PRIMARY HEALTHCARE

LABORATORY HANDBOOK

Facilitator guide

health
Department:
Health
REPUBLIC OF SOUTH AFRICA

NATIONAL HEALTH
LABORATORY SERVICE

ACKNOWLEDGMENTS

The Department of Health and the National Health Laboratory Service (NHLS) would like to acknowledge the following individuals/resources for their contribution in the development of this handbook:

Ideal Clinic Team

- Dr Shaidah Asmall (Senior Technical Advisor NDoH)
- Dr Ruth Lekalakala (Pathologist Microbiology NHLS)
- Mr Naseem Cassim (Senior Researcher (Public Health) NHLS)

Department of Health (DoH) stakeholders

- Ms Jeanette Hunter (NDoH DDG: Primary Healthcare)
- Dr Yogan Pillay (NDoH DDG: HIV and AIDS, TB and Maternal, Child and Women's Health)
- Dr Anban Pillay (NDoH DDG: Health Regulatory and Compliance Management)
- National District Health Services Committee
- National and PHC Essential Medicine List Committees
- National Clinical Programme Managers
- Provincial Laboratory Co-ordinators
- Provincial representatives who participated in the National Consultation Workshop

NHLS Resources

- NHLS Laboratory Handbook (served as a reference document)
- NHLS Tshwane Laboratory User Handbook

NHLS Stakeholders

- NHLS CEO
- NHLS Executive Management Team
- NHLS Business Managers
- NHLS Expert Committees
- Representatives who participated in the National Consultation Workshop

Facilitator Guide Developer

- Dr Zarina Khan

PRIMARY HEALTHCARE

LABORATORY HANDBOOK

FACILITATOR GUIDE

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SECTION **ONE**

BACKGROUND AND RATIONALE FOR THE DEVELOPMENT OF THE PHC LABORATORY TOOLKIT

time
45 *hours*

Session Outcomes

By the end of Session 1 you will be able to:

- **Describe** the development and health care context of the PHC Laboratory Toolkit
- **Describe** the Ideal Clinic Initiative (ICI)
- **Elaborate** on current Clinic-Laboratory Interface (CLI) challenges
- **Describe** the rationale behind the development of the PHC Laboratory Toolkit to address CLI challenges
- **Explain** how the PHC Laboratory Toolkit attempts to address Ideal Clinic Goals and Clinic –Laboratory Interface challenges

session

FORMAT

- Context: PHC Laboratory Toolkit
- Ideal Clinic Initiative
- Current Clinic-Laboratory Interface Challenges
  - Classroom activity - 20-30 minutes in total
  - Group work exercise 10-15 minutes
  - Post-its and allocation on the flipchart 5 minutes
  - Debrief 10-15 minutes
- Rationale for the development of the PHC Laboratory Toolkit to address CLI challenges

session

RESOURCES

- PowerPoint Slides
- Facilitator Guide
- Classroom activity on the current clinic-laboratory interface challenges
  - Prepared flipchart as indicated in the facilitator notes
  - Post-its

Pre-reading for this session includes the following documents that are both available from www.idealclinic.org.za/docs: -

1. Ideal clinic manual (follow the Ideal Clinic Framework link)
2. Primary Health Care Laboratory Handbook available (follow the Manuals and Handbooks link)
3. National Development Plan – Chapter 11: Promoting health (https://www.brandsouthafrica.com/wp_download_viewer.php?file=wpcontent/uploads/brandsa/2015/01/NDP_Chapter_10_Promoting_Health.pdf)
4. NHI White Paper (http://www.health.gov.za/index.php/nhi)
5. Provincial guidelines for the implementation of the three streams of PHC Re-engineering (http://www.jphcf.co.za/wp-content/uploads/2014/06/GUIDELINES-FOR-THE-IMPLEMENTATION-OF-THE-THREE-STREAMS-OF-PHC-4-Sept-2.pdf)
6. National Development Plan – Chapter 11: Promoting health (https://www.brandsouthafrica.com/wp_download_viewer.php?file=wp-content/uploads/brandsa/2015/01/NDP_Chapter_10_Promoting_Health.pdf)

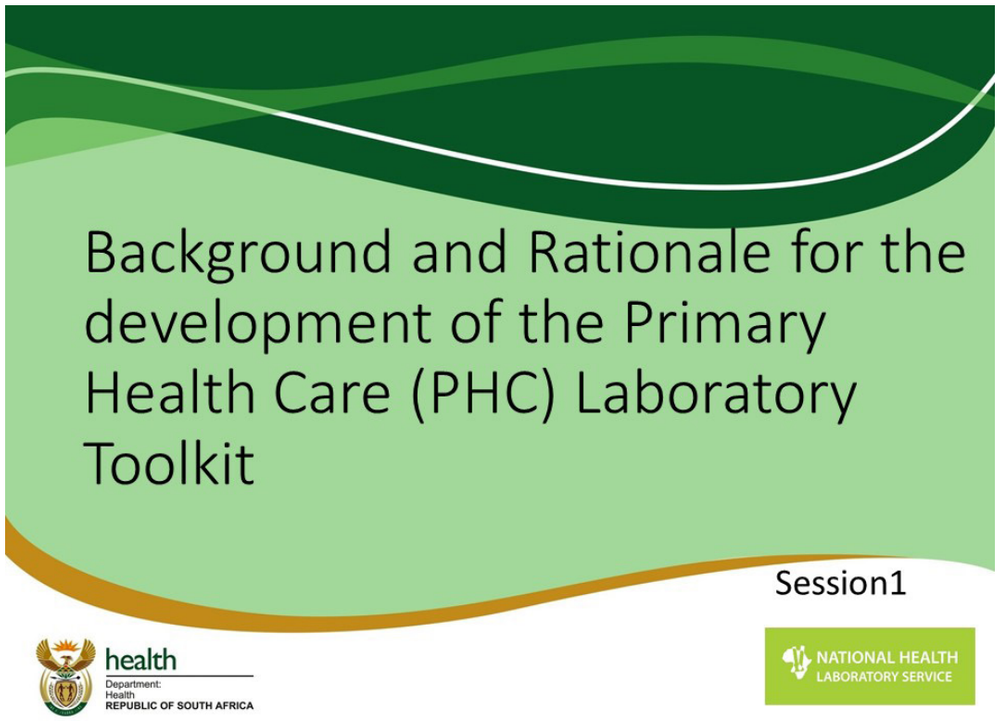
SECTION **ONE**

slide **1**

Workshop Process –Facilitator input

- Welcome participants to workshop on the implementation of the Primary Health Care (PHC) Laboratory Toolkit.
- Explain that the workshop has been divided into four (4) sessions:
  - **Session 1-Background** and **Rationale for the development of the PHC Laboratory Toolkit;**
  - **Session 2-PHC Laboratory Toolkit**
  - **Session 3- Roles and Responsibilities**
  - **Session 4-Practical Application**
- Explain that the approach to the sessions are a combination of presenting information about the PHC Laboratory Handbook, implementation considerations and some application exercises.
- Agree on ground rules for the workshop. These can include aspects such as:
  - Use of cell-phones and laptops;
  - Managing time; and
  - Respect and tolerance.
- Set a tone for the session by encouraging participants to ask questions, make comments and inputs.

slide **2**



Workshop Process-Facilitator input

- Remind participants that Session 1 sets the context for Sessions 2, 3, and 4.
- It is important for participants to understand that the rationale for developing the toolkit is soundly grounded in a broader context.

SECTION **ONE**

slide **3**

Session Objectives

By the end of the session you will be able to:

- Describe the development and health care context of the PHC Laboratory Toolkit
- Describe the Ideal Clinic Initiative (ICI)
- Elaborate on current Clinic-Laboratory Interface (CLI) challenges
- Describe the rationale behind the development of the PHC Laboratory Toolkit to address CLI challenges
- Explain how the PHC Laboratory Toolkit attempts to address Ideal Clinic Goals and Clinic –Laboratory Interface challenges

Workshop process-Facilitator input

- Briefly take participants through the session objectives.
- Explain that the session will-
  - Start by highlighting key health care challenges;
  - Then examine the Ideal Clinic Initiative;
  - Highlight the challenges related to the Clinic-Laboratory Interface; and
  - Finally, explore what the PHC Laboratory Toolkit is and how it reflects the building block to address some of the broader health care challenges.

slide 4

Session Format

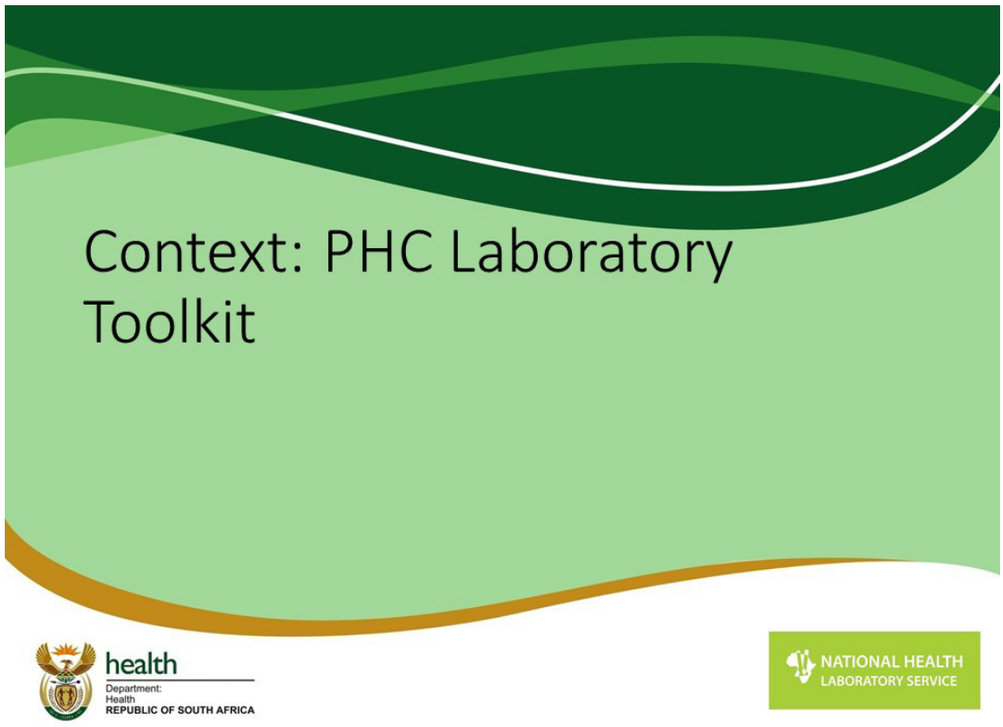
- Context: PHC Laboratory Toolkit
- Ideal Clinic Initiative
- Current Clinic-Laboratory Interface Challenges
- Rationale for the development of the PHC Laboratory Toolkit to address CLI challenges

Workshop process-Facilitator input

- Take participants through the session format outline provided

SECTION **ONE**

slide **5**



Workshop process-Facilitator input

- Explain that you will now examine the context
- Please note that the following pre-reading is recommended as a background to the materials covered in this and subsequent sessions

1. Ideal clinic manual (follow the Ideal Clinic Framework link)
2. Primary Health Care Laboratory Handbook available (follow the Manuals and Handbooks link)
3. National Development Plan – Chapter 11: Promoting health (https://www.brandsouthafrica.com/wp_download_viewer.php?file=wpcontent/uploads/brandsa/2015/01/NDP_Chapter_10_Promoting_Health.pdf)
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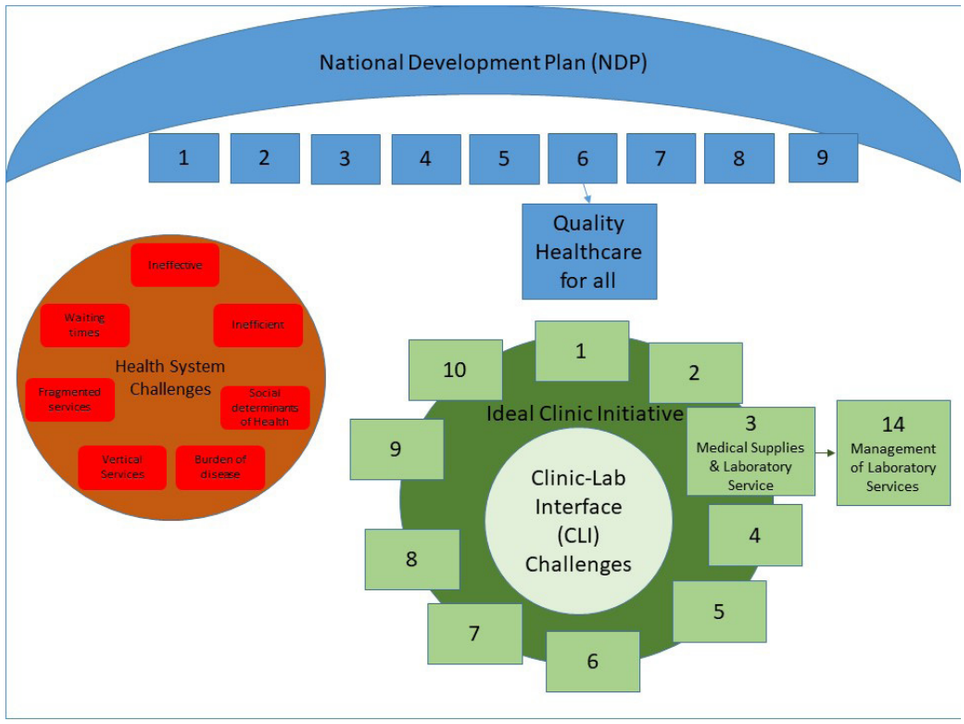
slide **6**



Workshop process-Facilitator input

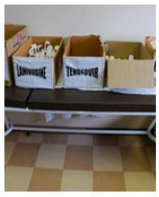
- Explain to participants that the NDP sets the broad development agenda for South Africa There nine broad objectives.
- Focus on objective 6 – Quality health care for all.
- In order to achieve these objectives we require a well-functioning and effective health system that will facilitate the attainment of the desired health outcomes.
- Explain to the participants how the NDP 2030 Health goals are linked to the ideal clinic initiative. Optimally functioning PHC facilities are an enabler to improve the health outcomes of the country.
- Discuss the current challenges in the health sector.
- Ask the participants to give examples of an ineffective and inefficient health system.
- How would this relate to patient care?

SECTION **ONE**

slide **7**

Current status of PHC services

Patients experience **low-quality service delivery**, with **non-integrated care** that is not aligned with the patient's needs	Patient **waiting time** in clinics is 2-5 hours, with on average 79% of time in clinic spent waiting
80% of clinics are not "fit for purpose", with **obsolete or inadequate infrastructure**	**Essential (medical) supplies** are often missing at clinic level, because of a broken and unresponsive **supply chain**



7

Workshop process-Facilitator input

- Take participants through the patient's experience of health care services and how these relate to waiting times.
- Discuss the poor state of our health facilities.

slide 8

Workshop process-Facilitator input

- Indicate to participants that this part of the session will focus on the Ideal Clinic Initiative.
- Remind them that we are still unpacking the high-level overview from the context, but now going into a bit more detail.
- Before getting started ask participants what they know that the Ideal Clinic Initiative (ICI). Take a few responses and then proceed with the next few slides.
- Draw parallels between responses given by participants and the points on the slides, where possible.

SECTION **ONE**

slide 9

What is the Ideal Clinic Initiative (ICI)

- The Ideal Clinic initiative aspires to transform PHC services by:-
  - Strengthening the public healthcare system
  - Ensuring consistently good quality of care is delivered

A fundamental building block of National Health Insurance (NHI)

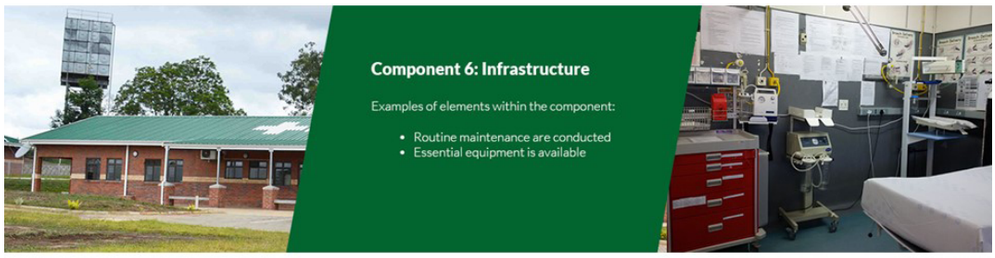
Workshop process- Facilitator input

- Take participants through what it means to strengthen the public health care system to offer consistently good quality of care.
- Ask participants to look at the image on the right of the slide from KT Motubatse Clinic that lists all the services offered.

slide 10

What is the Ideal Clinic Initiative (ICI)

- The 'Ideal Clinic' (IC) initiative aims to systematically improve and correct deficiencies in Primary Health Care (PHC) facilities in the public sector.
- To achieve this an Ideal Clinic requires good infrastructure, adequate staff, adequate medicine and supplies, laboratory services, good administrative processes and adequate bulk supplies.
- Additionally stakeholder support is required to ensure the provision of quality health services to the community



Workshop process- Facilitator input

- Ask the participants to look at the picture below.
- How does PHC facility in the image fare – does it reflect an ideal state?
- Ask participants how an ideal clinic impacts on patient care.

SECTION **ONE**

slide **11**

Key aspects of the Ideal Clinic Initiative ICI

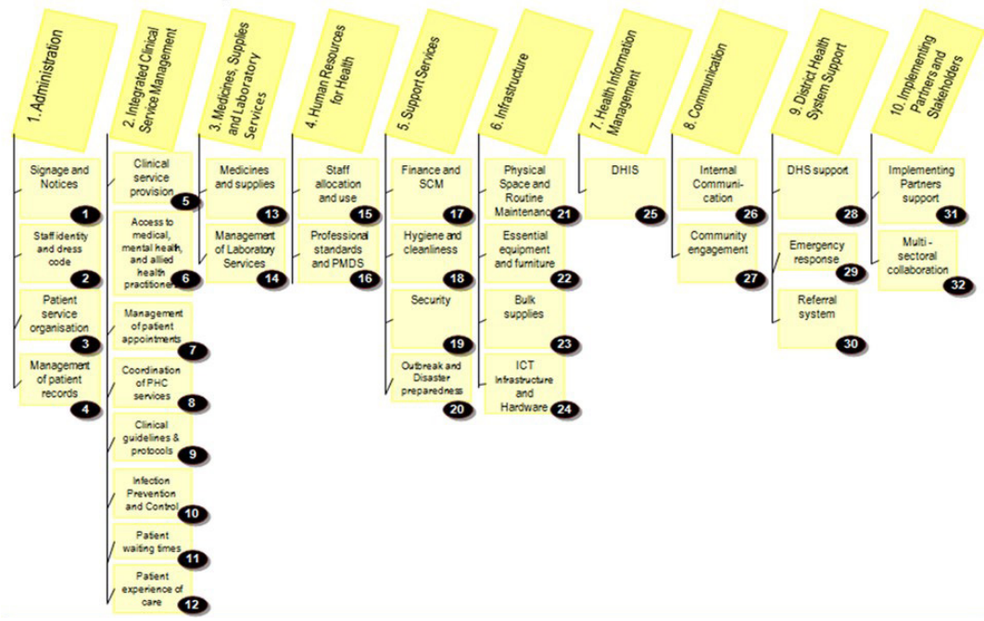
- Range of services (PHC package of care)
- Provision of good quality integrated health services to the community
- A clinic with good infrastructure
- Adequate staff
- Adequate medicine and supplies
- Good administrative processes and adequate bulk supplies
- Use applicable clinical policies, protocols, guidelines as well as partner and stakeholder support

Workshop process-Facilitator input

- Take participants through all the aspects that make up an Ideal Clinic-referring back to the two examples covered in the previous slides.
- Discuss in particular aspects related to the following: -
  - Package of care;
  - Providing a good quality integrated service;
  - Adequate infrastructure, staff and medicines and supplies; and
  - Using integrated clinical policies, protocols and guidelines.

slide 12

Ideal Clinic dashboard components and sub-components

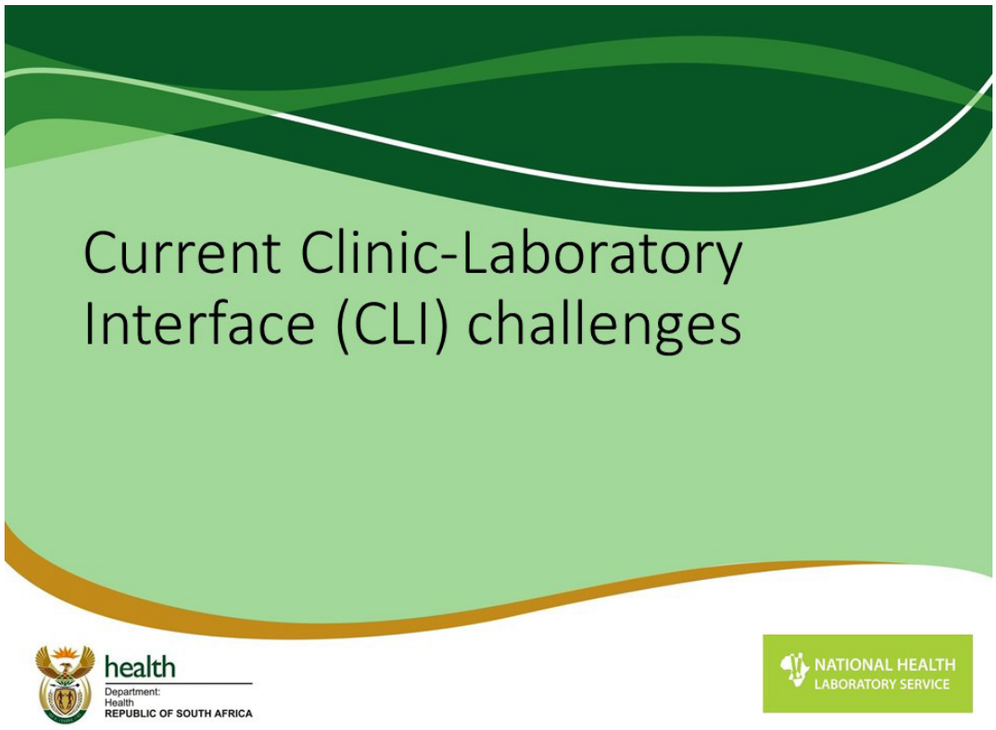


Workshop process- Facilitator input

- Take the participants briefly through the 10 components, to provide a high-level overview.
- Focus on sub-component 14 that relates to the management of laboratory services, and explain that the PHC Laboratory Toolkit fits into this sub-component.
- Ask participants if they have used the ideal clinic dashboard in their health facilities to judge level of familiarity.

SECTION **ONE**

slide **13**

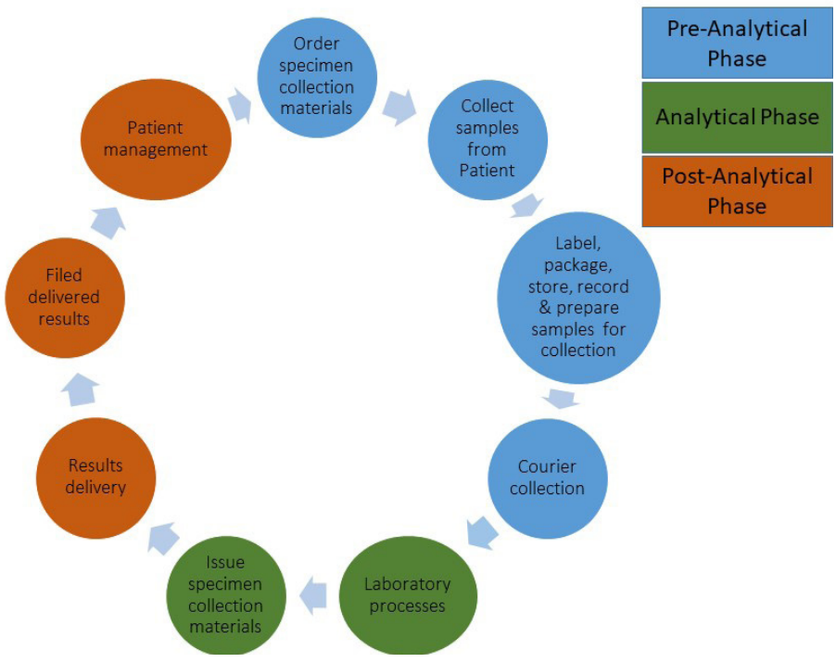


Workshop process- Facilitator input

- Indicate to participants that the next part will focus on the Clinic-Laboratory Interface.
- Identifying challenges that arise from this interaction.
- Consider how the PHC Laboratory Toolkit may address these.

slide 14

What is the Clinic-Laboratory Interface (CLI)



Workshop process-Facilitator input

- Walk the participants through the CLI process and indicate where each activity is taking place.
- The activities have been divided into three phases: -

  Pre-analytical: from sample collection to courier collection (Blue)

  Analytical: Testing process in the laboratory (Green)-these relate to actual testing or analytical processes

  Post-analytical: From result delivery to patient management (Orange)

SECTION **ONE**

slide **15**

Classroom exercise Challenges: Clinic-Laboratory Interface

1.In your group, please discuss the following question-

- What are the current clinic-laboratory interface challenges at both the health facility and laboratory levels?

2. After your discussion the facilitator will provide your group with post-it.

- *Identify the top 3-5 challenges.*
- *Please add these at the appropriate phase on the flipchart-*
- *Pre-Analytical, Analytical and Post-Analytical.*

Workshop process- Classroom exercise

Purpose:

- This exercise aims to give participants an opportunity to reflect on the challenges related to the clinic –laboratory interface.
- These challenges establish a context for the preventative measures and integration aspects that the PHC Laboratory Toolkit attempts to address.

Process-See Time allocation in Session Format on page 1.

- Prepare a flipchart with the Clinic-Laboratory Interface diagram from the previous slide, before the session. Make it big and legible. Put it up on the wall with enough wall space around it.
- Divide participants into small groups of about 6-8.
- Ask them to discuss the question for about 10 minutes.
- Then provide each group with 5 post-its
- Ask them to agree in the group on the top 3-5 priority challenges. Keep this exercise moving at a brisk pace.
- Now ask the groups to add their challenges to the diagram you have put up on the wall at the appropriate areas where these challenges arise.

Debrief:

- Ask for any observations.
- Key points to note-

  The “hot” spots where there is a predominance of challenges.

  The diagram reflects an end-to-end process; challenges at any point in the process have knock-on effects. A fault in any one part of the process will result in an impact at multiple levels, such as patient diagnosis and treatment.
- Use the next two slides to summarise the discussion.

slide 16

Current Ideal Clinic Initiative (CLI) Challenges

- Non-standardised clinic-laboratory processes
- Multiple non-integrated requests forms in distribution
- Specimen collection materials availability and management
- Inconsistent courier collection
- Non-structured recording of laboratory results
- No guidelines on the collection, storage, packaging and transportation of laboratory specimens

Workshop process- Facilitator input

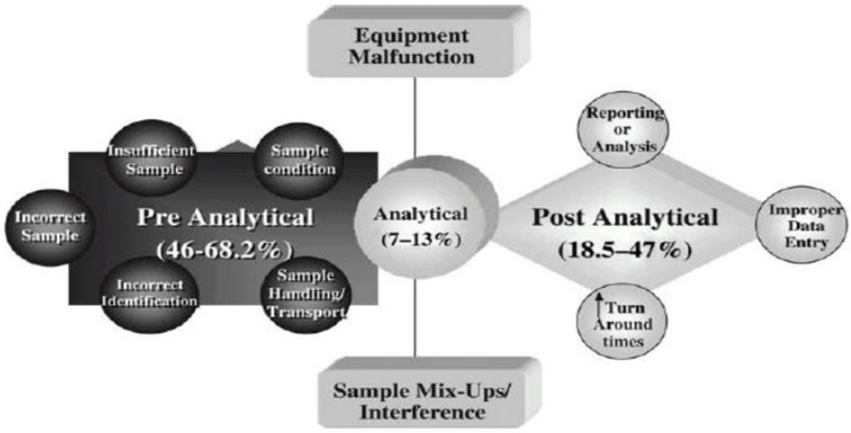
- This slide captures and summarises the points from the previous classroom exercise.

SECTION **ONE**

slide **17**

Analysis of CLI Errors

Figure 1: Types and rates of error in the laboratory testing process (Plebani 2006)



Most of the errors occur the pre and post analytical phase

Workshop process-Facilitator input

- Ask the participants to note that most CLI errors occur in the pre-analytical phase based on the research.
- Compare this to the diagram with their post-its.
- What is observed?

slide 18

Workshop process-Facilitator input

- Indicate to participants that the next part will look at interventions to address the CLI challenges as part of the broader Ideal Clinic Initiative (ICI).

SECTION **ONE**

slide **19**

Rationale for the PHC Laboratory toolkit

The aim is to improve the clinic-laboratory interface (CLI) to offer an effective and efficient health care service with the broader goal of improving patient outcome

To implement *standardised processes* for the Clinic Laboratory Interface (CLI) in the pre and post-analytical phases.

To implement *standardised practices* related to:-

- Integrated laboratory request forms
- Process to request specimen collection materials.
- Specimen recording within the health facility.

Workshop process-Facilitator input

- Take the participants through the rationale to develop the PHC Laboratory Toolkit, as outlined in the slide.
- Note the importance of standardised processes and practices – to drive integration, efficiency and effectiveness
- In Session 2, you will be introduced to the new standardised processes and practices.

slide 20

What is the PHC Laboratory Toolkit

- The PHC Laboratory Toolkit consists of:-
  - PHC Essential Laboratory List (ELL)
  - PHC laboratory handbook: to provide guidance for the selection of appropriate laboratory tests, specimen collection and preservation, storage, recording and courier collection.
  - N1 PHC request form: integrated request form for routine tests based on the Essential Laboratory List (ELL)
  - N2 Cytology request form: request form for pap smears
  - N3 Specimen Collection Materials Order Book: new standardized form for ordering specimen collection materials
  - N4 Facility Specimen Register: for recording samples prior to courier collection

Workshop process- Facilitator input

- Take participants through the components of the PHC Laboratory Toolkit
- Note that the toolkit is made- up of different parts that aim to address the gaps and challenges identified.
- Each component adds value to the toolkit but together these aim to enable integration, efficiency and effectiveness.

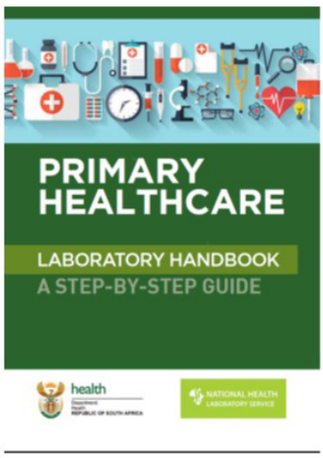
SECTION **ONE**

slide **21**

Pictures of the toolkit

Key:	
PHC	This test may be requested by all healthcare professional, i.e. nurse and doctor
PHC with Doctor (Dr)	This test may only be requested by a doctor

Test	Category
Chemical Pathology	
ALP (Alkaline Phosphatase)	PHC with Dr
ALT (Alanine Transaminase)	PHC
Amylase/Lipase	PHC with Dr
Calcium (serum)	PHC with Dr
Cholesterol	PHC
Creatinine (eGFR) (serum)	PHC
CRP (C-reactive protein)	PHC with Dr
Folate (serum)	PHC with Dr
FT4 (Free Thyroxine 4)	PHC with Dr
Gamma GT (GGT) (Serum)	PHC with Dr
Glucose	PHC
HbA1c (Glycated Haemoglobin)	PHC
LDL-Cholesterol (LDL-C)	PHC with Dr
Phenytoin	PHC with Dr
Pleural effusion Protein	PHC with Dr
Potassium (serum)	PHC
Prostate-Specific Ag (PSA)	PHC with Dr
Sodium (serum)	PHC with Dr
Total Bilirubin	PHC with Dr
Triglycerides	PHC
TSH (Thyroid-stimulating hormone)	PHC
Uric Acid (serum)	PHC
Urine albumin: creatinine ratio	PHC with Dr
Urine protein: creatinine ratio	PHC with Dr
Vitamin B12	PHC with Dr
Haematology	
Differential count	PHC with Dr
Full Blood Count (FBC)	PHC with Dr



Workshop process-Facilitator input

- Identify each image and indicate which component is illustrated:

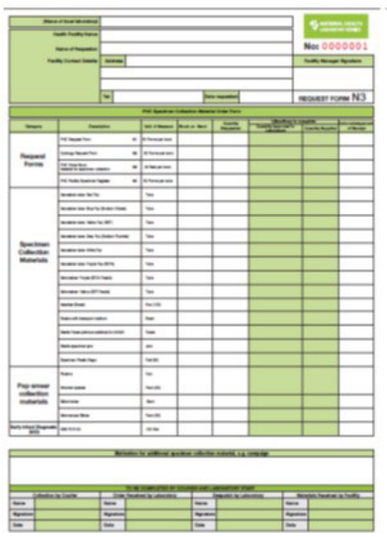
  Essential Laboratory Lists (ELL);

  The PHC Laboratory Handbook Cover; and

  N1 Form.
- Invite participants to find these components in the PHC Laboratory Toolkit. This aims to help participants become familiar with the toolkit. The more familiar they are with it the more likely they are to use it.

slide
22

Pictures of the toolkit



Workshop process-Facilitator input

- Identify each image and indicate which component is illustrated:
  N2 Form; and
  N3 Specimen Collection Order Book.
- Invite participants to find these components in the PHC Laboratory Toolkit.

SECTION **ONE**

slide **23**

Pictures of the toolkit

PHC Facility Specimen Register N4

No: 0000001

Number	Date of Sample Collection	Place Request form Barcode here	Patient Folder Number	Tests Requested	Results received
1		PLACE BARCODE HERE		Chemical Pathology ☐ Cytopathology ☐ Haematology ☐ HIV ☐ Microbiology ☐ TB ☐	Chemical Pathology ☐ Cytopathology ☐ Haematology ☐ HIV ☐ Microbiology ☐ TB ☐
2		PLACE BARCODE HERE		Chemical Pathology ☐ Cytopathology ☐ Haematology ☐ HIV ☐ Microbiology ☐ TB ☐	Chemical Pathology ☐ Cytopathology ☐ Haematology ☐ HIV ☐ Microbiology ☐ TB ☐
3		PLACE BARCODE HERE		Chemical Pathology ☐ Cytopathology ☐ Haematology ☐ HIV ☐ Microbiology ☐ TB ☐	Chemical Pathology ☐ Cytopathology ☐ Haematology ☐ HIV ☐ Microbiology ☐ TB ☐
4		PLACE BARCODE HERE		Chemical Pathology ☐ Cytopathology ☐ Haematology ☐ HIV ☐ Microbiology ☐ TB ☐	Chemical Pathology ☐ Cytopathology ☐ Haematology ☐ HIV ☐ Microbiology ☐ TB ☐
5		PLACE BARCODE HERE		Chemical Pathology ☐ Cytopathology ☐ Haematology ☐ HIV ☐ Microbiology ☐ TB ☐	Chemical Pathology ☐ Cytopathology ☐ Haematology ☐ HIV ☐ Microbiology ☐ TB ☐
6		PLACE BARCODE HERE		Chemical Pathology ☐ Cytopathology ☐ Haematology ☐ HIV ☐ Microbiology ☐ TB ☐	Chemical Pathology ☐ Cytopathology ☐ Haematology ☐ HIV ☐ Microbiology ☐ TB ☐
7		PLACE BARCODE HERE		Chemical Pathology ☐ Cytopathology ☐ Haematology ☐ HIV ☐ Microbiology ☐ TB ☐	Chemical Pathology ☐ Cytopathology ☐ Haematology ☐ HIV ☐ Microbiology ☐ TB ☐
8		PLACE BARCODE HERE		Chemical Pathology ☐ Cytopathology ☐ Haematology ☐ HIV ☐ Microbiology ☐ TB ☐	Chemical Pathology ☐ Cytopathology ☐ Haematology ☐ HIV ☐ Microbiology ☐ TB ☐

Workshop process-Facilitator input

- Identify each image and indicate which component is illustrated:
  N4 Facility Specimen Register.

slide 24

Rollout-approach for the PHC Laboratory Toolkit

- It is anticipated that orientation to the use of this PHC toolkit will be provided in a cascade training approach jointly by local NHLS laboratory staff and the Regional training centers (RTCs) to health facility and laboratory staff
- This toolkit has been designed to provide the facility manager with guidance to manage and monitor consistent availability of appropriate laboratory services

Workshop process- Facilitator input

- Take the participants through the intended purpose and users of the PHC Laboratory toolkit.
- Describe cascaded training – from national to provincial and how the provincial training will cascade to districts and ultimately health facilities.
- Ask the master trainers what their roles will be to cascade this training.

SECTION **ONE**

slide **25**

Facility level: Monitoring
Ideal clinic sub component 14

National Core Standards	Component	Sub component	ELEMENTS			Weight	MM	Level of responsibility	Check list	Performance
DOMAIN 3: CLINICAL SUPPORT SERVICES	3. Pharmaceuticals and Laboratory Services	**14. Management of laboratory services:** Monitor consistent availability and use of laboratory services								
			106	Primary Health Care Laboratory Handbook is available		E	🕮	NDoH		
			107	Required functional diagnostic equipment and concurrent consumables for point of care testing are available		E	😐	HF	Y	
			108	Required specimen collection materials and stationery are available		E	😐	HF	Y	
			109	Specimens are collected, packaged, stored and prepared for transportation according to the Primary Health Care Laboratory Handbook		E	😐	HF	Y	
			110	Laboratory results are received from the laboratory within the specified turnaround times		E	🕮	HF	Y	

Workshop process-Facilitator input

- Facility staff will conduct the monitoring of the Clinic-Laboratory Interface.
- Take the participants through each element that will be monitored for sub-component 14.
- These elements form part of the laboratory services on the ideal clinic dashboard.
- Use the key on the next slide to read and interpret the weight, measures, level of responsibility and checklists (where available).

slide 26

Facility level: Monitoring

Key	Method of measurement (MM)
🕮	a) Check applicable documents e.g. policies, guidelines, standard operating procedures, data, etc.
?	b) Ask staff members and/or clients for their views or level of understanding
😐	c) Objective observations and/or conclusion
🤏	d) Test the functionality of equipment/systems

Key	Description
NDoH	national Department of Health
P	Province
D	District
HF	Health facility

Key	Description
V	Vital
E	Essential
I	Important

Workshop process-Facilitator input

- Key to read the facility-level monitoring tool.

SECTION **ONE**

slide **27**

National level: Monitoring parameters

#	Item	Target	Actual	Units	Responsibility	Data Source
1	Proportion of samples rejected within the laboratory (%)	<=5%		%	NHLS	CDW
2	Proportion of test requests that comply with the listed tests in the Essential Lab List	>85%		%	NHLS	CDW
3	Total turnaround times of results					
	a. Chemistry	<= 3 days		Days	NDOH & NHLS	Facility audit
	b. Haematology	<= 3 days		Days	NDOH & NHLS	Facility audit
	c HIV Tests	<= 3 days		Days	NDOH & NHLS	Facility audit
	d. TB Tests (Xpert MTB/RIF Only)	<= 3 days		Days	NDOH & NHLS	Facility audit
4	Proportion of missed diagnostic opportunities due to unavailability of specimen collection materials	<5%		%	NDOH	Facility audit
5	Proportion of request forms submitted without the mandatory information listed in the PHC Laboratory Handbook (excluding the National ID if not yet implemented)	<5%		%	NHLS	CDW

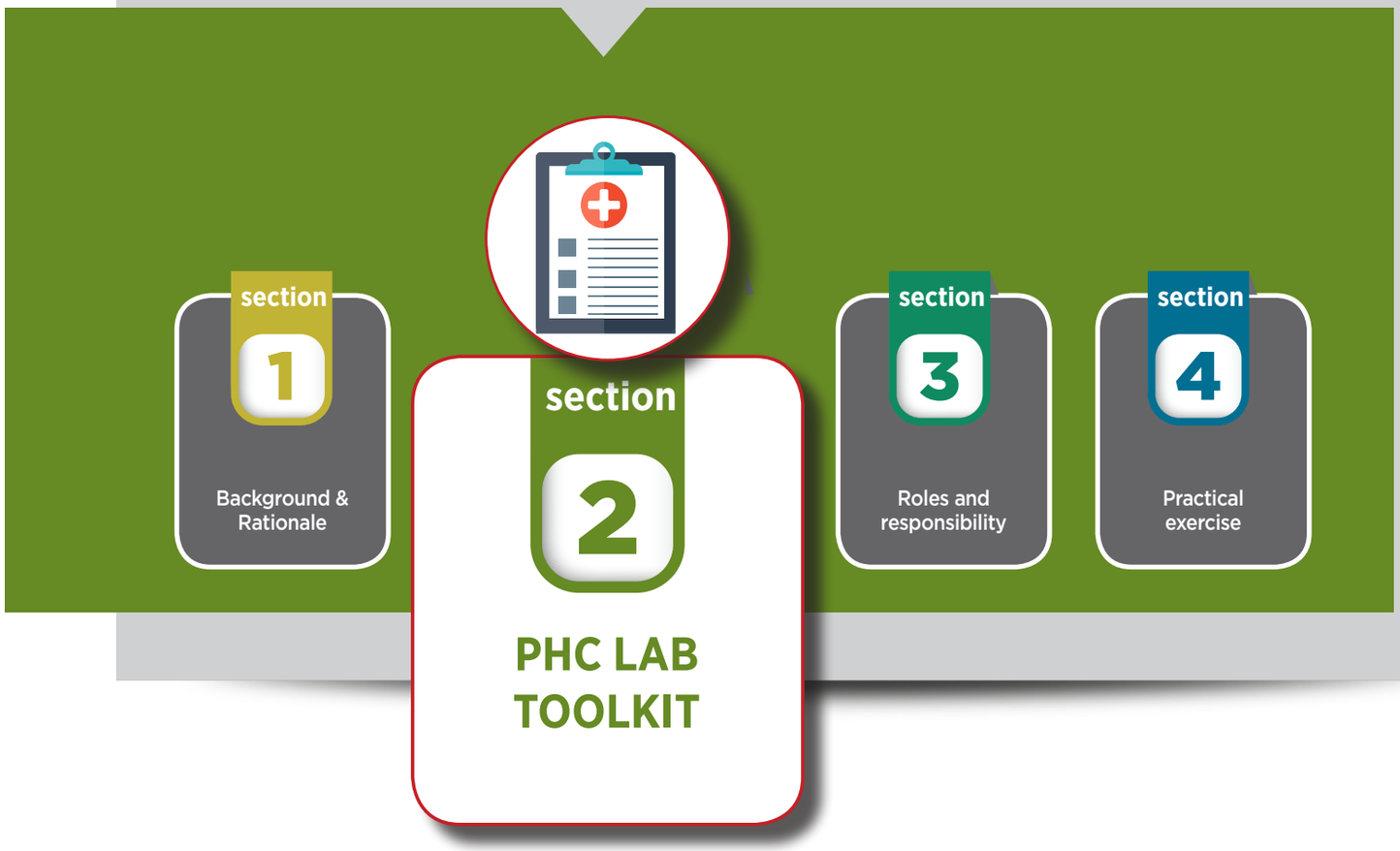
Workshop process-Facilitator input

- Take participants through each indicator that will be used by the NDOH/NHLS to monitor the implementation of the PHC Laboratory Toolkit at the national level.
- Identify in particular, the indicators that will require a facility audit.
- Ask them how they will measure the indicators assigned to the NDOH such as turn-around-times (TAT) and missed diagnostic opportunities.

Background and Rationale for the development of the PHC Laboratory Toolkit

SECTION TWO

PRIMARY HEALTH CARE (PHC) LABORATORY TOOLKIT



SECTION **TWO**

PRIMARY HEALTH CARE (PHC) LABORATORY TOOLKIT

time
2.5 *hours*

Session Outcomes

By the end of Session 2 you will be able to:

- Describe the step-by-step process as outlined in the PHC Laboratory Handbook
- Highlight new or amended processes, procedures or practices.
- Explain impacts on PHC service delivery of pre- and post-analytical errors.

session

FORMAT

- PHC Laboratory Handbook overview
- Understanding the PHC Laboratory Handbook in a patient-centric PHC service
- PHC Laboratory Handbook Step by Step Guide Section 1 – 8
  - **Classroom activity Section 1:** Complete the Request Form - 20-30 minutes in total
  - Group work exercise 10-15 minutes
  - Feedback and Debrief 10-15 minutes
- **Classroom activity Section 2:** Specimen Collection - 20-30 minutes in total
  - Group work exercise 10-15 minutes
  - Feedback and Debrief 10-15 minutes
- Principles, procedures and processes
- Implementation guidelines

session

RESOURCES

- PowerPoint Slides
- Facilitator Guide
- Classroom activities:

  Section 1: Complete the Request Form-No additional resources required

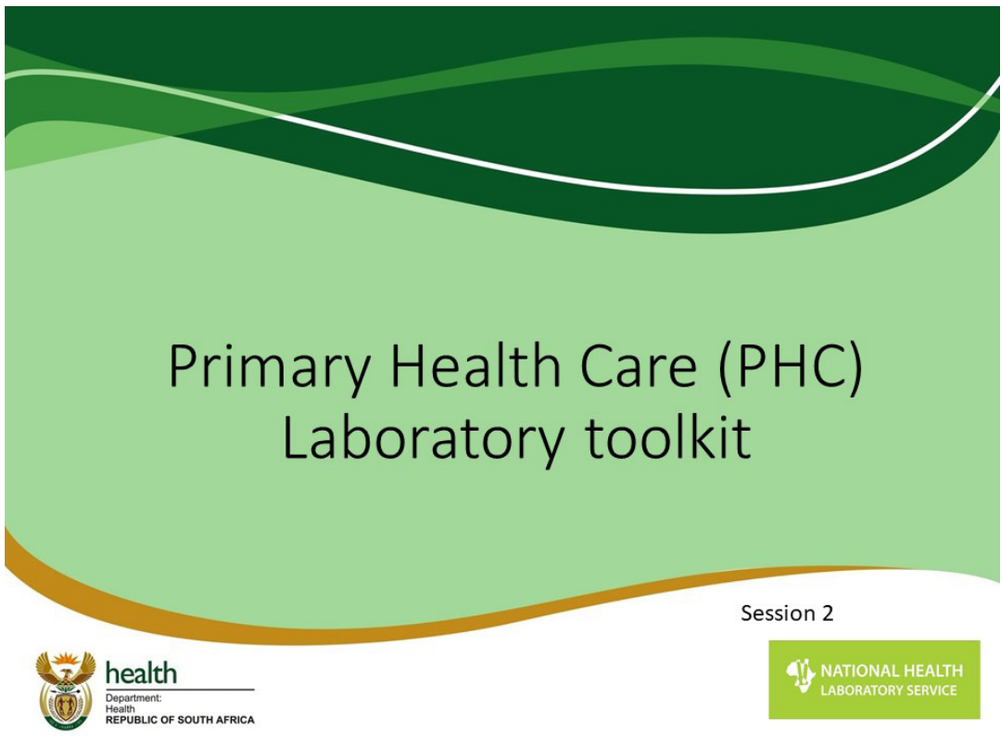
  Specimen collection –No additional resources required

Pre-Reading

As indicated for Session 1

SECTION **TWO**

slide **1**



Workshop process- Facilitator input

- While session 1 established a context for today's workshop explain to participants that session 2 will focus on the PHC Laboratory Toolkit.

slide 2

Session 2 Objectives

- By the end of Session 2 you will be able to:
  - Describe the step-by-step process as outlined in the PHC Laboratory Handbook
  - Highlight new or amended processes, procedures or practices.
  - Explain impacts on PHC service delivery of pre and post-analytical errors.

Workshop process-Facilitator input

- Take participants through the objectives for session 2.

SECTION **TWO**

slide 3

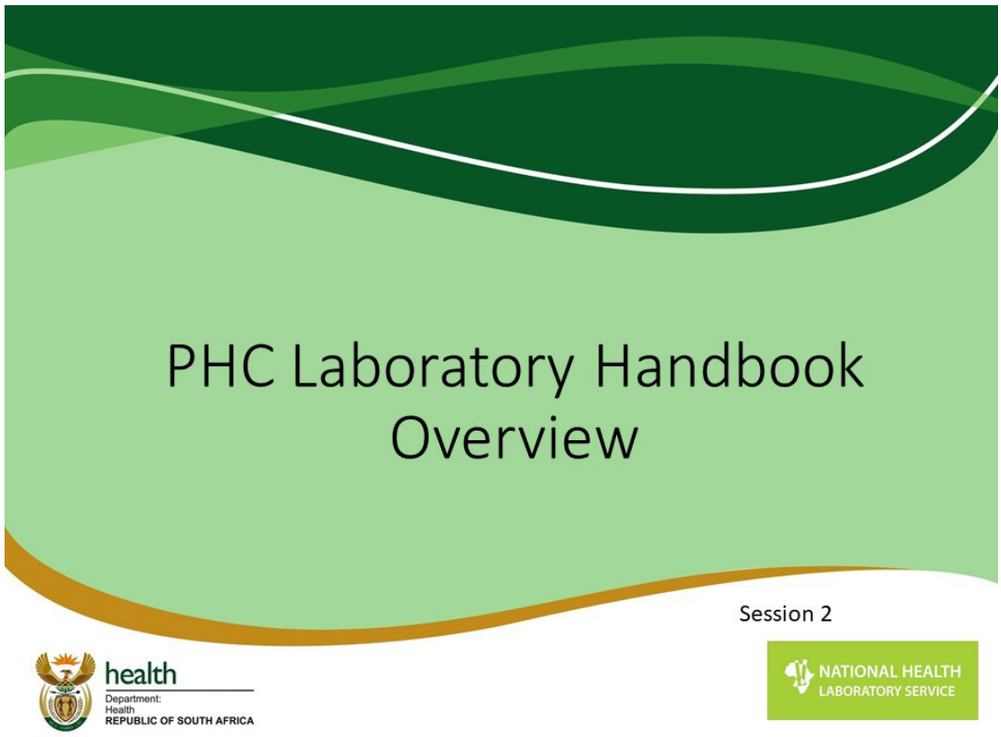
Session format

- PHC Laboratory Handbook overview
  - Understanding the PHC Laboratory Handbook in a patient-centric PHC service
- PHC Laboratory Handbook Step by Step Guide Section 1 - 8
  - Principles, procedures and processes;
  - Implementation guidelines

Workshop process-Facilitator input

- Take participants through the format of session 2.

slide
4



SECTION **TWO**

slide **5**

Placing laboratory services within a patient-centric PHC health service

Workshop process- Facilitator input

- Explain to participants that the PHC Laboratory Toolkit is a guide on how best to use the laboratory as a component of the integrated healthcare services.
- Emphasise that integrated approach for clinical guidelines to identify the appropriate laboratory tests that need to be performed using a patient-focused consultation and management approach.
- Point out that the diagnosis step is part of the patient centric service that includes assessment, examination, diagnosis and management.
- This enhances a rational application of the selection of appropriate tests from the PHC Essential Laboratory List (ELL).
- The ELL lists all the tests that can be requested by a PHC facility based on the defined package of services.

slide 6

PHC Laboratory Handbook

The handbook is a tool that aims to improve the clinic-laboratory interface

The PHC Laboratory handbook and the NHLS national laboratory handbook

- The PHC laboratory handbook does not replace the NHLS national laboratory handbook

PHC laboratory handbook aims to:

- Provide guidance for the selection of appropriate laboratory tests, specimen collection and preservation, storage, recording and tracing of courier collections.
- Define available platforms to obtain lab results

PHC laboratory handbook helps to prevent or minimise:

- Incorrect test selection
- Incomplete/ poorly completed request forms
- Unlabelled and leaking specimens
- Contaminated / aseptically collected specimens
- Unnecessary tests duplications
- Tracing and retrieval of results

Workshop process-Facilitator input

- Explain that there are two laboratory handbooks; note the differences between the two.
- The PHC Laboratory Handbook focuses on the primary healthcare services, using an integrated approach. This handbook is based on the defined PHC package of services.
- The National Laboratory Handbook is designed for all levels of care from primary healthcare services to national tertiary centres. This handbook details laboratory tests over and above what is listed in the PHC ELL. Note that the intention is not for one to replace the other.

The PHC Laboratory Handbook aims to:

- Strengthen standardised processes that will harmonise the interaction between health facilities and the laboratory service;
- Bring closer cooperation between facility managers and their local laboratory managers to ensure optimal quality health services;
- Prevent or minimise pre and post analytical errors. Remind participants of the exercise done in session 1.

SECTION **TWO**

slide **7**

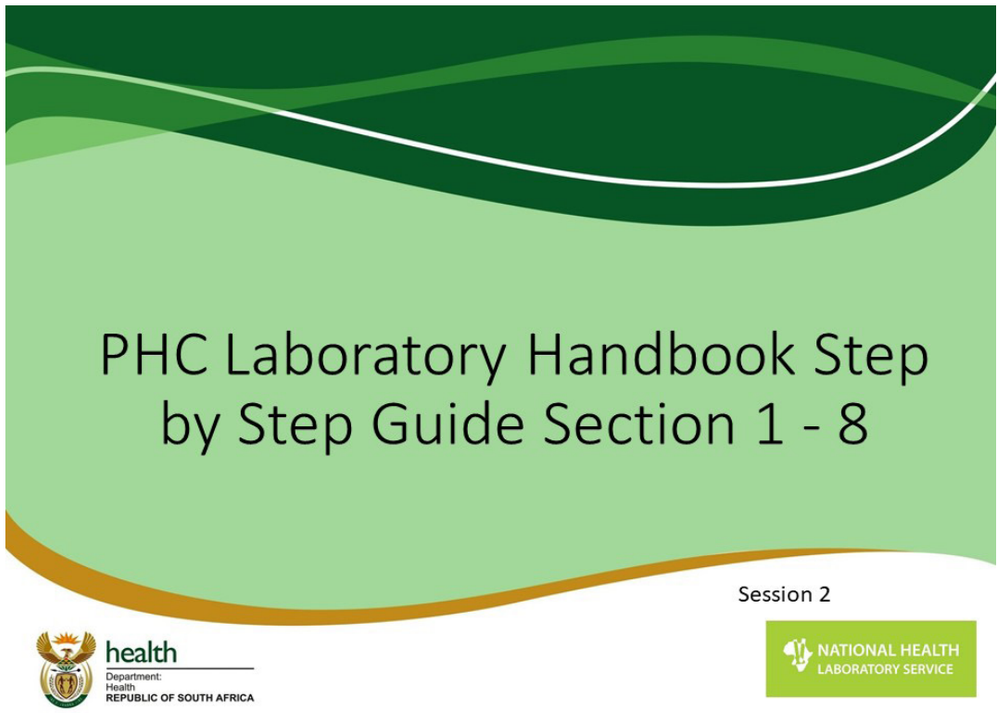
Overview of the PHC Laboratory handbook

The handbook consists of eight (8) sections
Each section describes the steps of each of the core elements

Workshop process-Facilitator input

- Point out that the PHC Laboratory Handbook is structured as a step-by-step guide
- This slide aims to provide an overview of the step-by-step process that reflects the clinic-laboratory interface
- Note that the PHC Laboratory Toolkit has been developed to enhance the appropriate use of the diagnostic laboratory services as part of an Integrated Clinical Services Management (ICSM) approach.

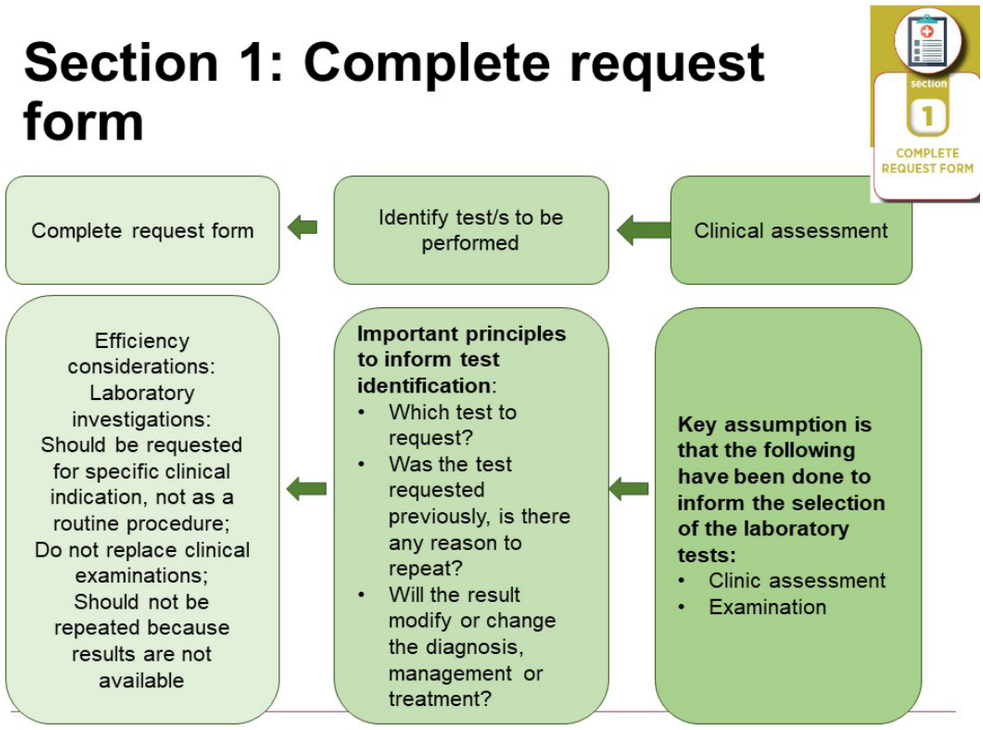
slide
8



SECTION TWO

slide 9

Section 1: Complete request form



Workshop process-Facilitator input

- Explain to participants that the remainder of Session 2 will follow the sections in the PHC Laboratory Handbook (1-8).
- Section 1 will focus on completing the request form.
- The slide illustrates the process flow
- Point out the key assumptions that should precede a test request.
- Highlight the important principles that inform test identification.
- Take a moment to discuss with participants the efficiency considerations for completing the request form.

slide **10**

Patient information

- Patient name and surname, gender, age and date of birth, folder, Health Patient Registration System (HPRS) and identification (ID) number/passport number

Why? To ensure that the laboratory data is matched to the correct patient and that appropriate age and gender adjusted reference intervals are supplied.

Facility information

- Facility name
- Facility code: Laboratory Information System facility location code if known
- Service point: a specific location within the facility e.g. MOU or adherence clubs

Why? To ensure that the laboratory results are sent to the appropriate health facility.

Collection date and time

- Date and time of collection

Why? To ensure laboratory can determine viability of specimen for processing.

Healthcare worker information

- Full name, HPCSA or SANC number and contact details

Why? To ensure that the laboratory can contact the healthcare worker (HCW) if the need arises.

Phlebotomist's information (where there is a phlebotomy service)

- Name of the person collecting the specimens

Why? Information is required should the person collecting the specimens not be the same as requesting healthcare worker.

Tests requested

- Mark appropriate tests as indicated by clinical guidelines from the list of tests in the ELL

Why? To ensure each specimen is correctly processed only for tests requested.

Concise description of the clinical problem/diagnosis

Why? To assist in the extent of specimen processing and results interpretation.

Comprehensive Care, Management and Treatment of HIV and AIDS requests

- For all patients (irrespective of HIV status) please tick yes below the Comprehensive Care, Management and Treatment of HIV and AIDS (CCMT) box next to the NHLS logo on the top left of the **N1: Request Form** and **N2: Cytology Request Form**.

Why? This is for billing purposes, to ensure that laboratory tests are correctly allocated to conditional grant account/s in your province.

Workshop process-Facilitator input

- The next few slides focus on the completion on the request forms.
- Take participants through the eight key sections of the request form where specific information in required for N1 and N2 forms.
- Ask participants to have a look at the N1 form in the PHC Laboratory Toolkit.
- Take them through the different sections and ask them to identify where this information must be provided on the form.

SECTION **TWO**

slide **11**

Mandatory Information to be provided

The following information is mandatory for data capturing, processing and reporting of results on laboratory specimens:

- Facility name
- Patient's folder or HPRS number
- Patient's national ID number or passport number (if available)
- Patient's name
- Patient's surname
- Patient's date of birth
- Patient's gender
- Healthcare worker's name
- Healthcare worker's HPCSA or SANC number
- Healthcare worker's signature
- Collection date

Workshop process-Facilitator input

- Point the mandatory fields that need to be provided.
- Pause for a moment and get participants to think about the potential consequences on not providing information related to these fields.
- The N1 and N2 request forms represent the communication vehicle between the health facility and the laboratory.

slide 12

Classroom exercise: Section 1 Complete the Request Form

In your group

Use the PHC Lab Handbook – go to Section 1: Complete the Request Form. Have a look at the two forms provided- N1 and N2.

1. With reference to the N1 Form, what do you notice about:
   a) The language/terminology;
   b) The tests listed;
   c) Data elements related to HIV and TB;
   d) The Bar codes
2. Comparing the N1 and N2:
   • What is the difference between the two forms?
3. What are the potential benefits or improvements that can be derived from the use of these two forms?

Workshop process- Classroom exercise

Purpose:

- This exercise aims to:
- Give participants an opportunity to examine the N1 and N2 request forms more closely.

Process:

- Divide participants into small groups of about 6-8
- Ask them to:

  Find the forms in the PHC Handbook

  Discuss the 3 questions noting that question 1 four aspects for about 15 minutes

Debrief:

- Take feedback on the responses from different groups
- Keep the pace moving by getting different response to different questions so that there is no repetition
- Remember the purpose of the exercise is to allow participants to become familiar with the forms and the data/information elements

SECTION **TWO**

The next two slides reflect expected responses

slide 13

Classroom exercise- expected responses Section 1 Complete the Request Form

1. a)Terminology used is facility based and not hospital based, examples:
   - Folder number instead of hospital number
   - Facility name instead of clinic name

   b) The tests listed reflect the Essential Laboratory List (ELL). The ELL:
   - identifies all laboratory tests that can be requested by PHC facilities (with and without a doctor).
   - details estimated turnaround times, specimen types, specimen collection tubes, specimen storage conditions and special instructions for each test.

   c) There are additional data elements to be captured for HIV and TB

   d) The barcodes will now be used in the facility for recording in the facility specimen register

slide 14

Classroom exercise- expected responses Section 1 Complete the Request Form

2. The N1 form list all the routine tests from the ELL, while N2 form is used specifically for Cytology

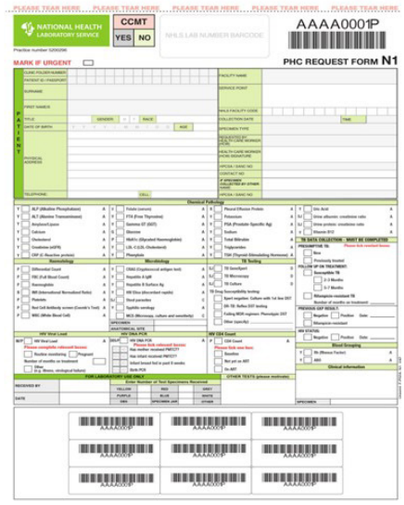
3. The potential benefits include:
   - Streamlining the interface between examination and diagnostic will enable better patient management;
   - Ideal clinic goal
   - Integrated

Workshop process-Facilitator input

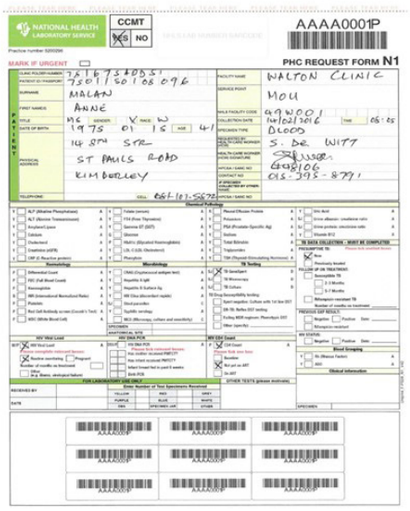
- Please note that the next two slides should be done very briefly if needed since the information has already been covered in the previous exercise.

slide 15

N1 PHC request form



PHC Request Form (N1)



Example of a completed N1 request form: Routine CCMT request

Workshop process-Facilitator input

- The slide illustrates two images: a blank N1 PHC request form and an example of a completed form.
- Point out that the tests listed reflect the PHC ELL.

SECTION **TWO**

slide **16**

N2 Cytology request form

N2 Cytology Request Form: Request Form

Workshop process-Facilitator input

- The slide illustrate the N2 Cytology request form used for pap smears and fine-needle aspirates.
- Refer participants to section B on the form where specific information is required for gynaecological requests and Section C for general cytology requests.

slide 17

Section 2: Specimen Collection

Efficiency considerations:
NOTE
All specimen collection procedure have special precautions that are critical to avoid improper collection

Key Resources to guide specimen collection and handling
- PHC Essential Laboratory List (ELL)
- Key to specimen handling
- Step-by-step procedures outlined in the PHC Lab Handbook

Important principles guide specimen collection:
- Verify the identity of the patient and make sure that this is correct
- Follow guidelines for specimen collection
- Check specimen container/s for expiry dates where available

Workshop processes-Facilitator Input

- Section 2 focuses on Specimen collection.
- Take delegates through the key principles of specimen collection.
- Highlight the key resources that will be needed to guide specimen collection
- Note the special precautions.

SECTION **TWO**

slide **18**

PHC Essential Laboratory List (ELL)

Key:

PHC	This test may be requested by all healthcare professional, i.e. nurse and doctor
PHC with Doctor (Dr)	This test may only be requested by a doctor

Test	Category
Chemical Pathology	
ALP (Alkaline Phosphatase)	PHC with Dr
ALT (Alanine Transaminase)	PHC
Amylase/Lipase	PHC with Dr
Calcium (serum)	PHC with Dr
Cholesterol	PHC
Creatinine (eGFR) (serum)	PHC
CRP (C-reactive protein)	PHC with Dr
Folate (serum)	PHC with Dr
FT4 (Free Thyroxine 4)	PHC with Dr
Gamma GT (GGT) (Serum)	PHC with Dr
Glucose	PHC
HbA1c (Glycated Haemoglobin)	PHC
LDL-Cholesterol (LDL-C)	PHC with Dr
Phenytoin	PHC with Dr
Pleural effusion Protein	PHC with Dr
Potassium (serum)	PHC
Prostate-Specific Ag (PSA)	PHC with Dr
Sodium (serum)	PHC with Dr
Total Bilirubin	PHC with Dr
Triglycerides	PHC
TSH (Thyroid-stimulating hormone)	PHC
Uric Acid (serum)	PHC
Urine albumin: creatinine ratio	PHC with Dr
Urine protein: creatinine ratio	PHC with Dr
Vitamin B12	PHC with Dr

Test	Category	Estimated TAT (Hrs)*	Specimen Type	Tube Type	Special Instructions	Specimen Storage	Proviso
ABO (Blood grouping)	PHC	24	3 mL clotted blood	Yellow		A	
ALP (Alkaline Phosphatase)	PHC with Dr	24	3 mL clotted blood	Yellow		A	
ALT(Alanine Transaminase)	PHC	24	3 mL clotted blood	Yellow		A	
Amylase/Lipase	PHC with Dr	24-48	5 mL clotted blood	Yellow		A	
Calcium (serum)	PHC with Dr	24	5 mL clotted blood	Yellow	Avoid stasis/ prolonged tourniquet application.	A	
CD4 Count	PHC	24	4 mL EDTA blood	Purple	Do not store in refrigerator.	A	
Cholesterol	PHC	24-48	5 mL clotted blood	Yellow	Patient should be fasting. Refer to section 2.13.1 (Cholesterol and lipogram)	A	
CRAG (Cryptococcal Antigen test)	PHC with Dr	24	5 ml EDTA Blood	Purple		A	Only performed where CD4 <= 100
Creatinine (eGFR) (serum)	PHC	24	3 mL clotted blood	Yellow		A	
CRP (C-reactive protein)	PHC with Dr	24	5 mL clotted blood	Yellow		A	
Cytology for aspirates including lymph nodes	PHC with Dr				Refer to NHLS National Laboratory Handbook		
Differential count	PHC with Dr	24	5 ml EDTA Blood	Purple		A	
Folate (serum)	PHC with Dr	24-48	4 mL EDTA blood	Purple	RBC folate is a better indicator of tissue stores than serum folate.	A	

Workshop processes-Facilitator Input

- The PHC ELL is an important resource for specimen collection.
- The ELL:

  Identifies all laboratory tests that can be requested by PHC facilities (with and without a doctor).

  Details estimated turnaround times, specimen types, specimen collection tubes, specimen storage conditions and special instructions for each test.
- Ask participants to find the ELL in the PHC Laboratory Handbook, point out that there is a summary list and a detailed list.
- Highlight that the detailed list will guide specimen collection procedures.

slide 19

Key to specimen handling

ELL KEY	SAMPLE HANDLING	STORAGE CONDITIONS
A	• Specimens must be kept away from direct sunlight • Specimens should not be exposed to dramatic temperature fluctuations	• Specimens can be stored for up to 24 hours at room temperature (20-25°C) • Where room temperature exceeds 25°C, specimens must be stored in a fridge (2-5°C) to preserve specimen integrity)
B	• When the smear has been fixed, insert into a slide holder and store in specimen storage bag • Do not use an envelope	• Store at room temperature (20-25°C) until collection
C	• Collect specimens in sterile specimen jar or tubes • Where appropriate, place in the transport medium provided	• All specimens except urine can be stored up to 24 hours at room temperature (20-25°C) • Urine and stool specimens must be stored in the fridge (2-5°C)
D	• Specimens should be collected in clean leak proof containers	• Specimens can be stored up to 24 hours at room temperature (20-25°C) or up to 48 hours in a fridge (2-5°C) • Where room temperature exceeds 25°C, specimens must be stored in the fridge (2-5V) to preserve specimen integrity • Do not freeze specimen

Workshop process-Facilitator input

- Explain that the table is meant to give an overview of the conditions and duration for specimen storage.
- Point out that this should be used as a checklist to avoid sending specimens that are likely to be rejected based on noncompliance with specimen handling conditions.

SECTION **TWO**

slide **20**

Standard infection control precautions

1. Identify and assemble the individual specimen collection materials required i.e. Vacutainer, test/tube/s, sterile specimen jars etc. to perform the tests requested
2. Wash hands using soap and water or disinfectant
3. Dry hands thoroughly
4. Put on gloves
5. Follow strict aseptic technique when collecting specimens
6. Collect recommended specimen quantities for the requested test to avoid specimen rejection due to insufficient specimen

Workshop process-Facilitator input

- Delegates need to be cautious not to infect themselves during specimen collection or contaminate the environment.
- It is therefore critical to adhere to infection control precaution throughout the explained high-level processes.

slide 21

Specimen collection procedure

Venipuncture	**Blood collection**	**Neonates**
Microbiology	**Cytology**	**EID**

Workshop processes-Facilitator Input

- There are multiple specimen collection procedures.
- These have been grouped into six categories as reflected.
- Indicate that these procedures are described in detail in the PHC Laboratory Handbook

SECTION **TWO**

slide **22**

Classroom exercise 2: Section 2 Specimen Collection

In your group

- Use the PHC Lab Handbook – go to Section 2: Specimen Collection

1. Review the step-by-step procedure
2. Identify any new information, observation or insights

Workshop process- Classroom exercise

Purpose:

- This exercise aims to give participants an opportunity to explore the information contained in the PHC Handbook about specimen collection.

Process:

- Divide participants into small groups of about 6-8.
- Allocate a different specimen collection category to each group.
- Refer the groups to the PHC Laboratory Handbook ask them to review the step-by-step guide provided for their allocated specimen collection category.
- Then ask them to reflect on any new information, observation and insights.

Debrief

- Focus on the reflection, do not let each group present the step-by-step procedure.

slide 23

Section 3: Package Specimen

Label Specimen

Record test request in patient folder

Package Specimen

- Write the patients name, surname and clinic folder or HPRS number clearly using a pen or marker on each specimen
- Peel off barcode label/s from the N1/N2 request form and attach to specimen
- Place the barcode horizontally for for Vacutainer

- Place a barcode from the N1/N2 request form in the lab investigation section of the patient folder for tracking purposes
- Indicate the date of test request
- *Note how this is different from the current procedure*

- All specimens must be placed in the appropriate compartment/s of the specimen plastic bags provided
- Add the N1/N2 request form in the space provided

Workshop processes-Facilitator Input

- Section 3 focuses on Package Specimen.
- Take delegates briefly through the process from label specimen, record test request in patient folder to package specimen.

SECTION **TWO**

slide **24**

Label Specimen

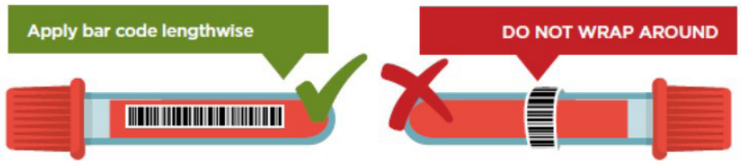


Figure 29: How to apply the request form barcode

Place the barcode horizontally on sterile specimens.

Workshop processes-Facilitator Input

- Note the requirements for specimen labelling.
- Errors made in this process result in specimens not being analysed at the laboratory.

slide
25

Record test request in patient folder

Workshop process-Facilitator input

- Ask participants to have a look at the Laboratory Result Form in the PHC Laboratory Handbook.
- Highlight in particular the new aspects related to recording the test request in the patient folder.
- Indicate that this form will be used to record laboratory results in the patient folder.

SECTION **TWO**

slide **26**

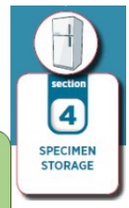
Package specimen

Workshop process-Facilitator input

- Note that all specimens must be:
- Packaged carefully to avoid breakage or leakage.
- Package the specimens with a completed request form (N1/N2) per patient.
- Indicate that each patient gets a separate plastic bag.
- The request form should never be placed inside the plastic bag with the specimen but must be placed in outside pouch of clear plastic bag.

slide 27

Section 4: Specimen Storage



Storage of Specimen

Record in the N4 facility specimen register

- Specimen Storage condition for each ELL test must be adhered to

- There are two parts to the N4 Register
- Cover Page
  - Register number
  - Start and end date and Facility name
- Register
  - For each sample enter the date, folder number and tests submitted
  - Attach the barcode label from N1/N2 request form

Note how this is different from the current procedure

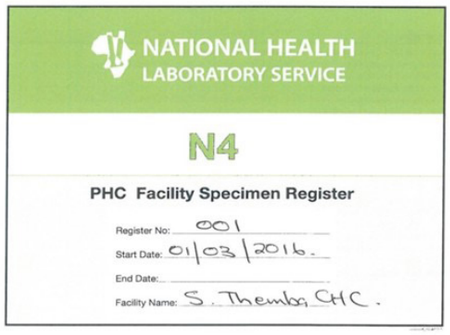
Workshop processes-Facilitator Input

- Section 4 focuses on Specimen Storage.
- Note the specimen storage conditions that must be adhered to, refer participants to the detailed PHC ELL.
- Note the two parts that need to be completed on the N4 Register.
- The next two slides provide an example of the cover page and the register.

SECTION **TWO**

slide **28**

Example of completed PHC Facility Specimen Register (N4) cover


NATIONAL HEALTH
LABORATORY SERVICE

N4

PHC Facility Specimen Register

Register No: 001
Start Date: 01/03/2016.
End Date:
Facility Name: S. Themba CHC.

Workshop processes-Facilitator Input

- An example of the cover page.
- Note information provided.

slide
29

Example of a Specimen Facility Register (N4) with patient samples captured prior to courier collection

PHC Facility Specimen Register N4

No: 0000001

Number	Date of Sample Collection	Place Request form Barcode here	Patient Folder Number	Tests Requested	Results received
1	1/03/	AAAA000P	517816	Chemical Pathology ☒ Cytopathology ☐ Haematology ☐ HIV ☐ Microbiology ☐ TB ☐	Chemical Pathology ☐ Cytopathology ☐ Haematology ☐ HIV ☐ Microbiology ☐ TB ☐
2	1/03/	AAAA000P	628500	Chemical Pathology ☐ Cytopathology ☐ Haematology ☐ HIV ☐ Microbiology ☐ TB ☐	Chemical Pathology ☐ Cytopathology ☐ Haematology ☐ HIV ☐ Microbiology ☐ TB ☐
3	1/03/	AAAA000P	789125	Chemical Pathology ☒ Cytopathology ☐ Haematology ☒ HIV ☐ Microbiology ☒ TB ☐	Chemical Pathology ☐ Cytopathology ☐ Haematology ☐ HIV ☐ Microbiology ☐ TB ☐
4	1/03/	AAAA000P	487891	Chemical Pathology ☐ Cytopathology ☐ Haematology ☐ HIV ☐ Microbiology ☒ TB ☐	Chemical Pathology ☐ Cytopathology ☐ Haematology ☐ HIV ☐ Microbiology ☐ TB ☐
5	1/03/	AAAA000P	32546	Chemical Pathology ☒ Cytopathology ☐ Haematology ☐ HIV ☐ Microbiology ☒ TB ☐	Chemical Pathology ☐ Cytopathology ☐ Haematology ☐ HIV ☐ Microbiology ☐ TB ☐

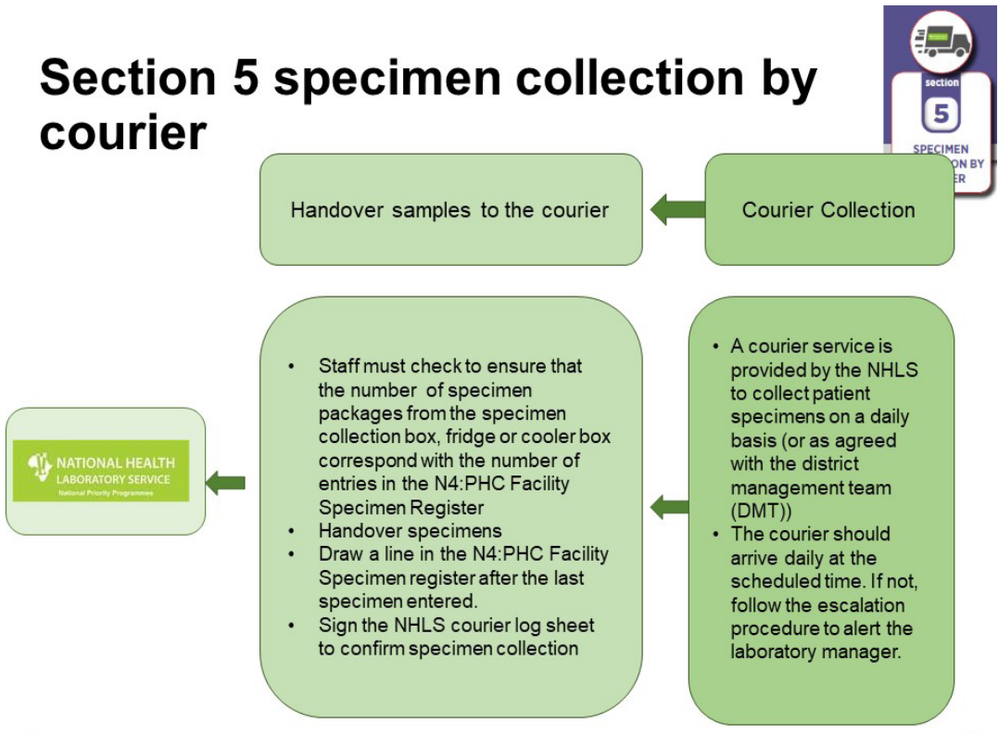
Workshop process-Facilitator input

- Note that this is what the register looks like prior to courier collection.

SECTION TWO

slide 30

Section 5 specimen collection by courier

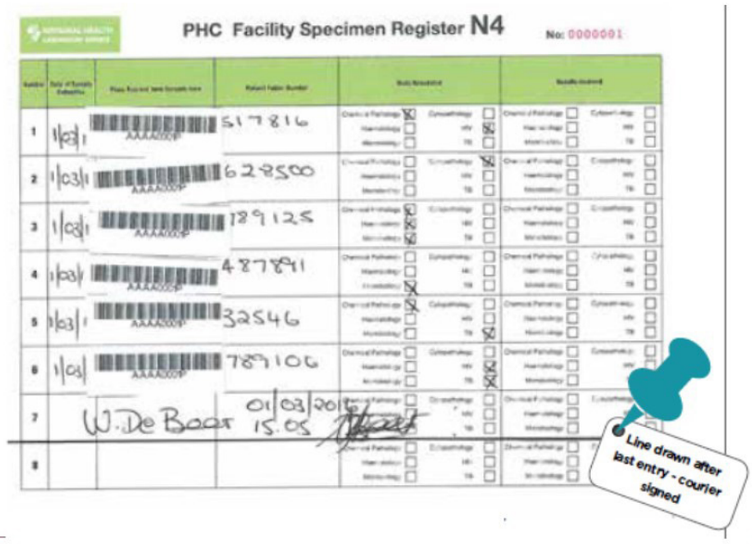


Workshop process-Facilitator input

- Section 5 focuses on Specimen collection by courier.
- Take participants briefly thorough the two steps.

slide
31

Example of completed N4 register after courier collection



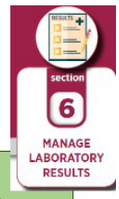
Workshop processes-Facilitator Input

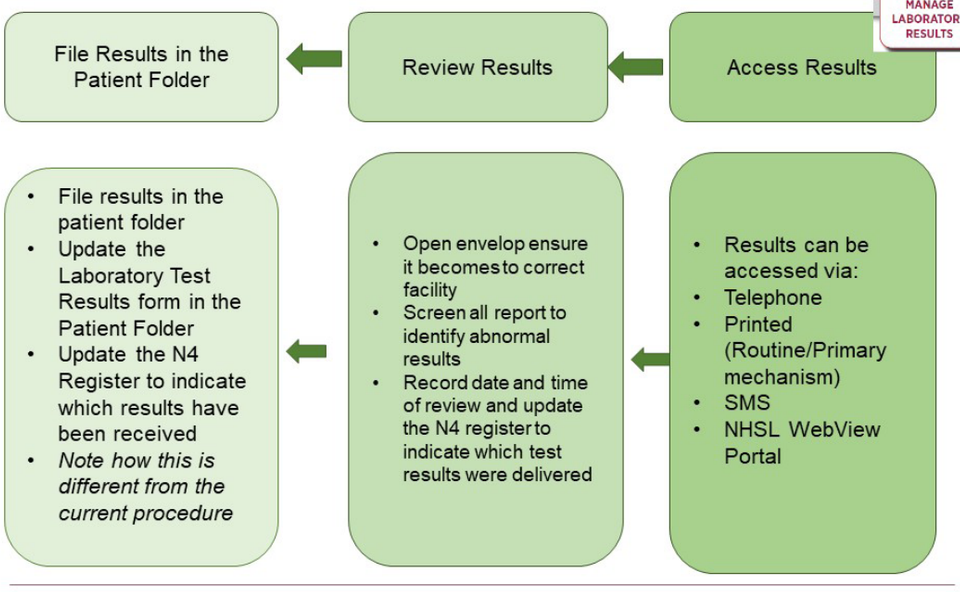
- Note the steps involved in the handover of samples to the courier.
- Note in particular the recording by the courier confirming receipt of samples recorded in the register.

SECTION TWO

slide 32

Section 6: Manage laboratory results



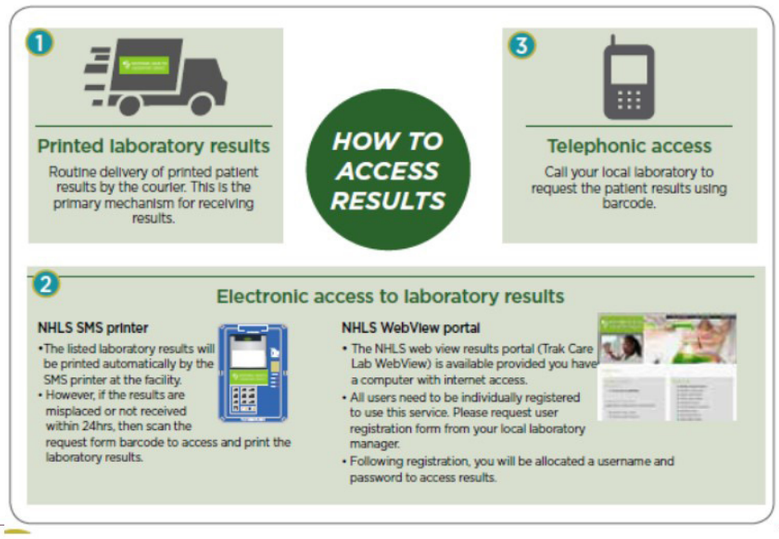


Workshop processes-Facilitator Input

- Section 6 focuses on Manage laboratory results.
- This section describes various ways of obtaining laboratory results.
- When results are received, a staff member will review the delivered reports and identify abnormal results.
- File printed results in the patient folder.

slide 33

Results access methods

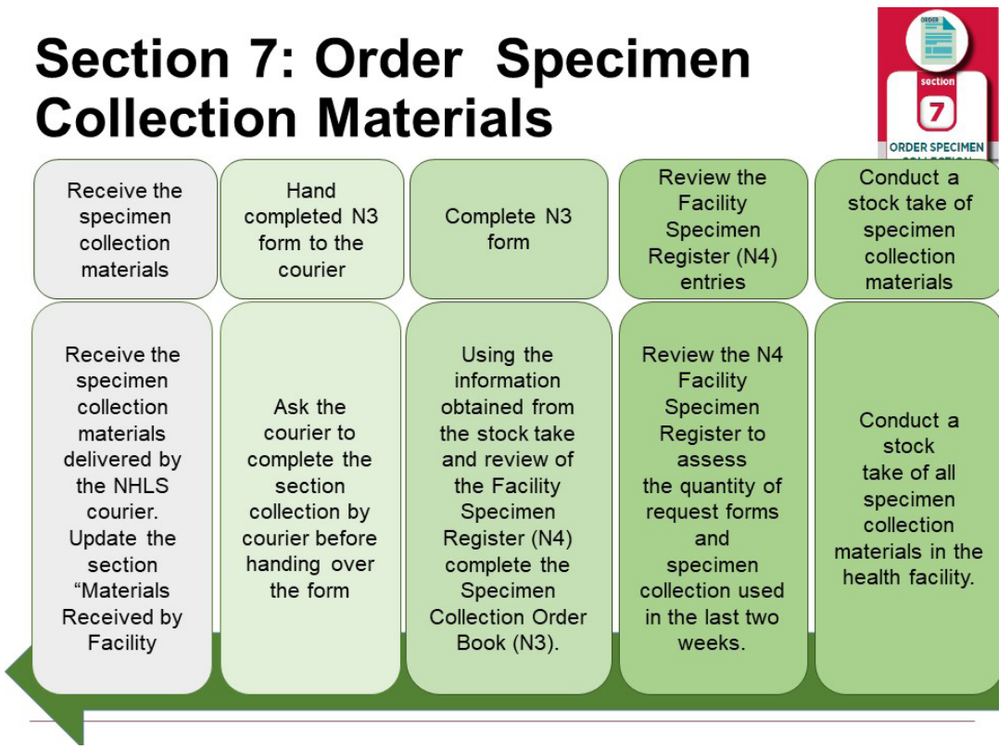


Workshop process-Facilitator input

- This slide is a visual illustration of different ways to access results.

SECTION TWO

slide 34

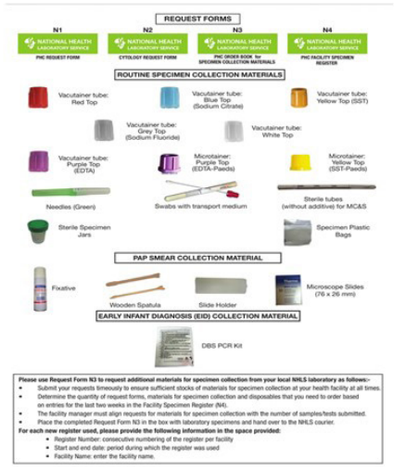


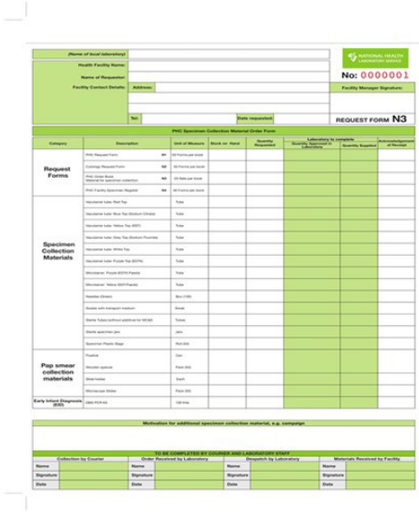
Workshop process-Facilitator input

- Section 7 focuses on Ordering Specimen Collection Materials.
- Take participants through the process from conducting a stock take to receiving collection materials.
- Current stock levels and anticipated usage must inform ordering of specimen materials.
- Ask participants how this differs from current practice a note the importance of standardisation.
- Indicate to participants that there is separate process within the laboratory for dispatching specimen collection materials that is detailed in the PHC Laboratory Handbook.

slide
35

PHC Order Book: Materials for Specimen Collection (N3)





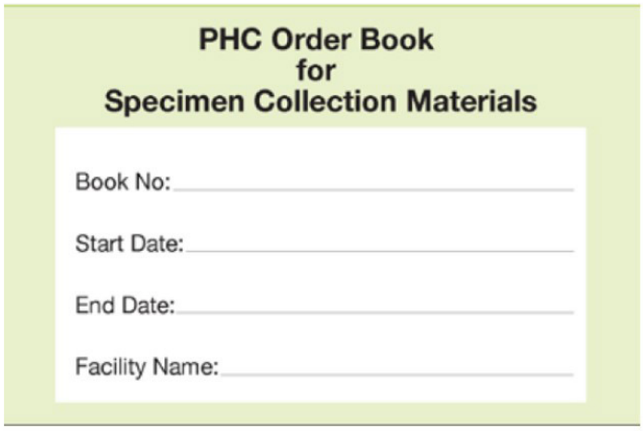
Workshop processes-Facilitator Input

- Refer participants through the various specimen collection materials, and request forms that are available on the N3 form.
- Ask participants to look at the information that needs to be completed on the N3 form.
- Note the unit of measure for each item.

SECTION **TWO**

slide **36**

PHC Order Book for Specimen Collection (N3) Cover



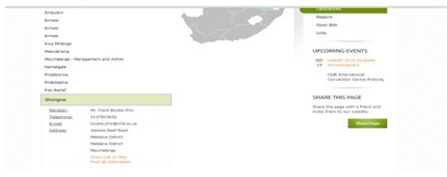
Workshop processes-Facilitator Input

- Refer participants to the information required on the N3 cover that is similar to the N4 example shown earlier.

slide 37

Section 8: Access to additional information

- This section provides resources for additional information and contact details about laboratory services:-
- Using the NHLS website to obtain details about national laboratory handbook (for all levels of care) and laboratory contact details.



Workshop process-Facilitator input

- Section 8 focuses on Access to additional information.
- Ref participants to the NHLS website for additional information.

SECTION THREE

ROLES AND RESPONSIBILITY

SECTION **THREE**

ROLES AND RESPONSIBILITY

time
45
hours

Session Outcomes

By the end of Session 3 you will be able to:

- Describe the roles and responsibilities for the Clinic Laboratory Interface.
- Outline the escalation procedure.
- Describe the joint responsibility to maintain open communication channels to resolve issues without the need for escalation.

session

FORMAT

- Classroom exercise
  - Classroom activity Roles and Responsibilities: Match responsibilities with appropriate Role-players using cards provided - 25-30 minutes in total
  - Group work exercise 15 minutes
  - Feedback and Debrief 10-15 minutes
- Review of roles and responsibilities
- Escalation procedure
- Open communication channels

session

RESOURCES

- PowerPoint Slides
- Facilitator Guide
- Cards for exercise on Roles and Responsibilities
- Answer Sheet

Pre-Reading

Pre-reading for this session includes the following documents that are both available from www.idealclinic.org.za/docs: -

(1) Ideal clinic manual (follow the Ideal Clinic Framework link)

(2) Primary Health Care Laboratory Handbook available (follow the Manuals and Handbooks link)

SECTION **THREE**

slide **1**

Workshop process

Please go through the pre-reading prior to presenting this session. They will provide you with a background to the materials covered in this session.

slide 2

Session Objectives

By the end of the session you will be able to:

- Describe the roles and responsibilities for the Clinic Laboratory Interface.
- Outline the escalation procedure.
- Describe the joint responsibility to maintain open communication channels to resolve issues without the need for escalation.

Workshop process-Facilitator input

- Take participants through the session objectives.
- Note that this session focuses on roles, responsibilities and relationships that underpin the step-by-step processes covered in Session 2.
- The elements covered in this session can be thought of as the glue that holds the process in place.

SECTION **THREE**

slide **3**

Session format

- Classroom exercise
- Review of roles and responsibilities
- Escalation procedure
- Open communication channels

Workshop process-Facilitator input

- Take participants through the format as indicated.

slide 4

Classroom exercise: Session 3

In your group

- Review the set of cards provided
- Each card describes a responsibly of one of the key role-players involved in the Clinic-Laboratory Interface
- Allocate each card to the appropriate role-player
- The key role-players are
  - Facility Manager.
  - District Management Team
  - Area Manager (NHLS)
  - Business Manager (NHLS)
  - Laboratory Manager (NHLS)

Workshop process- Classroom exercise

Purpose:

- This exercise aims to give participants an opportunity to think about the responsibilities of the key role-players in the Clinic-Laboratory Interface.
- It is an interactive exercise that follows a very heavy content session. The intention therefore is to maintain the momentum of the workshop by keeping participants engaged.

Process:

- Divide participants into small groups of about 6-8.
- Provide each group with a set of cards. Each card describes a responsibility of one of the key role-players involved in the Clinic-Laboratory Interface.
- Ask participants to review the set of cards provided-numbered 1-14.
- Allocate each card to the appropriate role-player:

  Facility Manager.

  District Management Team

  Area Manager (NHLS)

  Business Manager (NHLS)

  Laboratory Manager (NHLS)

Debrief

- Go through the answer sheet. Ask each group to check groupings against these answers, and then to pull out any cards that did not match.
- Discuss the cards that were incorrectly matched and try to correct any misunderstandings.

SECTION **THREE**

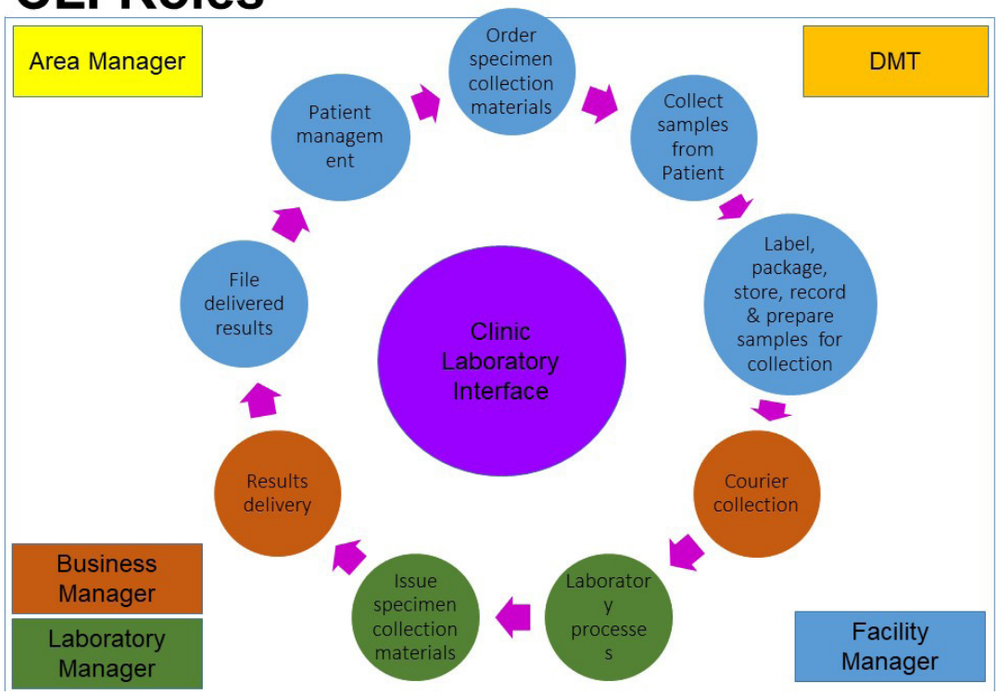
slide **5**

Workshop process-Facilitator Input

- The next six slides provide a summary of the exercise just completed by participants.
- Therefore go through them briefly, highlighting mainly the points where there was debate from the group exercise.

slide 6

CLI Roles



Workshop processes-Facilitator Input

- Walk the participants through the CLI process and indicate where each activity is taking place
- Each activity has been assigned to a role, e.g. blue activities belong to the Facility Manager.
- The NHLS courier collection for example belongs to the Business Manager as they manage laboratory services across a health district.

SECTION **THREE**

Workshop processes-Facilitator Input

- The next five slides provide a summary of the exercise just completed by participants.
- Therefore, go through them briefly.
- Highlighting mainly the points where there was debate and discuss from the group exercise.

slide **7**

Facility Manager

- To ensure that all staff members are trained and comply with the content of the PHC laboratory handbook
- To ensure regular assessment/audit compliance to processes described in the PHC laboratory handbook using sub-component 14
- To ensure the availability of specimen collection materials and request forms
- To use the mechanisms available to receive or access laboratory results, e.g. telephonic, TrakCare Webview, etc.
- To escalate laboratory services issues.
- To know the designated local NHLS laboratory
  - Location and contact details of the laboratory
  - laboratory manager's contact details
  - laboratory courier collection schedule

slide 8

District Management Team (DMT)

- Ensure that CLI is a standing agenda item for the DMT
- Review performance within the district for sub-component 14

Laboratory performance:	Health facility performance:	Review courier services arrangements:
• Turn-around times (TAT) • Availability of specimen collection materials • Adherence to agreed laboratory courier collection schedules	• Incomplete request forms • Inadequate specimen collection • Inappropriate specimen storage	• Frequency and times for sample collection per heath facility

slide 9

Laboratory Manager

- To ensure that data capturers are trained and competent capture information provided on the N1 PHC laboratory. This includes the processes to be followed for a CCMT request.
- To ensure that staff follow the appropriate processes to supply specimen collection materials using the N3 Specimen Collection Materials Order Book.
- To provide testing within the specified turn-around-times.
- Attend to laboratory services raised by the Facility Manager within two working days. Meet with the Facility Managers on a a regular basis to address issues.
- Provide each Facility Manager with the designated collection times and frequency.
- Provide access for Facility Managers to the TrakCare Lab Webview.
- Assist with laboratory results queries. This may also include referring the request for Pathologist input.

SECTION **THREE**

slide 10

Business Manager

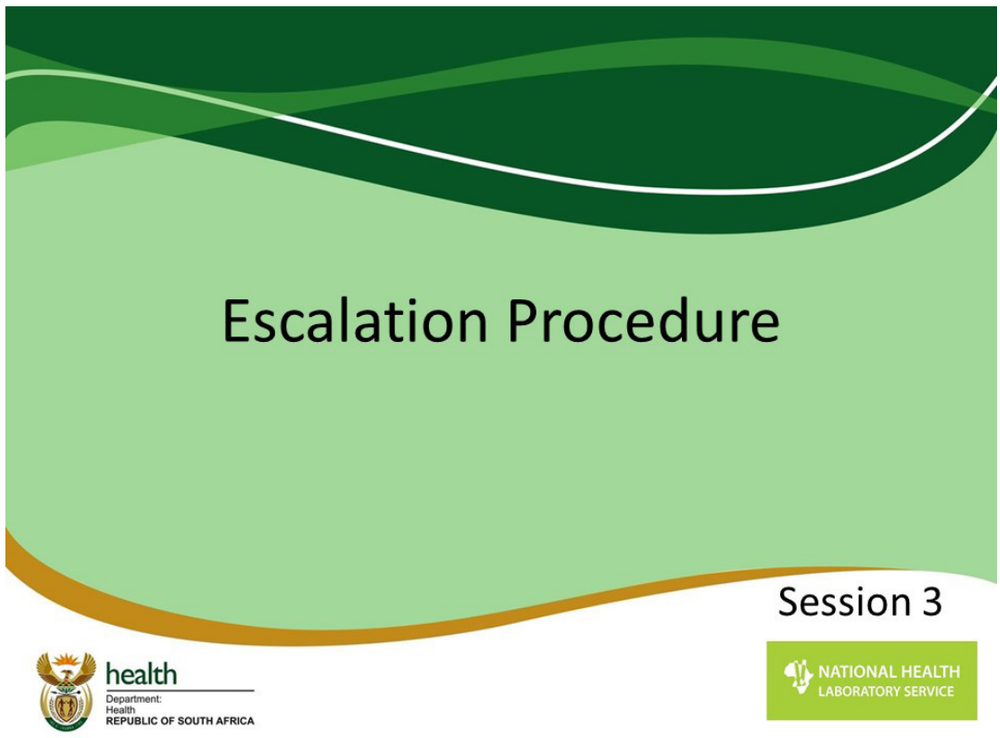
- Attend to laboratory services raised by the Facility Manager that were not addressed by the laboratory manager within four working days.
- Oversee the delivery of laboratory services ac ross a district or districts.
- Manage courier collection times and frequency across the district.
- Attend the quarterly District Health Review for the laboratory services agenda item (District Manager to ensure that CLI is a standing agenda item)

slide 11

Area Manager

- Attend to laboratory services raised by the Facility Manager that were not addressed by the Business Manager within seven working days.
- Manage the delivery of laboratory services ac ross the province.
- Attend provincial laboratory services meetings.

slide 12



Workshop process-Facilitator input

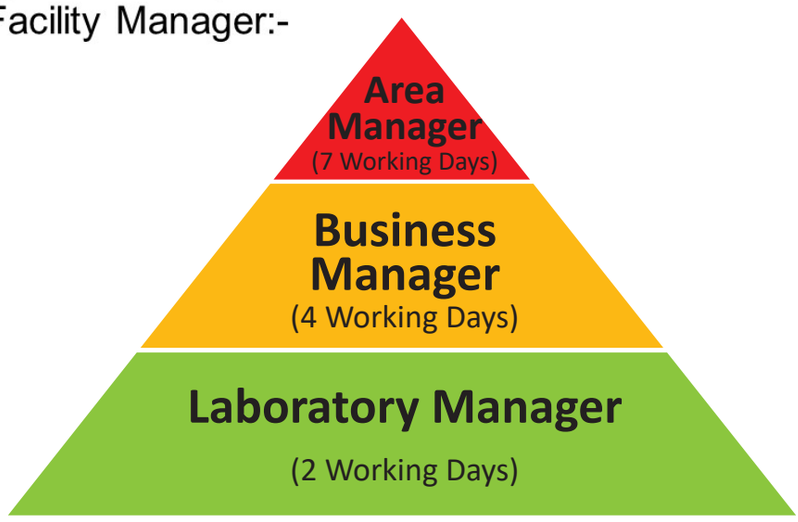
- Explain that the escalation procedure is in place to address laboratory service issues.

SECTION **THREE**

slide **13**

Escalation procedure to be followed by the Facility Manager

For any laboratory performance challenges, the following escalation procedure should be followed by the Facility Manager:-



Workshop process-Facilitator input

- Describe the escalation procedure levels 1-3 to be followed if you have a complaint about laboratory services.
- Explain to the participants, that they have access to the contact details of their local laboratory either by using the PHC Laboratory Handbook or the NHLS website.
- It is important to point out that the escalation sequence should be followed to maintain the integrity of the process
- Indicate that the facility and laboratory managers should address the majority of the issues.
- Only the few issues that require the mandate of area manager would be escalated to this level.
- Ask the delegates how many of them know who their local laboratory manager name and contact number.

slide 14

Open Communication Channels

- Through open communication channels, minor problems could be solved rapidly without the need for escalation.
- Ultimately, both managers take the responsibility to provide good quality healthcare services to their local communities.

Workshop processes-Facilitator Input

- Discuss the importance of open and regular channels of communication

SECTION **THREE**

slide **15**

Discussion

Workshop process-Facilitator input

Ask the delegates if they have any further questions.

ROLES AND RESPONSIBILITY RESOURCE

1. To ensure that all staff members are trained and comply with the content of the PHC laboratory handbook
2. Ensure that CLI is a standing agenda item
3. Oversee the delivery of laboratory services across a district or districts.
4. Manage courier collection times and frequency across the district.
5. Attend to laboratory services raised by the Facility Manager within two working days.
6. To ensure regular assessment/audit compliance to processes described in the PHC laboratory handbook using sub-component 14
7. Attend to laboratory services raised by the Facility Manager that were not addressed by the Business Manager within seven working days
8. Attend provincial laboratory services meetings
9. To ensure the availability of specimen collection materials and request forms
10. Manage the delivery of laboratory services across the province.
11. To ensure that staff follow the appropriate processes to supply specimen collection materials using the N3 Specimen Collection Materials Order Book.
12. To provide testing within the specified turn-around-times.
13. To ensure that data capturers are trained and competent capture information provided on the N1 PHC laboratory.
14. Review performance within the district for sub-component 14

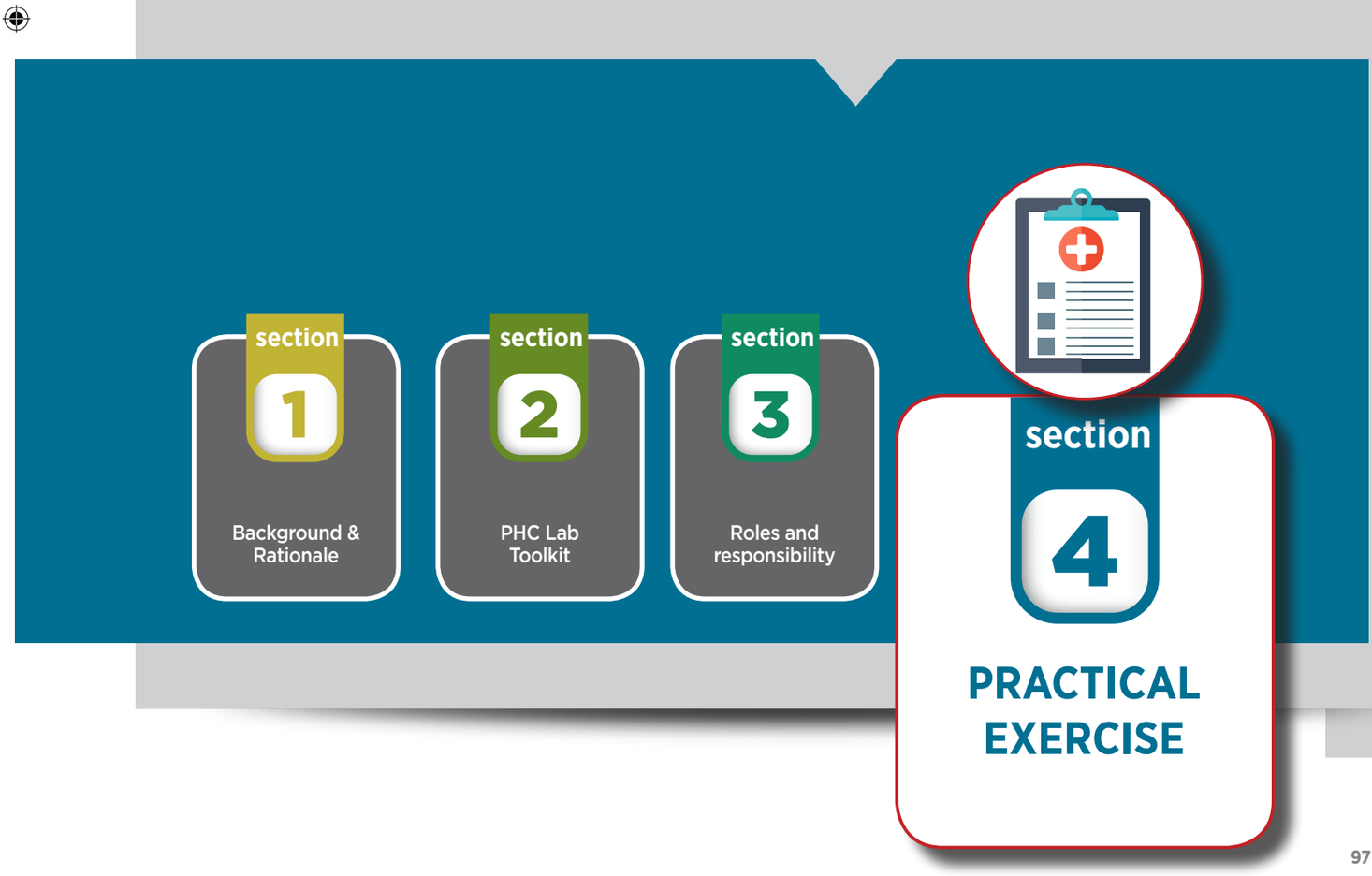
SECTION **THREE**

Answer sheet

Facility Manager	1	6	9	
DMT	2	14		
Laboratory Manager	5	11	12	13
Business Manager	3	4		
Area Manager	7	8	10	

SECTION FOUR

PRACTICAL EXERCISE



SECTION **FOUR**

General Instructions for all groups

- A 29-year-old female patient presented to the KT Motubatse clinic for with a one-week history of nausea, vomiting and generalised body weakness.
- She also reported that she took medication for cough 3 weeks ago but she is still coughing. No fever
- On completion of assessment and examination you suspect that she could be pregnant and you also want to test for TB

In your group

- Divide participants into six groups.
- Each group much use the case study to answer the questions and undertake an activity (where appropriate) for each section.
- Participants must refer to the PHC Laboratory Handbook for thus activity.
- For each group, print out the instructions.
- Where possible, the facilitator can also provide some test tubes, a specimen bag and the N1 form with barcode labels for the applicable groups to use.
- At the end of the exercise, each group can come and present their answers and activities.

Groups to be formed

Group One: Section One (Complete Request Form)

What is the clinical assessment

What test/s need to be performed

Are the test/s listed in the PHC ELL

Which fields are mandatory when completing the request form

What impact will the test results have on further management of this patient?

SECTION **FOUR**

Complete the N1 request form below:

PLEASE TEAR HERE PLEASE TEAR HERE PLEASE TEAR HERE PLEASE TEAR HERE PLEASE TEAR

NATIONAL HEALTH LABORATORY SERVICE

CCMT YES NO

NHLS LAB NUMBER BARCODE

AAAA0001P

Practice number 5200296

MARK IF URGENT ☐

PHC REQUEST FORM

PATIENT

CLINIC FOLDER NUMBER
PATIENT ID / PASSPORT
SURNAME
FIRST NAME/S
TITLE: GENDER: M F RACE:
DATE OF BIRTH Y Y Y Y / M M / D D AGE
PHYSICAL ADDRESS
TELEPHONE: CELL:

FACILITY NAME
SERVICE POINT
NHLS FACILITY CODE
COLLECTION DATE TIME
SPECIMEN TYPE
REQUESTED BY: HEALTH CARE WORKER (HCW)
HEALTH CARE WORKER (HCW) SIGNATURE
HPCSA / SANC NO
CONTACT NO
IF SPECIMEN COLLECTED BY OTHER: NAME:
HPCSA / SANC NO

Chemical Pathology

Y	☐	ALP (Alkaline Phosphatase)	A	Y	☐	Folate (serum)	A	R	☐	Pleural Effusion Protein	A
Y	☐	ALT (Alanine Transaminase)	A	Y	☐	FT4 (Free Thyroxine)	A	Y	☐	Potassium	A
Y	☐	Amylase/Lipase	A	Y	☐	Gamma GT (GGT)	A	Y	☐	PSA (Prostate-Specific Ag)	A
Y	☐	Calcium	A	G	☐	Glucose	A	Y	☐	Sodium	A
Y	☐	Cholesterol	A	P	☐	HbA1c (Glycated Haemoglobin)	A	Y	☐	Total Bilirubin	A
Y	☐	Creatinine (eGFR)	A	Y	☐	LDL-C (LDL-Cholesterol)	A	Y	☐	Triglycerides	A
Y	☐	CRP (C-Reactive protein)	A	Y	☐	Phenytoin	A	Y	☐	TSH (Thyroid-Stimulating Hormone)	A

Y	☐	Uric Acid	
SJ	☐	Urine albumin: creatinine ratio	
SJ	☐	Urine protein: creatinine ratio	
Y	☐	Vitamin B12	

Haematology

P	☐	Differential Count	A
P	☐	FBC (Full Blood Count)	A
P	☐	Haemoglobin	A
B	☐	INR (International Normalized Ratio)	A
P	☐	Platelets	A
P	☐	Red Cell Antibody screen (Coomb's Test)	A
P	☐	WBC (White Blood Cell)	A

Microbiology

Y	☐	CRAG (Cryptococcal antigen test)	A
Y	☐	Hepatitis A IgM	A
Y	☐	Hepatitis B Surface Ag	A
Y	☐	HIV Elisa (discordant rapids)	A
SJ	☐	Stool parasites	C
Y	☐	Syphilis serology	A
	☐	MCS (Microscopy, culture and sensitivity)	C

SPECIMEN
ANATOMICAL SITE

TB Testing

SJ	☐	TB GeneXpert	D
SJ	☐	TB Microscopy	D
SJ	☐	TB Culture	D

TB Drug Susceptibility testing:
☐ Xpert negative: Culture with 1st line DST
☐ DR-TB: Reflex DST testing
☐ Failing MDR regimen: Phenotypic DST
☐ Other (specify): _____

TB DATA COLLECTION - MUST BE COMP

PRESUMPTIVE TB: Please tick revelan
☐ New
☐ Previously treated

FOLLOW UP ON TREATMENT:
☐ Susceptible TB
☐ 2-3 Months
☐ 5-7 Months
☐ Rifampicin-resistant TB
Number of months on treatment: ___

PREVIOUS GXP RESULT:
☐ Negative ☐ Positive Date: ___
☐ Rifampicin-resistant

HIV STATUS:
☐ Negative ☐ Positive Date: ___

HIV Viral Load

W/P ☐ HIV Viral Load A

Please complete relevant boxes:
☐ Routine monitoring ☐ Pregnant
Number of months on treatment ☐
☐ Other (e.g. illness, virological failure)

HIV DNA PCR

DBS/P ☐ HIV DNA PCR A

Please tick relevant boxes:
YES NO Has mother received PMTCT?
YES NO Has infant received PMTCT?
YES NO Infant breast fed in past 6 weeks
YES NO Birth PCR

HIV CD4 Count

P ☐ CD4 Count A

Please tick one box:
☐ Baseline
☐ Not yet on ART
☐ On ART

Blood Grouping

Y ☐ Rh (Rhesus Factor)
Y ☐ ABO

Clinical information

FOR LABORATORY USE ONLY

RECEIVED BY
DATE

Enter Number of Test Specimens Received

YELLOW		RED		GREY	
PURPLE		BLUE		WHITE	
DBS		SPECIMEN JAR		OTHER	

OTHER TESTS (please motivate)

SPECIMEN

AAAA0001P AAAA0001P AAAA0001P
AAAA0001P AAAA0001P AAAA0001P

Group Two: Section Two (Collect Specimen)

Which specimens will you collect?

Identify the specimen collection materials required for the test.

What Infection Control Precautions (IPC) must be considered when collecting specimen?

What are the specimen handling requirements for the test/s?

Describe the specimen collection procedure/s for the test/s.

SECTION **FOUR**

Group Three: Section Three (Package Specimen)

Describe how you would label the specimen/s.

Describe how you would attach the request form barcode labels.

What would you record in the patient file?

In which compartment would each specimen be placed?

Where would the request form be placed?

How many patient specimens can be placed in a specimen bag?

Group Four: Section Four (Specimen Storage)

Identify the specimen storage condition for the test/s required for this patient.

What would be the impact of dramatic temperature fluctuation of the test/s?

What information is required on the N4 Facility Specimen Register cover?

Describe what information you would capture for your patients in the N4 Facility Specimen Register.

Describe the designated area where you would drop of the package and recorded samples.

SECTION **FOUR**

Group Five: Section Five (Specimen Collection by Courier)

How is the courier identified?

What are the courier arrangements for most health facilities?

What are the courier arrangements for most health facilities?

Describe how you would confirm that the samples awaiting courier collection match the entries in the N4 Facility Specimen Register cover.

Describe the procedure for recording samples handed over to the courier.

Group Six: Section Six (Manage Laboratory Results)

Describe the different mechanisms for receiving patient results.

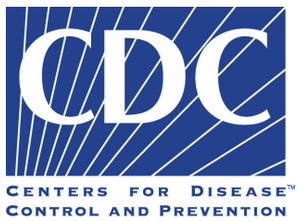
How are the printed laboratory results delivered?

Describe what a log sheet is and what is required when the courier delivers patient results?

Describe the process for reviewing the delivered patient results.

Describe the process for reviewing the delivered patient results.

Describe how patient results are recorded and filed.



Printing of this manual was supported by the Grant or Cooperative Agreement Number, NU2GGH001932, funded by the Centers for Disease Control and Prevention. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the Centers for Disease Control and Prevention or the Department of Health and Human Services.

CONTACT DETAILS

National Department of Health
Private Bag X828
Pretoria

National Health Laboratory Service
1 Modderfontein Road
Sandringham