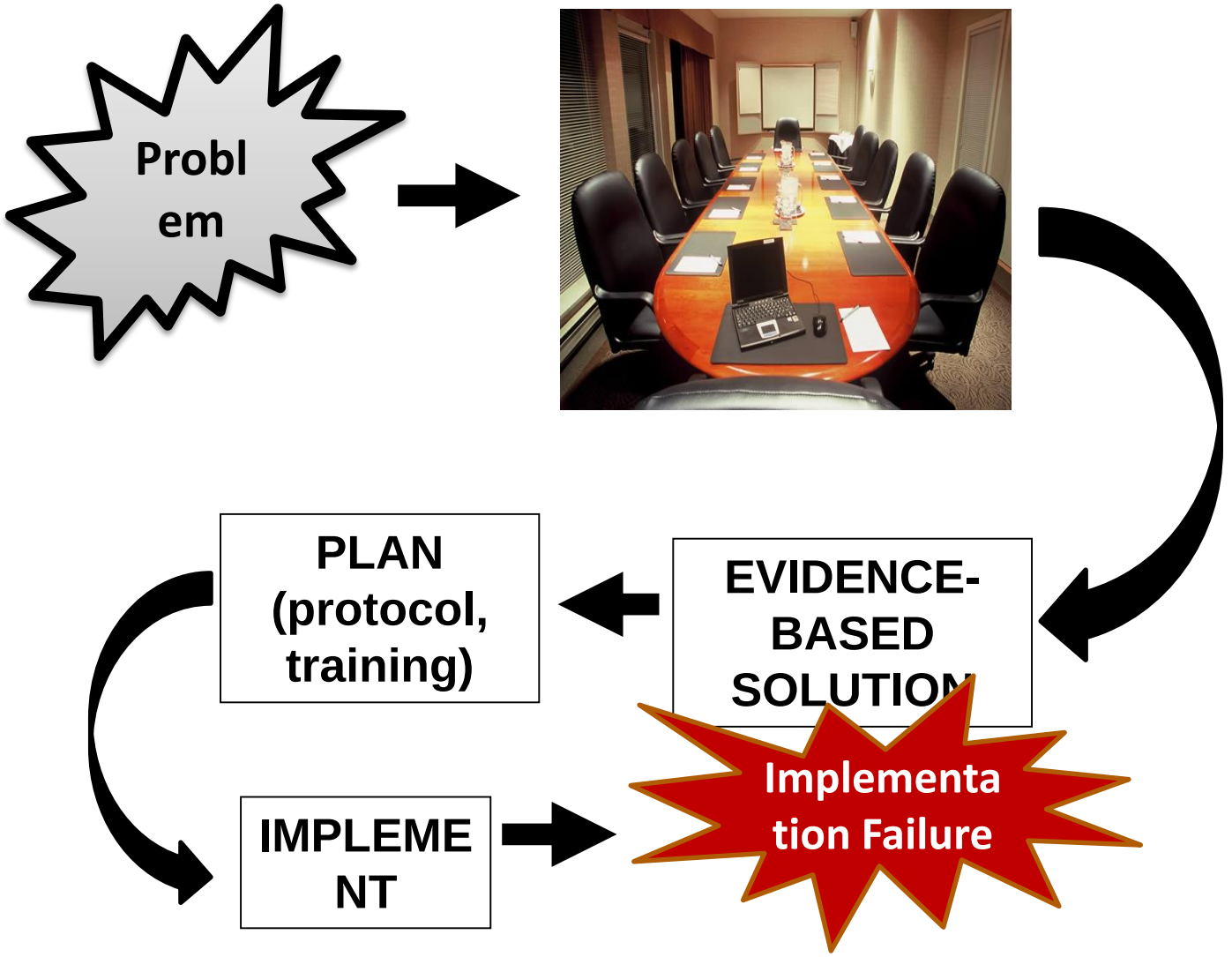
- Achieving the best possible results by **performing continuous tests of change** using available resources

THE AURUM INSTITUTE

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



WHAT

Guidelines and Standards

THE AURUM INSTITUTE

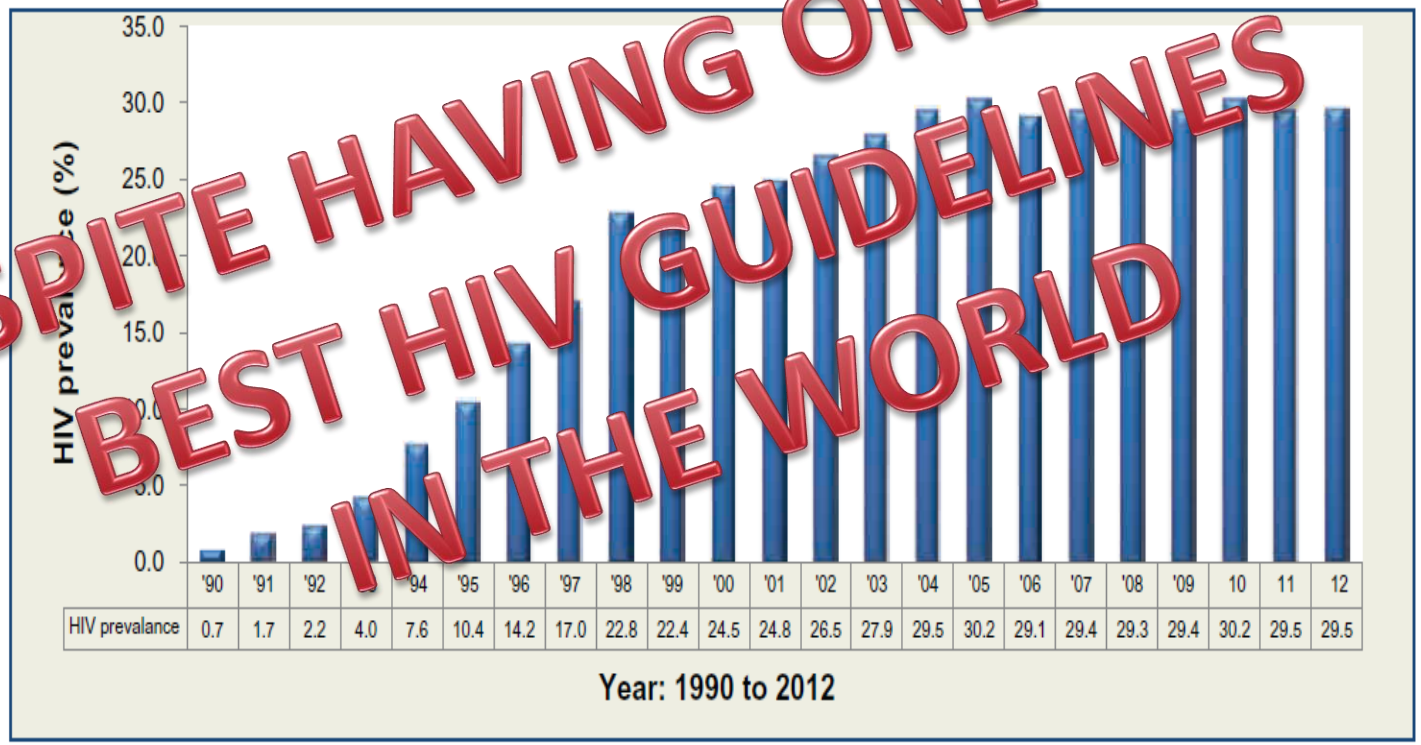
Purpose of Core Standards

- 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

THE AURUM INSTITUTE

Same Action Same Result

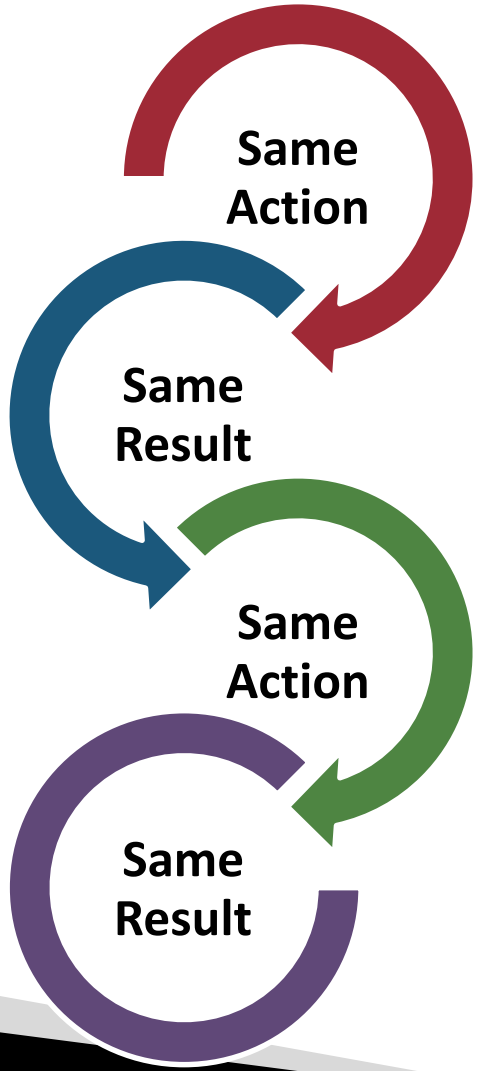
DESPITE HAVING ONE OF THE BEST HIV GUIDELINES IN THE WORLD



	'90	'91	'92	'93	'94	'95	'96	'97	'98	'99	'00	'01	'02	'03	'04	'05	'06	'07	'08	'09	10	11	12
HIV prevalance	0.7	1.7	2.2	4.0	7.6	10.4	14.2	17.0	22.8	22.4	24.5	24.8	26.5	27.9	29.5	30.2	29.1	29.4	29.3	29.4	30.2	29.5	29.5

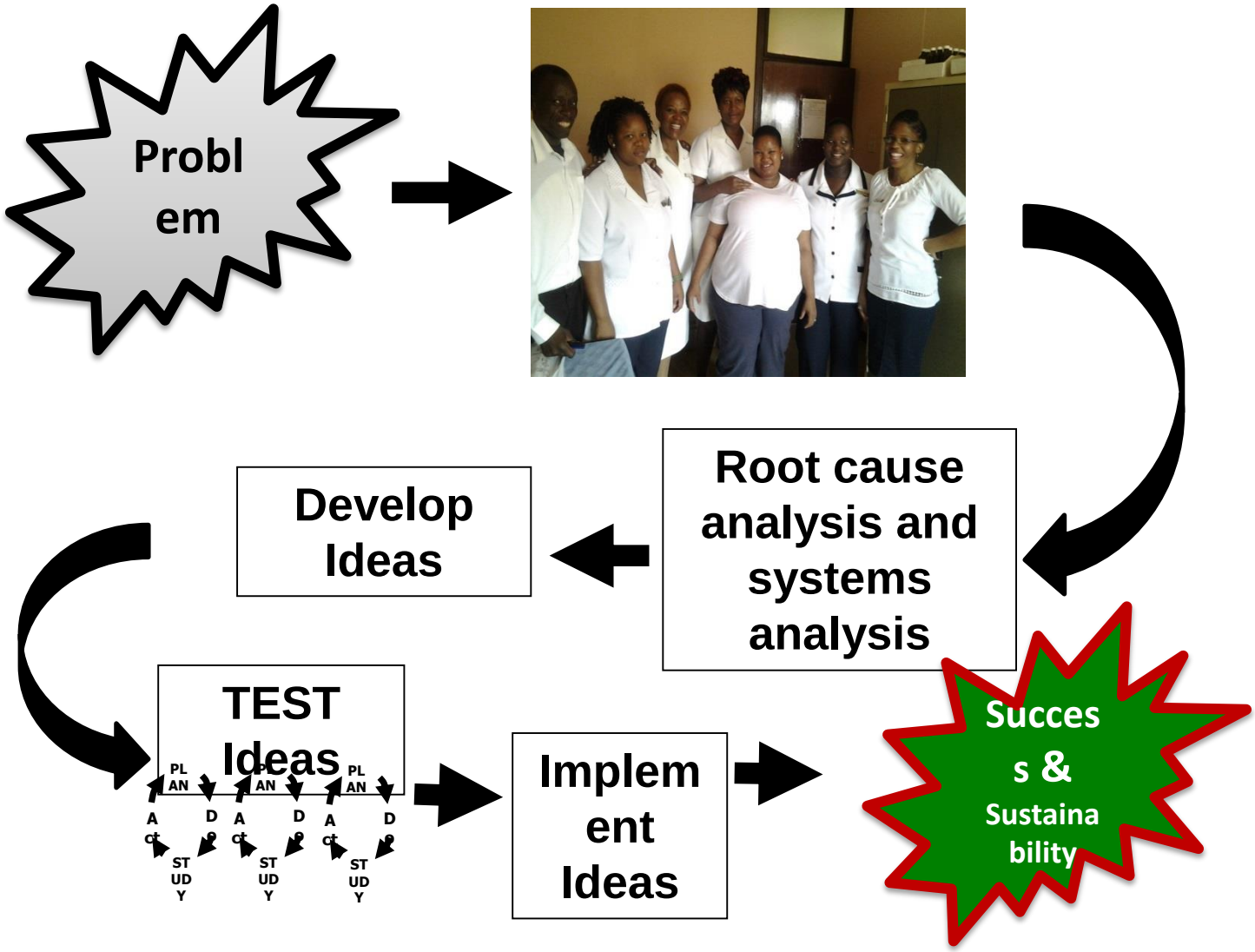
Figure 2: HIV prevalence trends among antenatal women, South Africa, 1990 to 2012. (*Source*: NDoH, 2013)

Same Action Same Result



THE AURUM INSTITUTE

QI Problem Solving Method

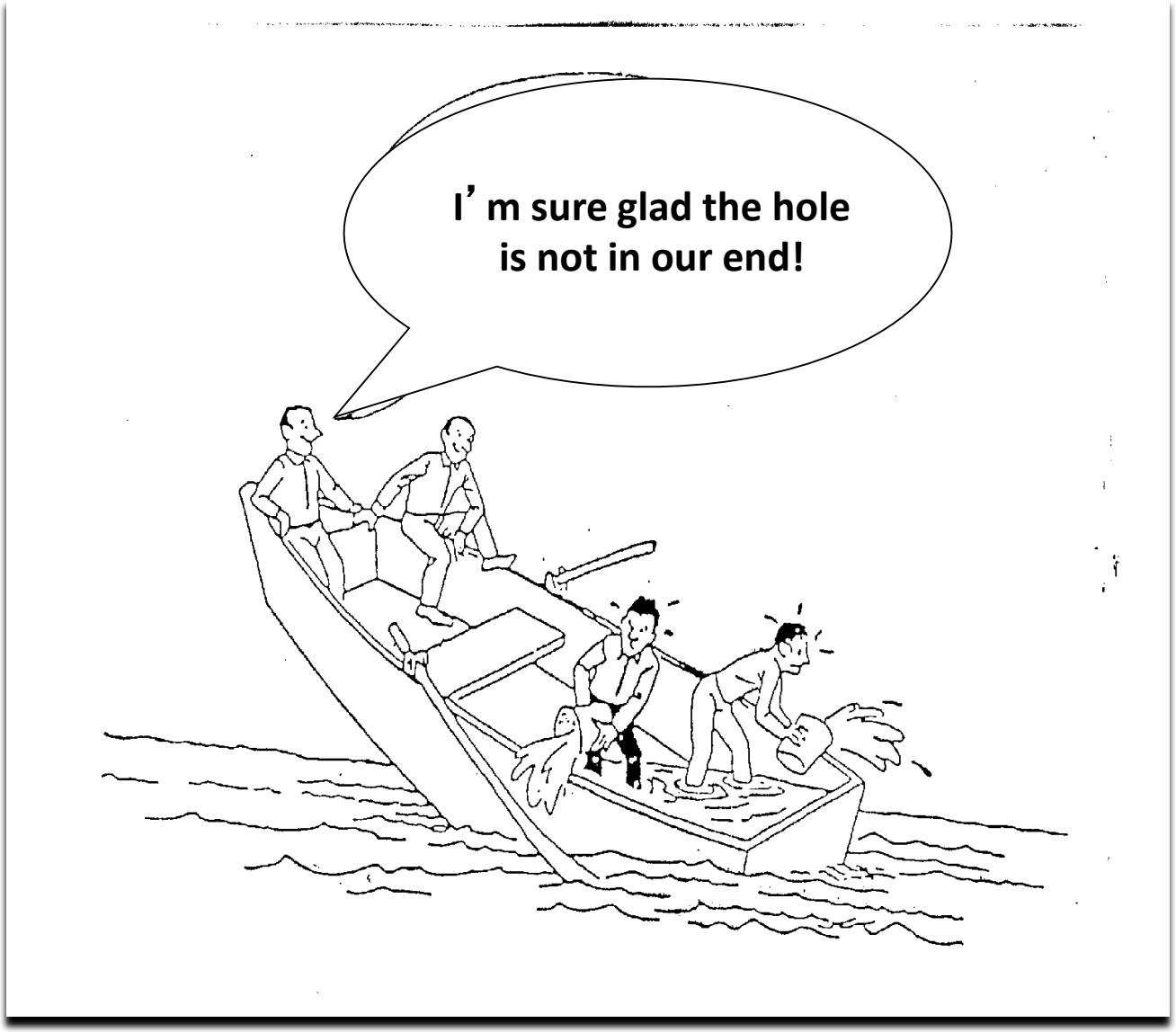


HOW

Quality Improvement

THE AURUM INSTITUTE

Systems



Understanding systems

"Every system is perfectly designed to achieve the outcomes it gets"

Ascribed to Edwards Deming

THE AURUM INSTITUTE

UNPACKING THE MODEL FOR IMPROVEMENT

Clinic Baseline Data

%	Nov	Dec	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG
ANC HIV Retest Rate	44	39	50	63	54	39	60	70	75	100
ANC ART initiation rate	100	25	77	133	100	100	100	100	100	100
NVP within 72 hours after birth uptake rate	100		100		100		100	100		

THE AURUM INSTITUTE

The National targets

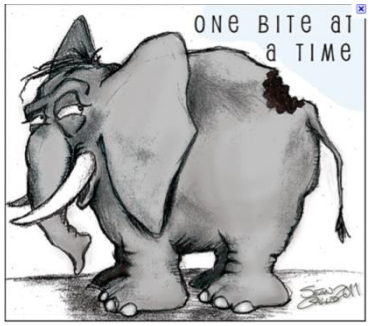
Indicator	National Target
Antenatal Client Retested every 12 weeks	80%
Antenatal Client Initiated on ART (FDC)	100%
NVP within 72 hours after birth uptake rate	100%

Source: SA NDoH PMTCT Action Framework

THE AURUM INSTITUTE

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?

THE AURUM INSTITUTE

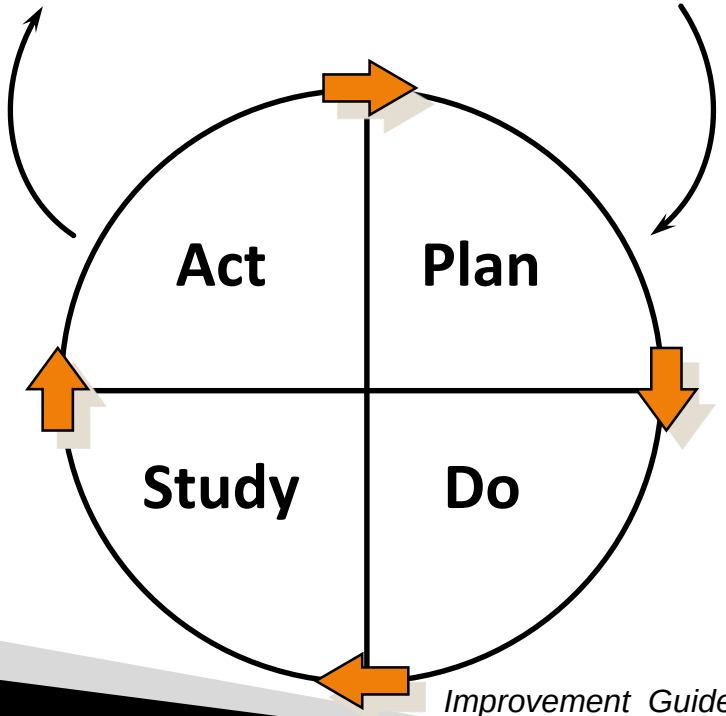
Model for Improvement

Strategy

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?



Action Plan

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

THE AURUM INSTITUTE

Model for Improvement

What are we trying to accomplish?

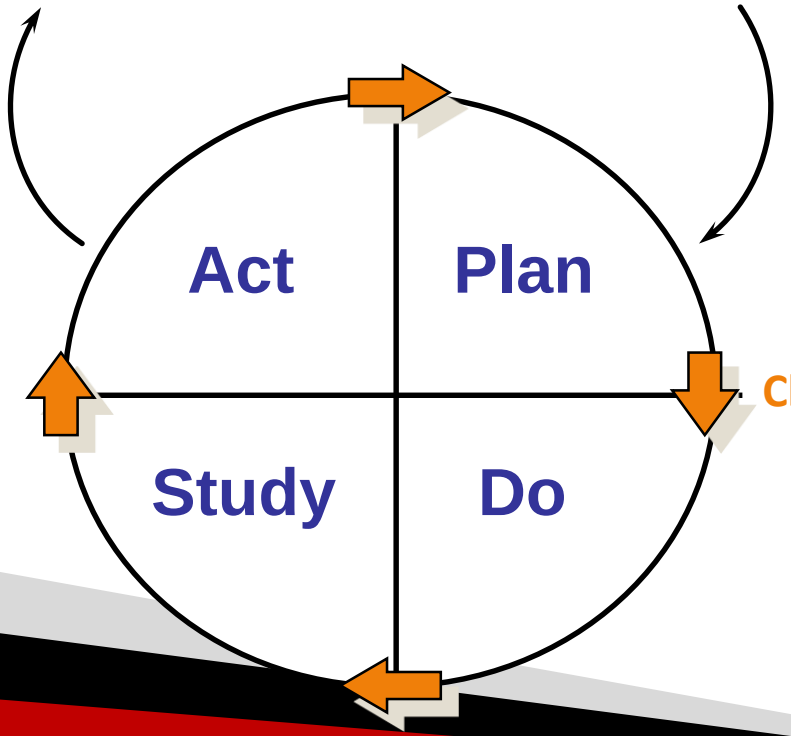
Chapter 1 of "How To" Guide

What change can we make that will result in improvement?

Chapter 1, 2 ,3 of "How To" Guide

How will we know that a change is an improvement?

Chapter 1, 4, 6 of "How To" Guide



Chapter 1, 5 of How To" Guide

Source: Associates for Process Improvement

THE AURUM INSTITUTE

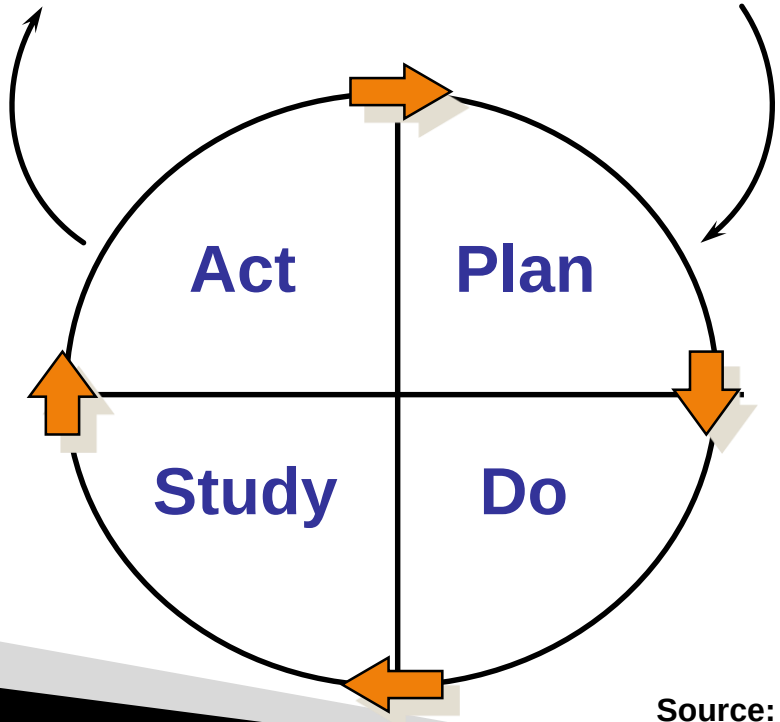
Model for Improvement

Chapter 1

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?



Source: Associates for Process Improvement

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!!

THE AURUM INSTITUTE

Exercise - setting an aim for our facility

At …… clinic we aim to improve

……

from …… to ……

by …… 2013

Example

At **X** clinic we aim to improve

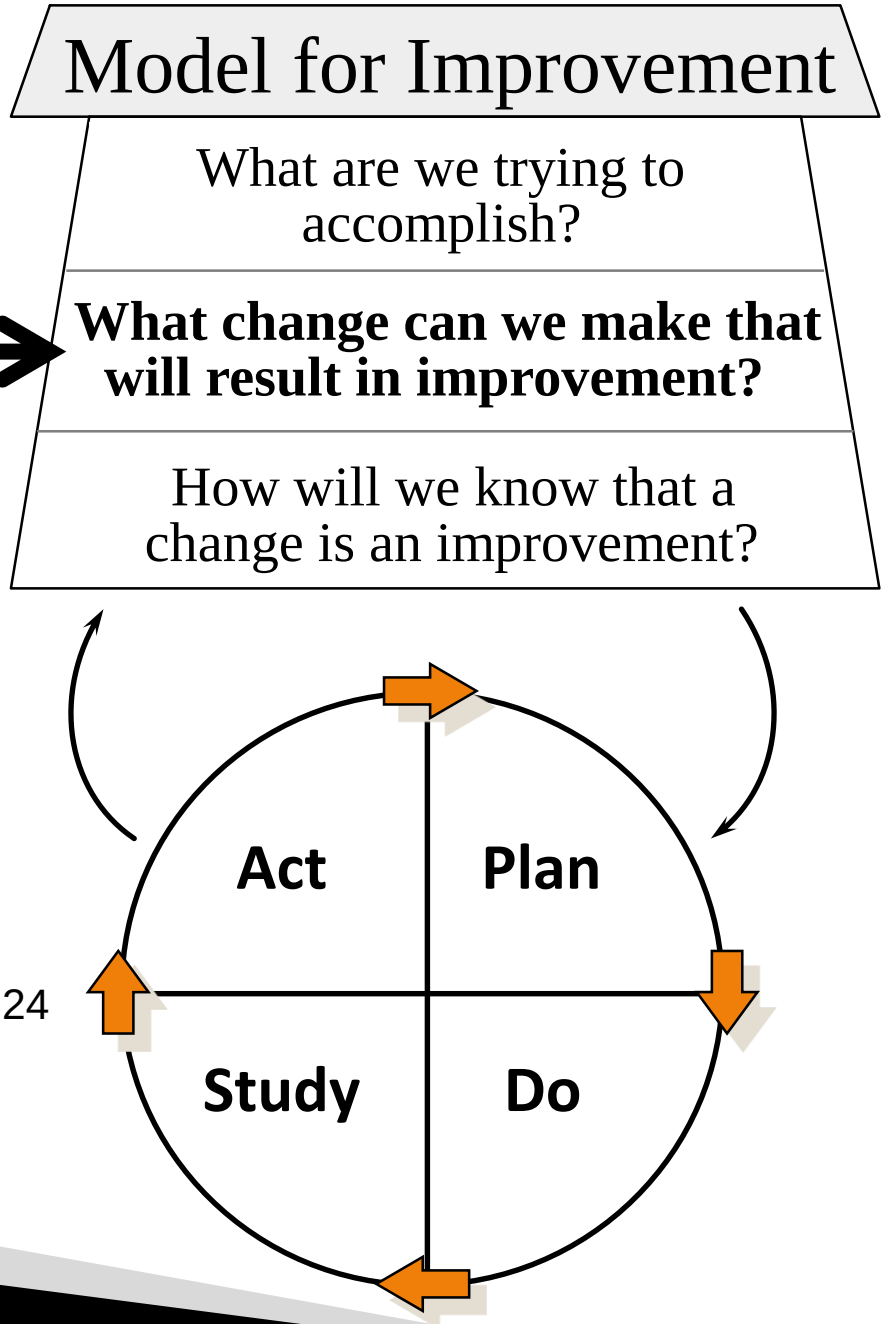
……**ANC HIV retesting rate**……

from ……**63%**…… to ……**80%**……

by ……**February**…… **2014**

THE AURUM INSTITUTE

The Change



Improvement Guide, Chapter 1, p.24

Appendix C, p. 454

THE AURUM INSTITUTE

The Change

Every improvement needs a change **BUT…**

not every change is an improvement

THE AURUM INSTITUTE

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

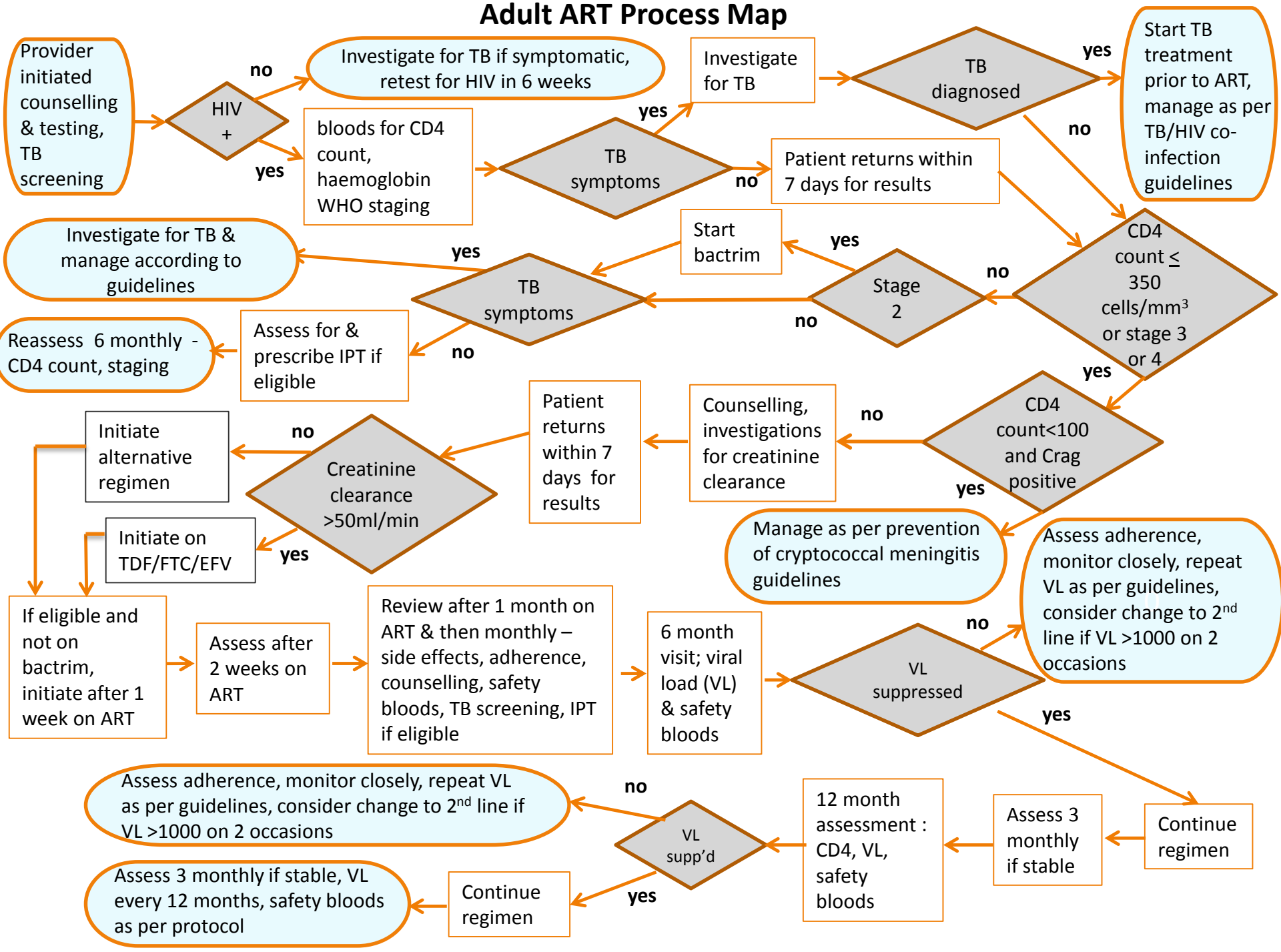
THE AURUM INSTITUTE

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

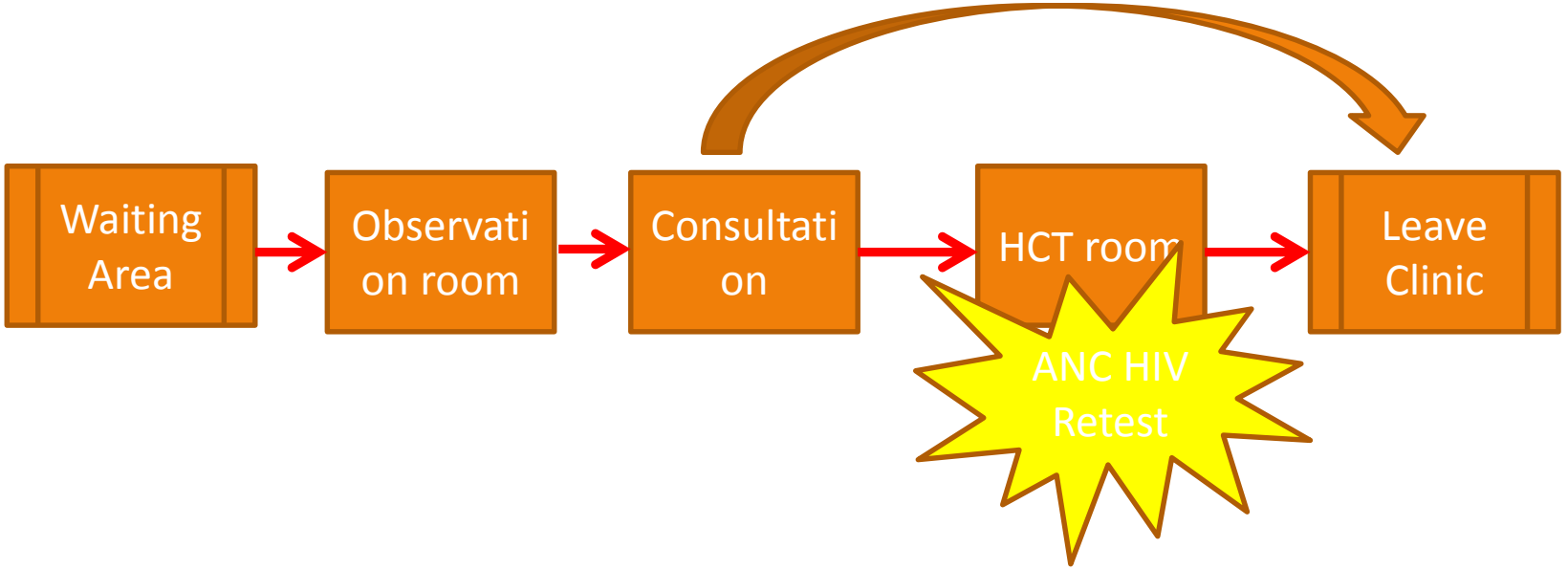
THE AURUM INSTITUTE

Adult ART Process Map



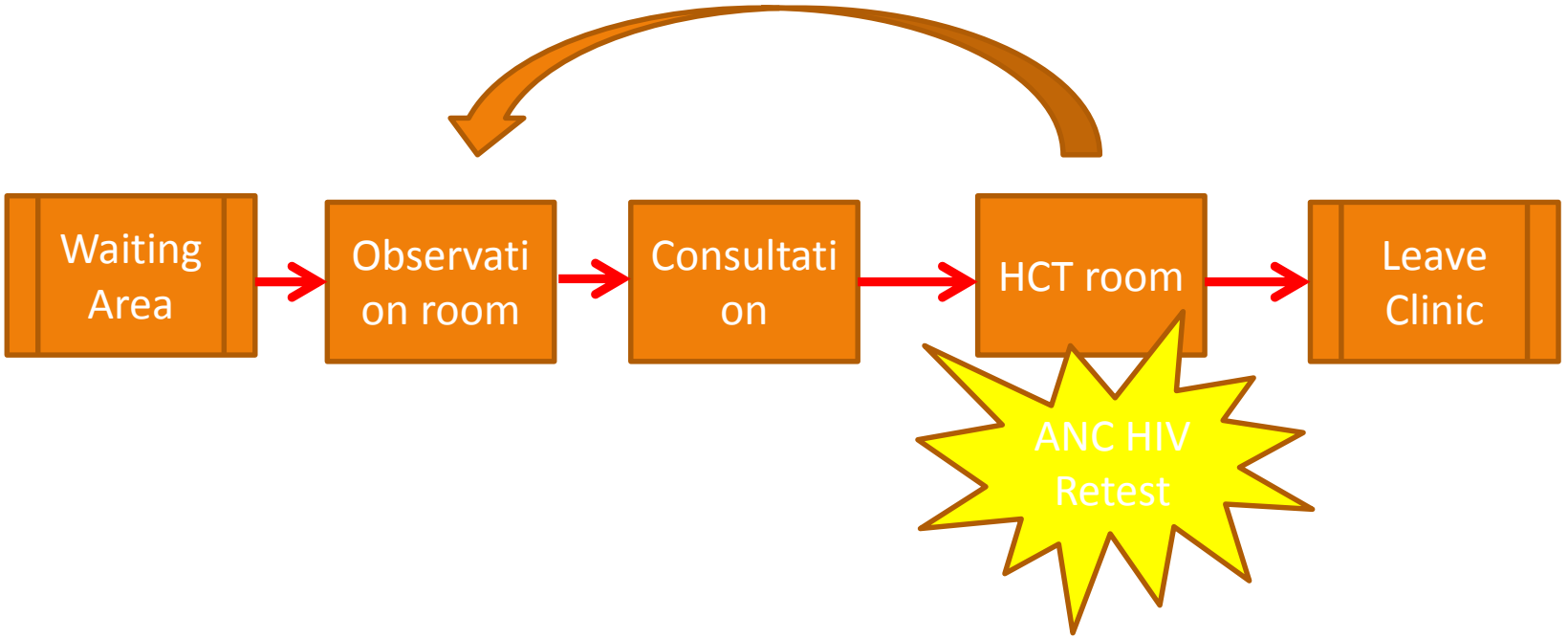
Current Process

Problem: ANC clients leaving before getting HIV Retest



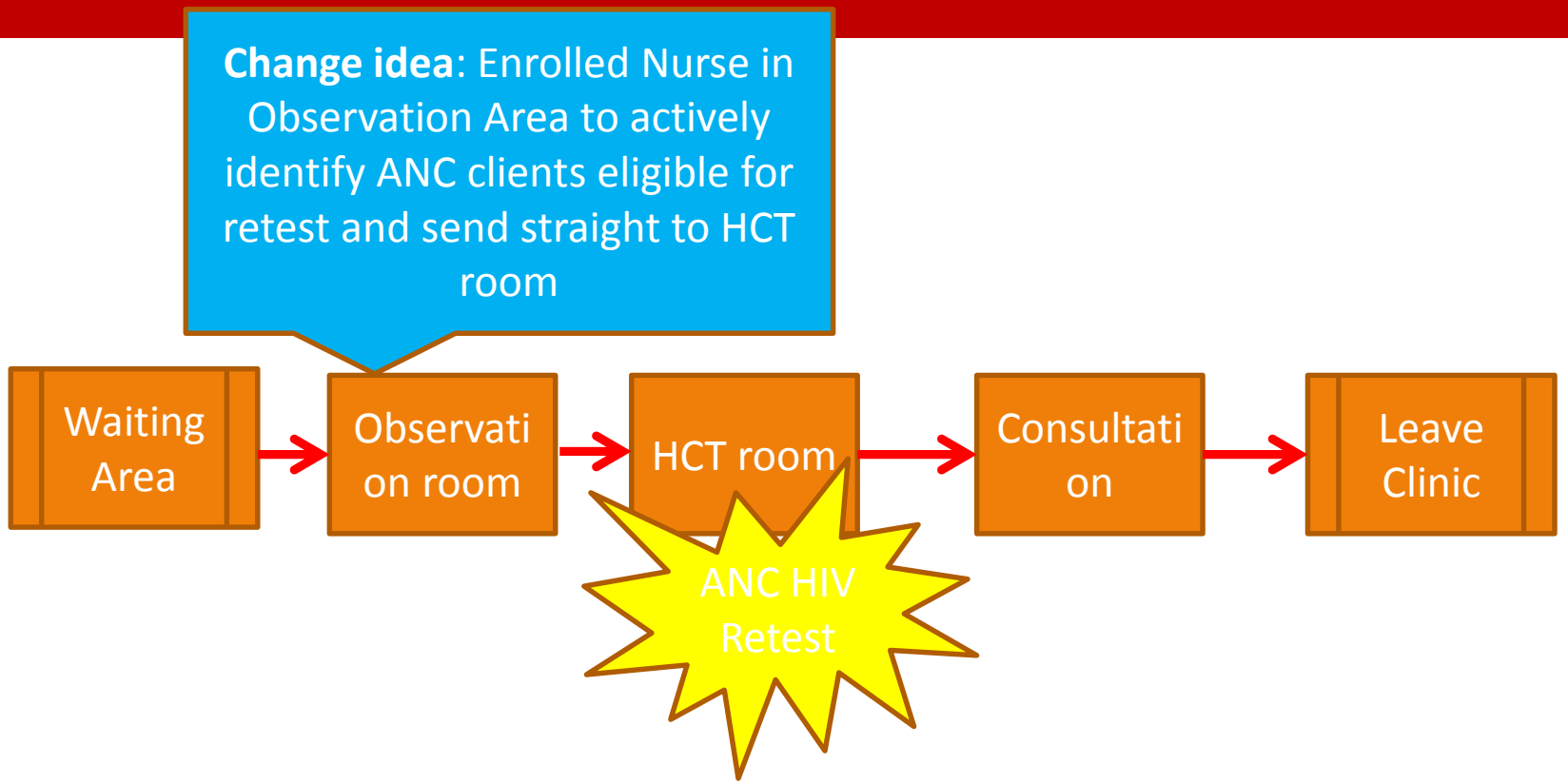
THE AURUM INSTITUTE

Re-arranging the steps in the process



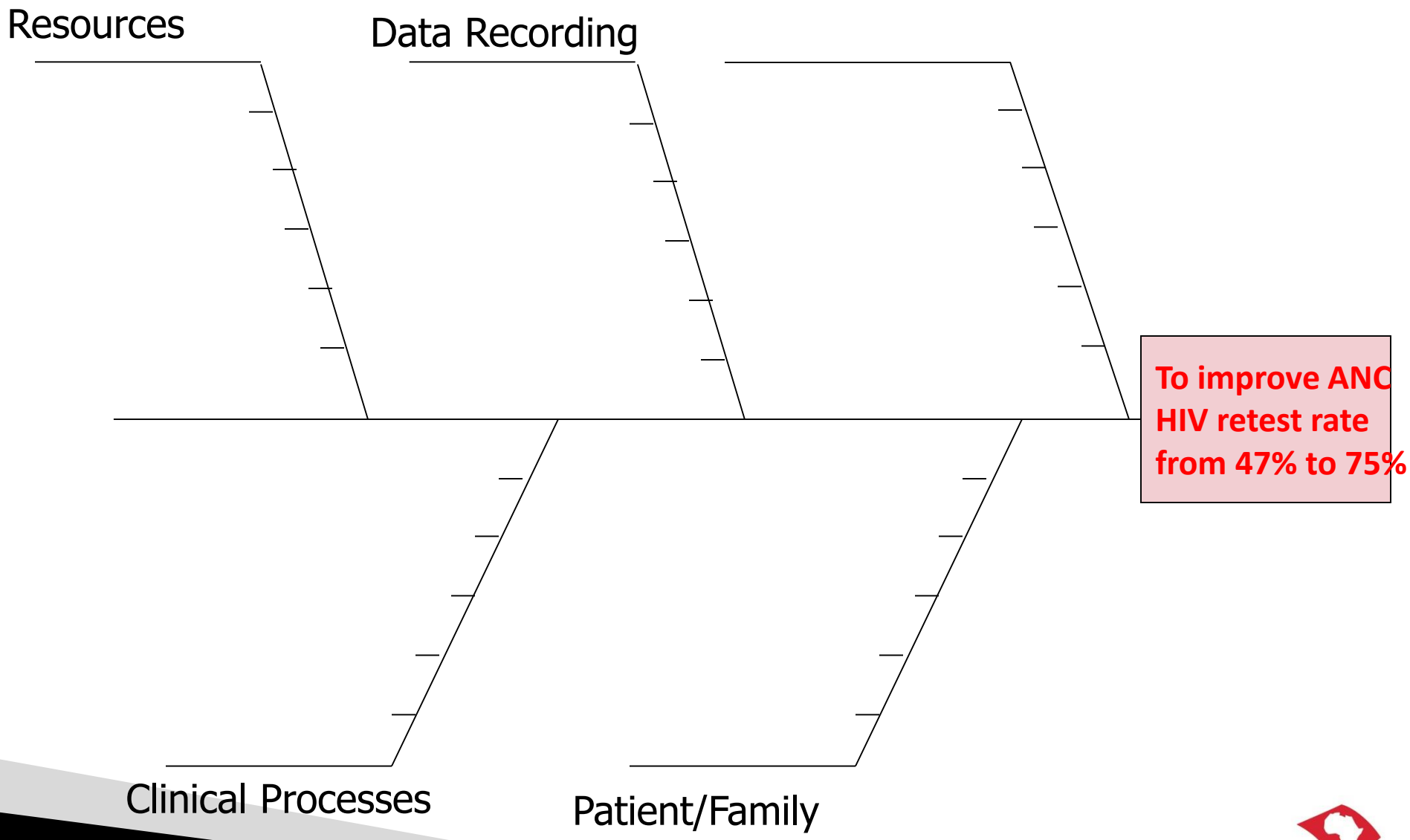
THE AURUM INSTITUTE

Process with Change Idea



THE AURUM INSTITUTE

Fishbone Diagram



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

THE AURUM INSTITUTE

5 Whys

THE AURUM INSTITUTE

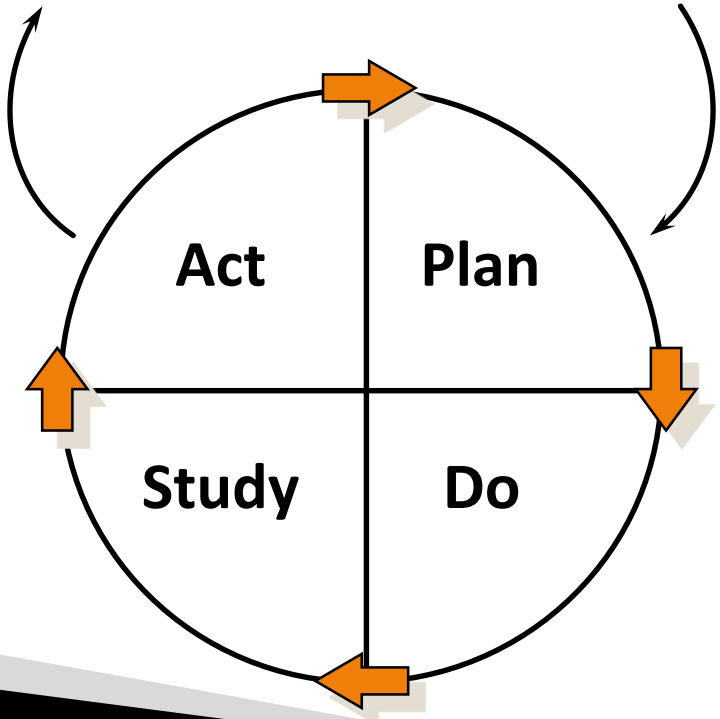
Model for Improvement

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?

Measurement



Improvement Guide, Chapter 1, p.24

Appendix C, p. 454

THE AURUM INSTITUTE

Measurement

- **Outcome**
  - Aim
- **Process**
  - Change Idea
  - Did I do what I said I would do?

THE AURUM INSTITUTE

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

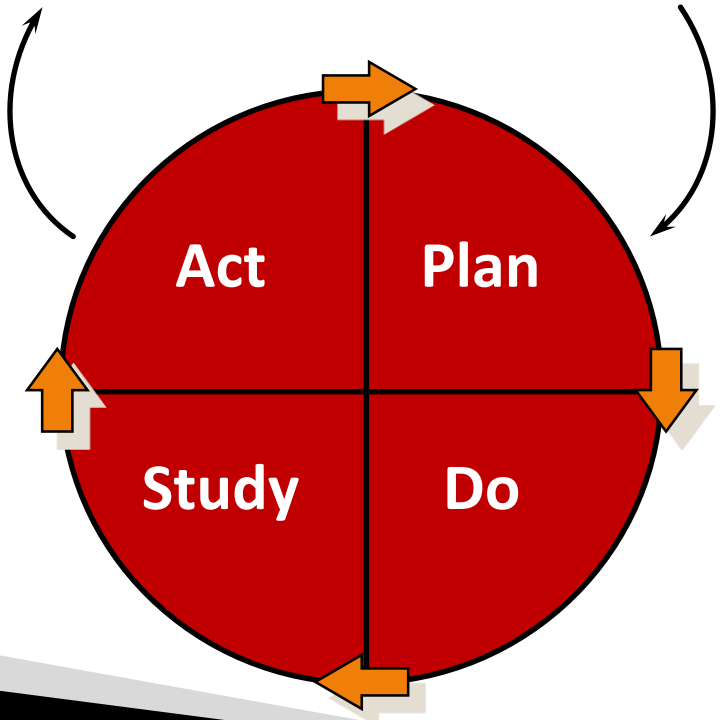
THE AURUM INSTITUTE

Model for Improvement

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

THE AURUM INSTITUTE

How do I know if my change idea is beneficial or not?

TEST

THE AURUM INSTITUTE

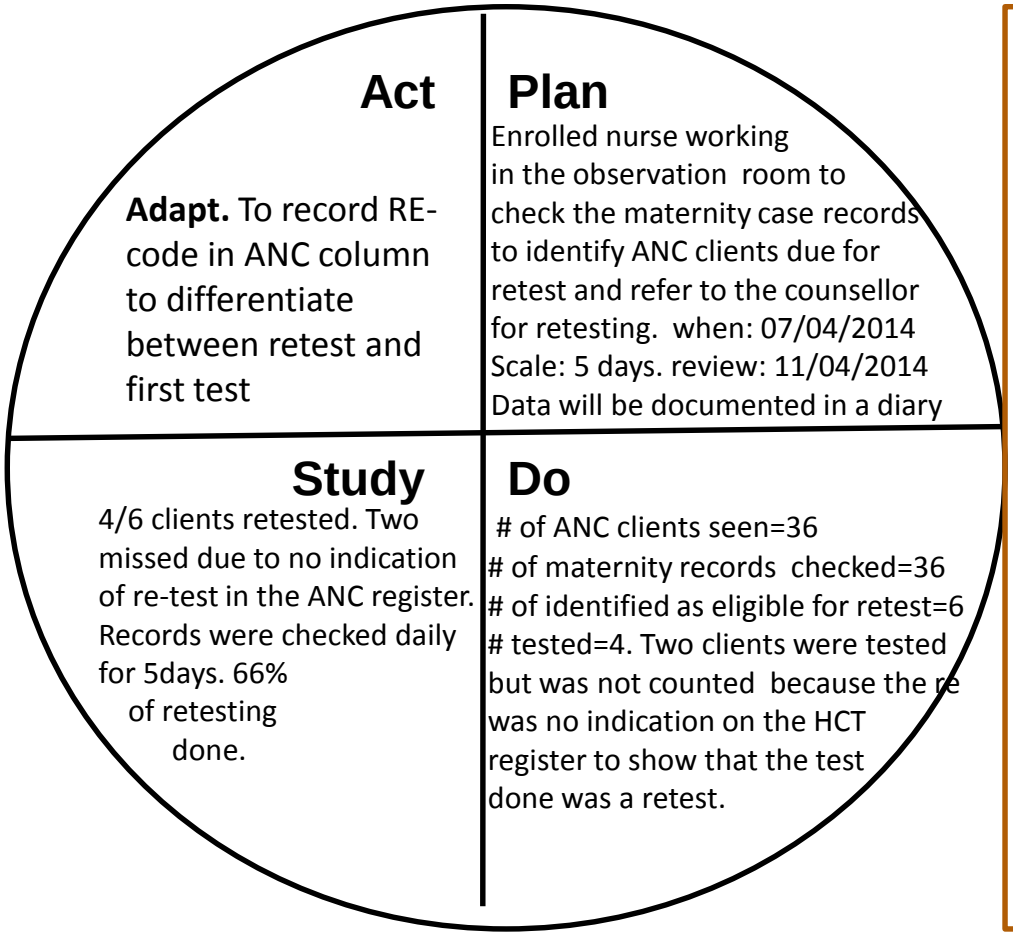
Example 1:PDSA 1A Starting to test the change idea

THE AURUM INSTITUTE

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 [illegible] the retest before their consultation all ANC women will be retested

THE AURUM INSTITUTE

Process Measure Collection

	# of ANC clients seen	# of maternity case records checked.	# of ANC clients identified as eligible for retest	# of ANC clients retested
07/04/2014	9	9	1	1
08/04/2014	6	6	0	0
09/04/2014	6	6	1	0
10/04/2014	5	5	1	1
11/04/2014	10	10	3	2
Total	**36**	**36**	**6**	**4**

THE AURUM INSTITUTE

PDSA 1B

Adaptation

THE AURUM INSTITUTE

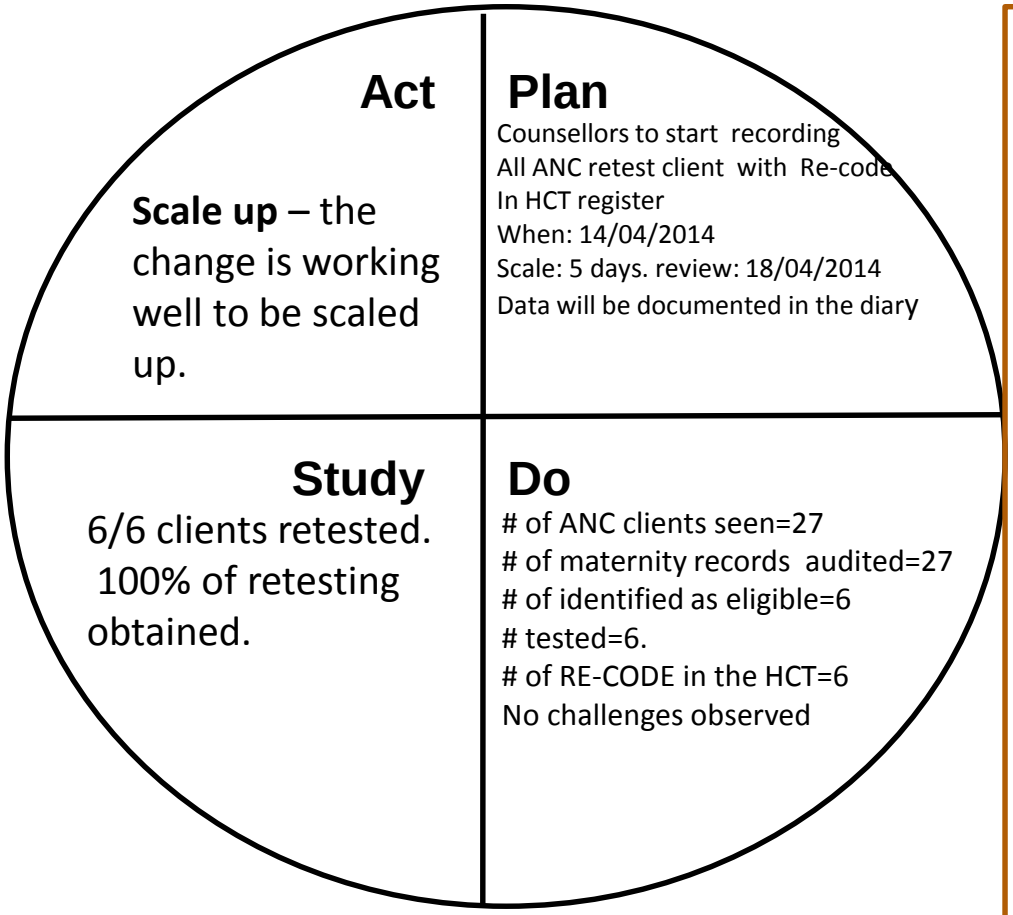
Overall Aim: To improve ANC HIV Retest Rate from 63% to 80% by 31 July 2014

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-CODES in the HCT register

The Prediction: we think our ANC retest rate will increase to 100% due to the [illegible] idea continuing as well as having an improved recording system in place.

THE AURUM INSTITUTE

Process Measure Collection

	# 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
14/04/2014	7	7	1	1	1
15/04/2014	5	5	2	2	2
16/04/2014	6	6	2	2	2
17/04/2014	4	4	0	0	0
18/04/2014	5	5	1	1	1
Total	**27**	**27**	**6**	**6**	**6**

THE AURUM INSTITUTE

PDSA 1C

Scale up

THE AURUM INSTITUTE

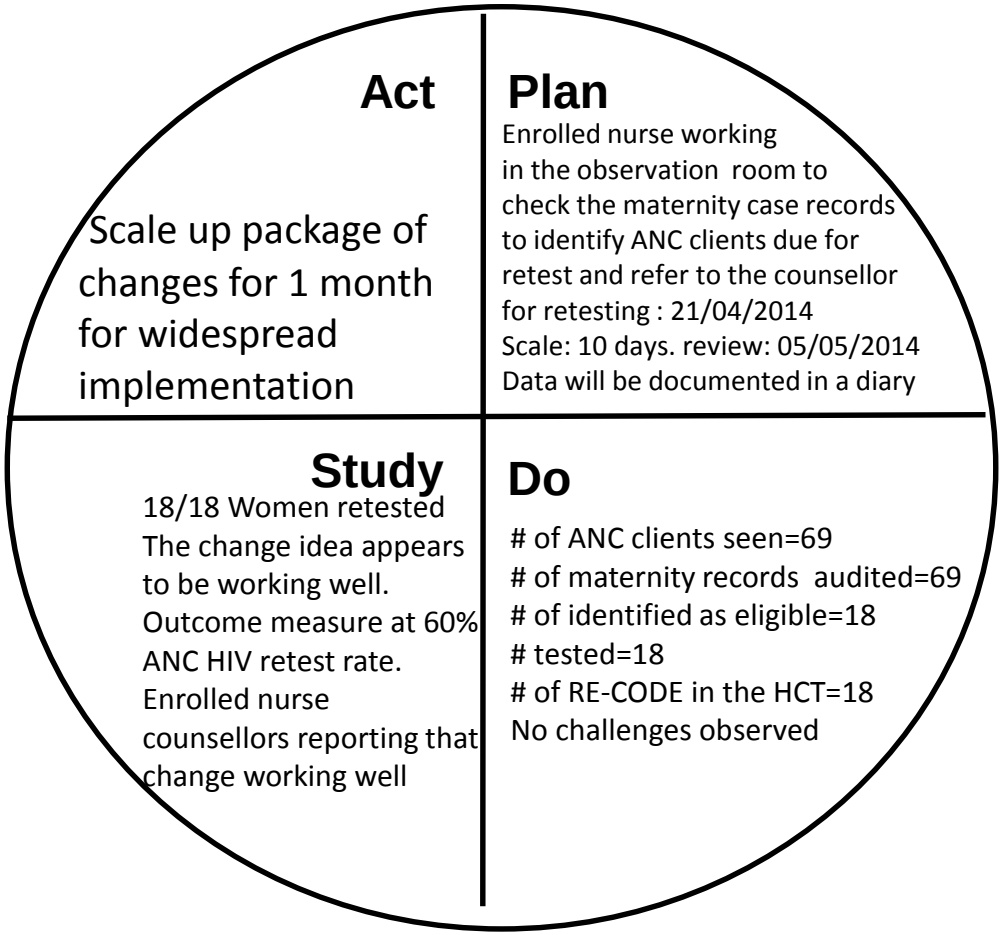
Overall Aim: To improve ANC HIV Retest Rate from 63% to 80% by 31 July 2014

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



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 [illegible] through better identification, reordering of the process and better recording

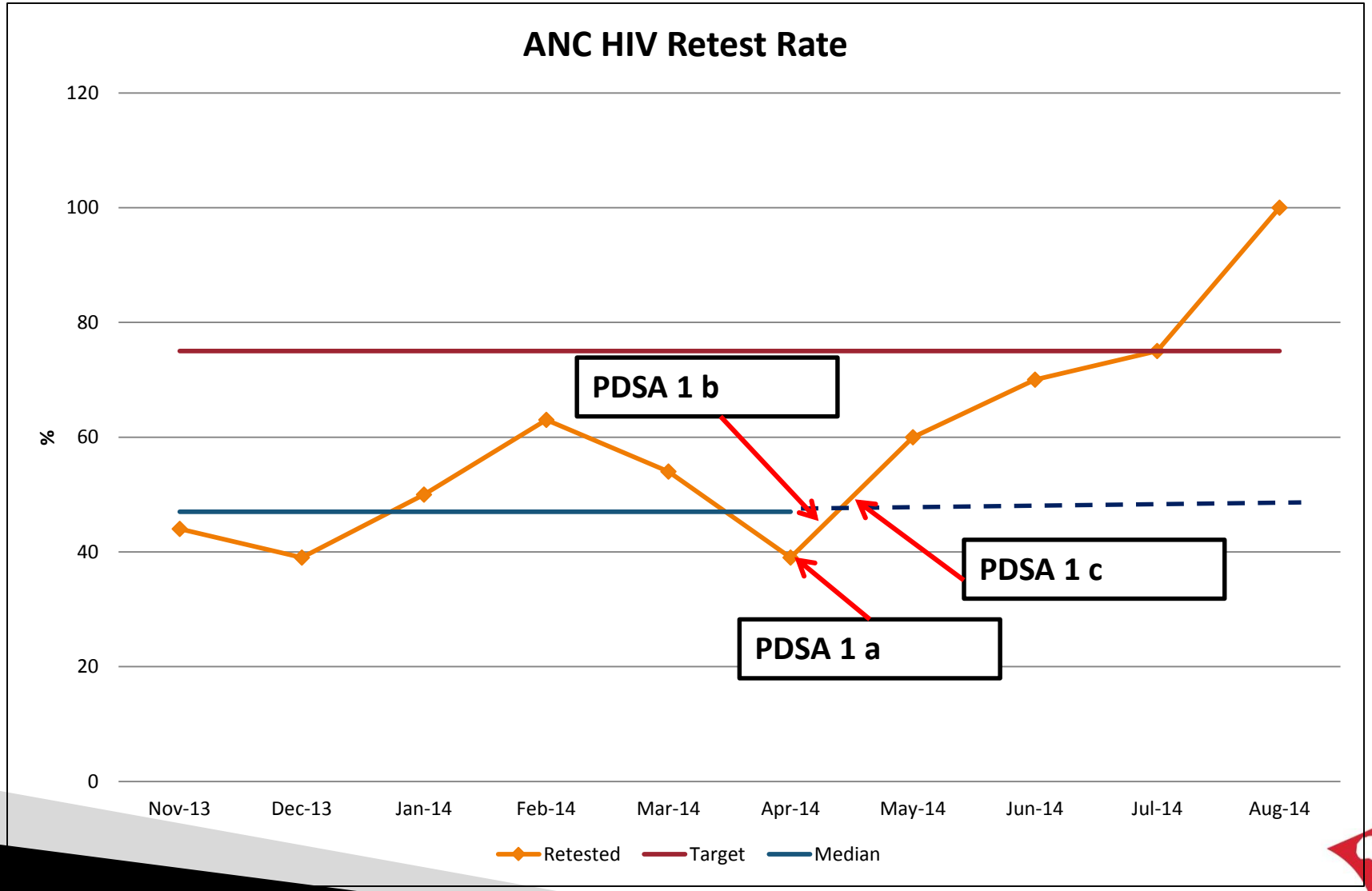
THE AURUM INSTITUTE

Process Measure Collection

	# 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
Week 1	34	34	10	10	10
Week 2	35	35	9	9	9
Total	**69**	**69**	**18**	**18**	**18**

THE AURUM INSTITUTE

Run chart showing improvement of outcome measure: ANC HIV Retest Rate



THE AURUM INSTITUTE

Example 2: PDSA 1A

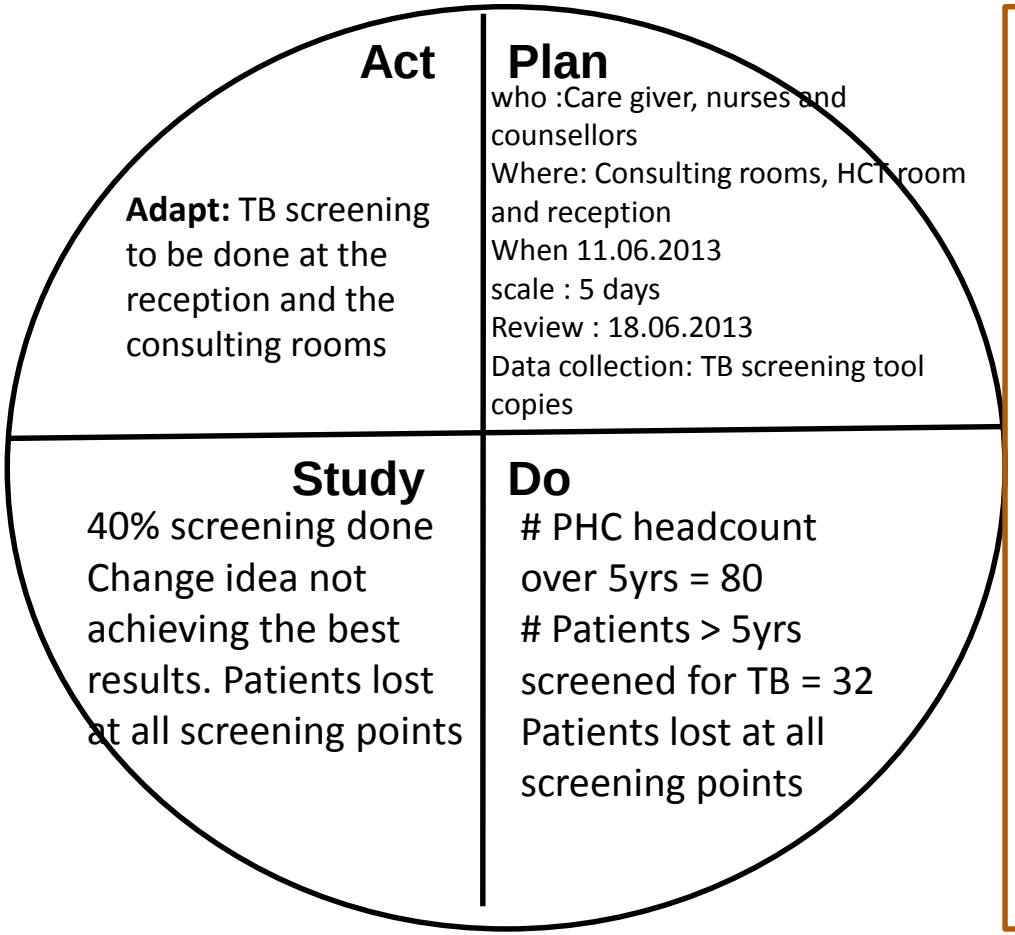
THE AURUM INSTITUTE

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



The Measures
Outcome:
TB Screening rate
Process:
PHC headcount over 5yrs
Patients > 5yrs screened for TB (TB screening tool copies)

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 1B

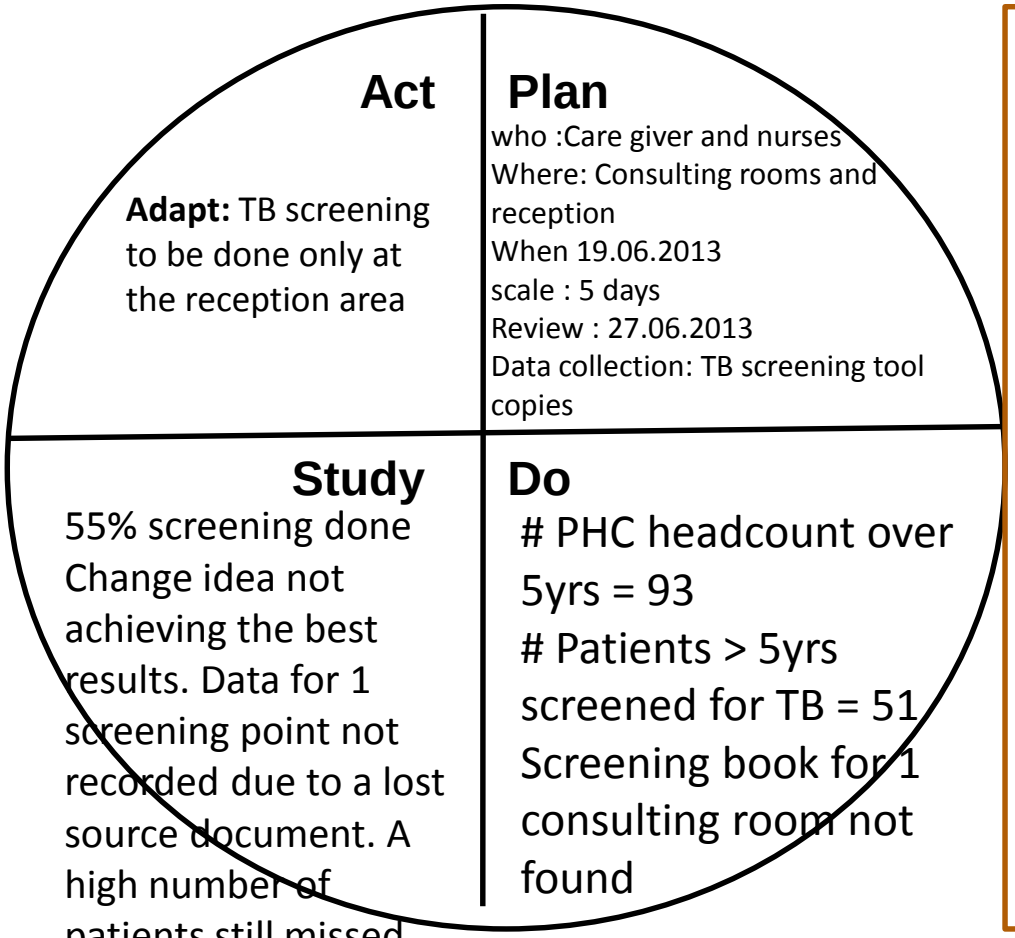
THE AURUM INSTITUTE

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



The Measures
Outcome:
TB Screening rate
Process:
PHC headcount over 5yrs
Patients > 5yrs screened for TB (TB screening tool copies)

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 1C

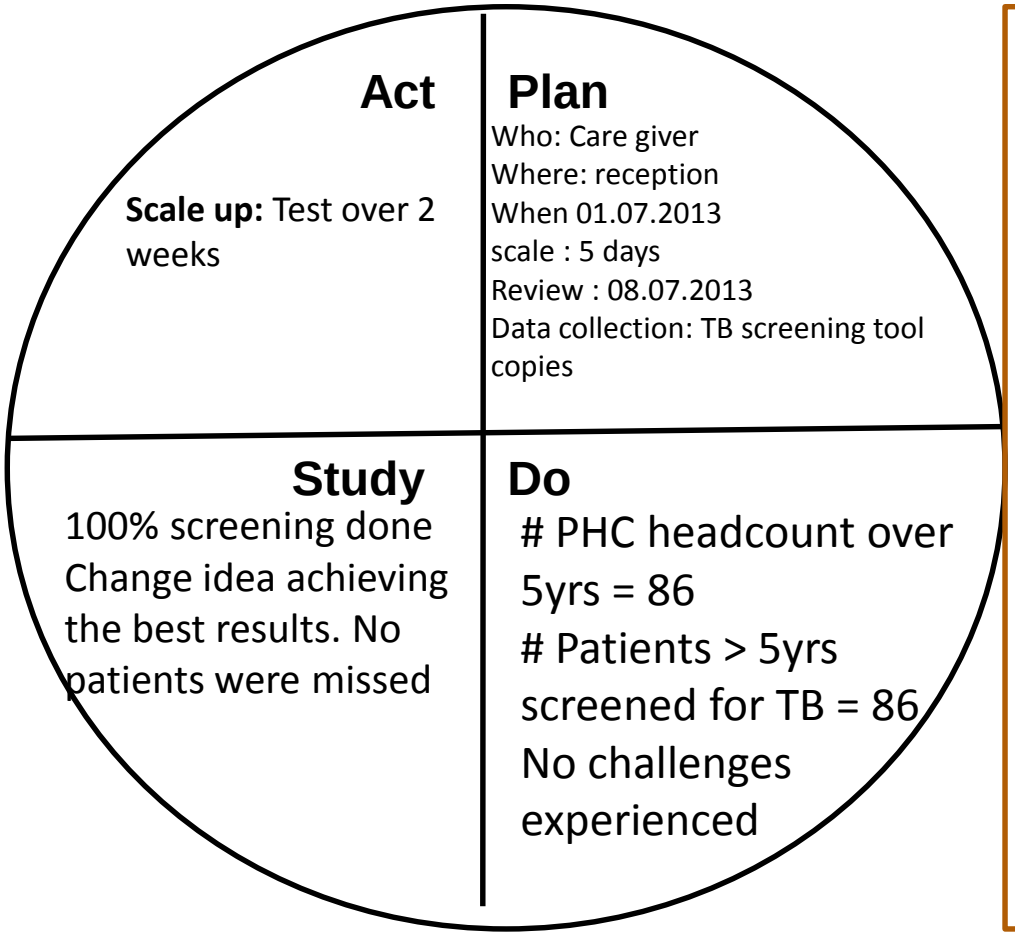
THE AURUM INSTITUTE

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)

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

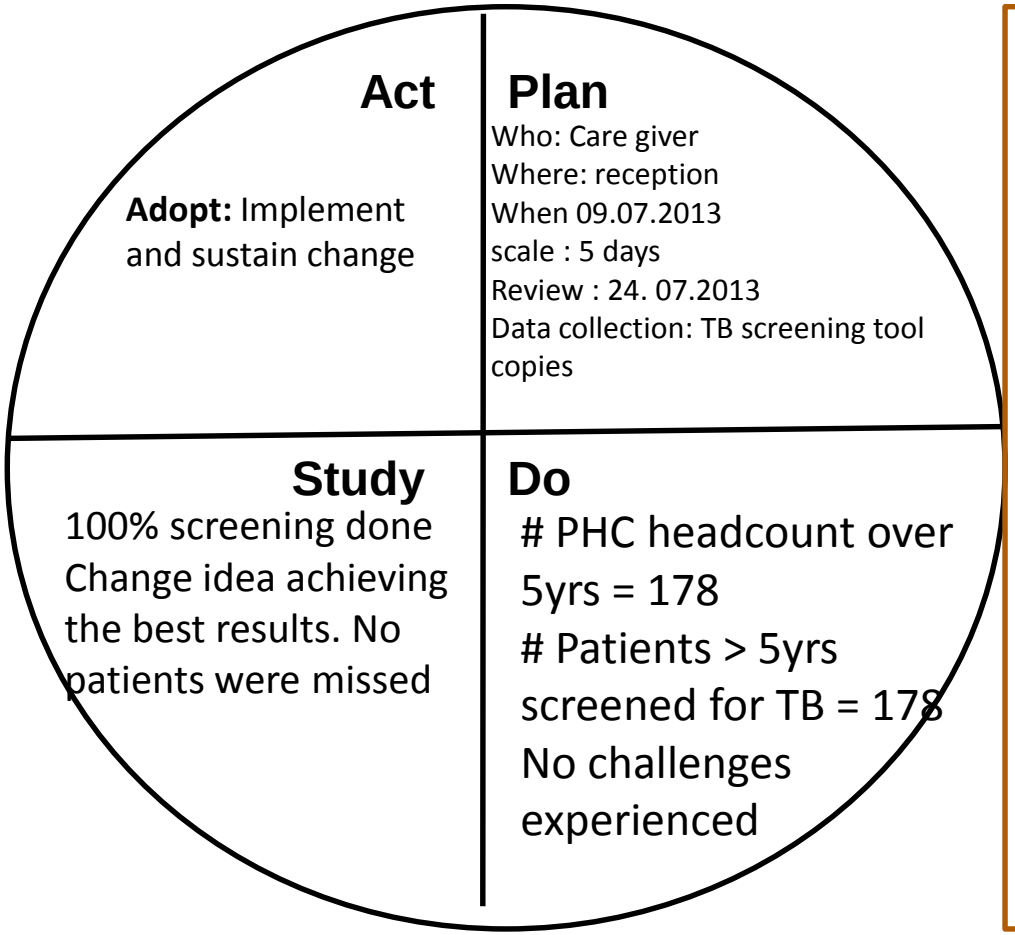
THE AURUM INSTITUTE

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

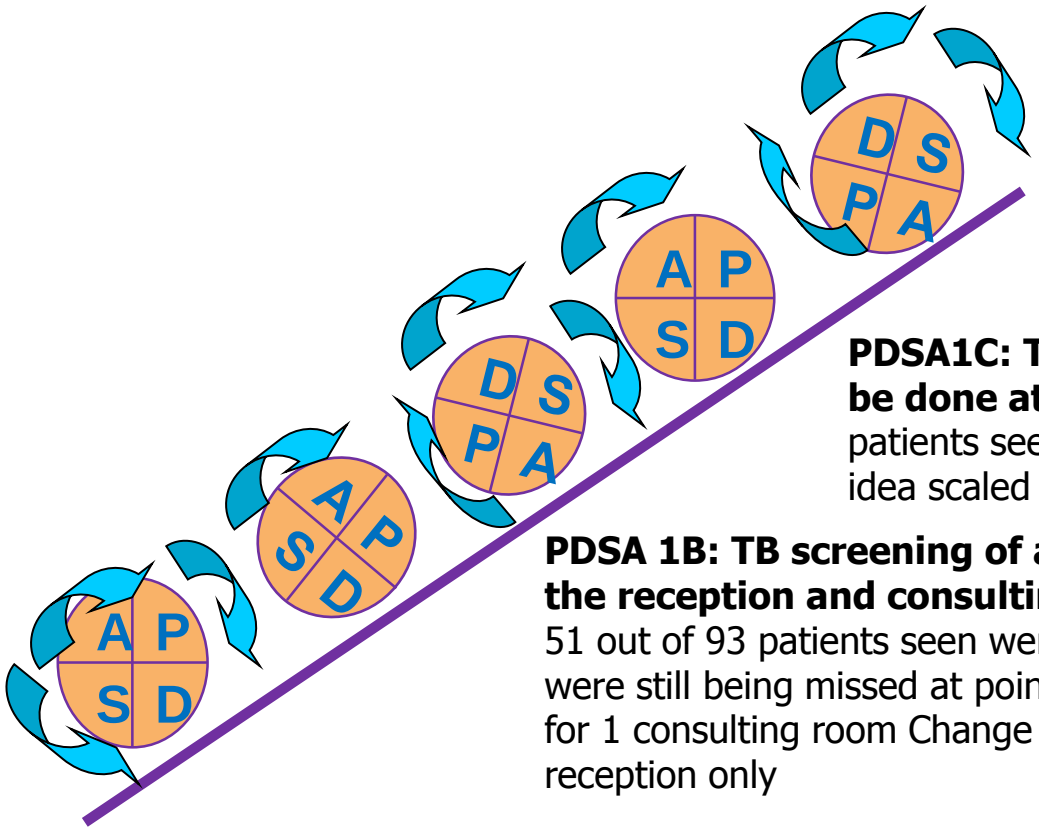


The Measures
Outcome:
TB Screening rate
Process:
PHC headcount over 5yrs
Patients > 5yrs screened for TB (TB screening tool copies)

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



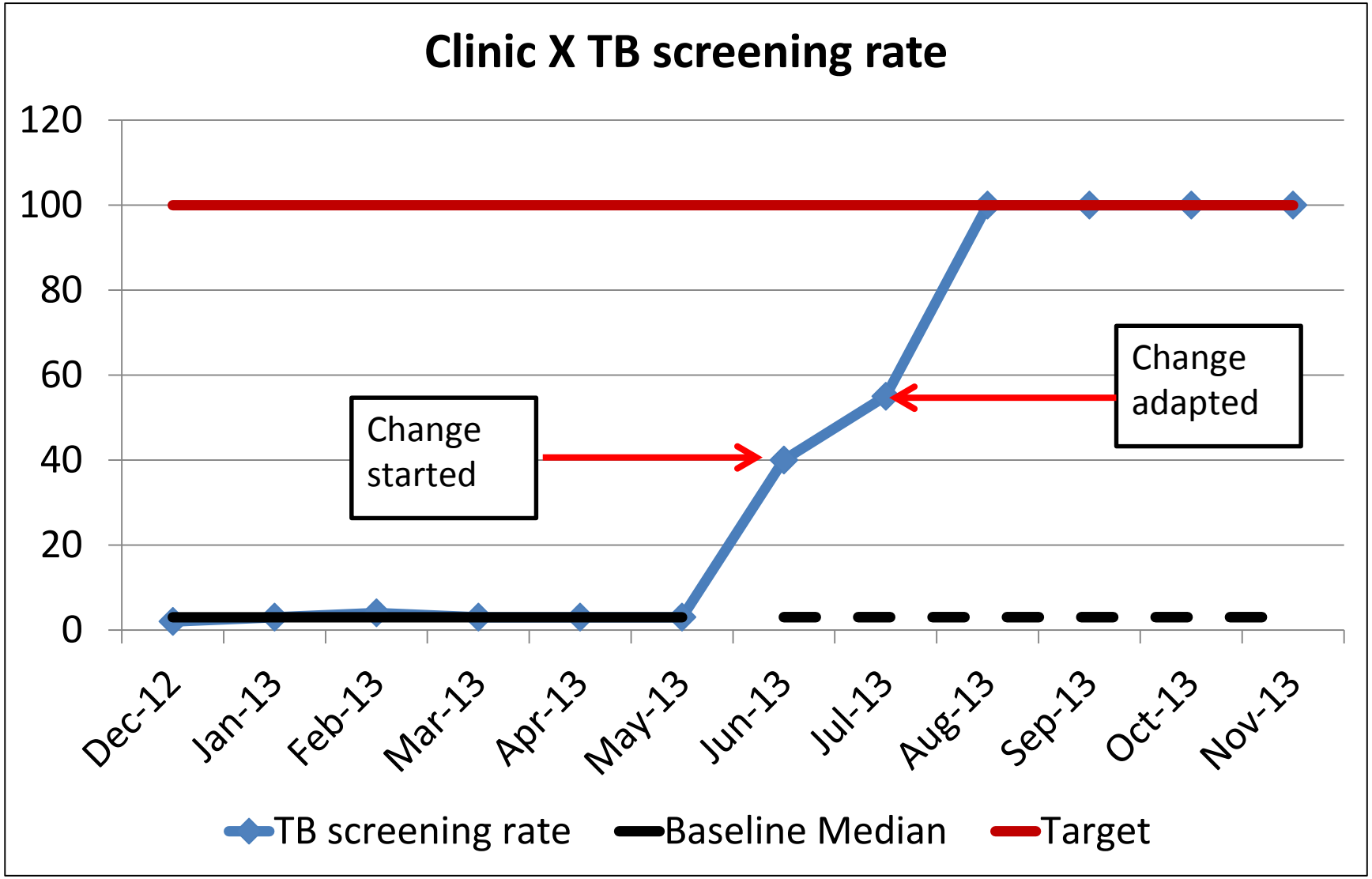
PDSA1D: TB screening of all patients to be done at the reception. 178 out of 178 patients seen were screened for TB. Change idea adopted and implemented

PDSA1C: 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 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 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

Run chart showing improvement of outcome measure: TB Screening Rate



i can

ngingakhona

a quality improvement initiative

i can ngingakhona

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

i can change the world.

Could it really be that simple? We think so.

Out of this philosophy comes the concept of 'I can – 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 health care – not just for one day but every day.

It's simple. Just think of ONE thing you can do differently in every day 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 tiring 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 >

i can make a pledge and change the world...

This pledge tree is nurtured by the staff at:

.....

.....

.....

i can
ngingakhona

PEPFAR

THE AURUM INSTITUTE

i can
ngingakhona

a quality improvement initiative

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 dearing 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