ACKNOWLEDGMENTS

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**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
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SECTION ONE

BACKGROUND AND RATIONALE FOR THE DEVELOPMENT OF THE PHC LABORATORY TOOLKIT
BACKGROUND AND RATIONALE FOR THE DEVELOPMENT OF THE PHC LABORATORY TOOLKIT

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

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
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)
Welcome to the Primary Health Care (PHC) Laboratory Toolkit
Training of Trainers

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.
Background and Rationale for the development of the Primary Health Care (PHC) Laboratory Toolkit

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.
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.
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
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)
Workshop process-Facilitator input

- Explain to participants that the NDP sets the broad development agenda for South Africa. There are 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?
## Current status of PHC services

<table>
<thead>
<tr>
<th>Patients experience low-quality service delivery, with non-integrated care that is not aligned with the patient’s needs</th>
<th>Patient <strong>waiting time</strong> in clinics is 2-5 hours, with on average 79% of time in clinic spent waiting</th>
</tr>
</thead>
<tbody>
<tr>
<td>80% of clinics are not “fit for purpose”, with obsolete or inadequate infrastructure</td>
<td><strong>Essential (medical) supplies</strong> are often missing at clinic level, because of a broken and unresponsive supply chain</td>
</tr>
</tbody>
</table>

### 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.
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.
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.
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.
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.
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.
Current Clinic-Laboratory Interface (CLI) challenges

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.
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)
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.

- 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.
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.
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?
Rationale for the development of the PHC Laboratory Toolkit to address CLI challenges

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).
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 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.
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.
Pictures of the toolkit

Workshop process-Facilitator input

• Identify each image and indicate which component is illustrated:
  Essential Laboratory Lists (ELL);
  The PHC Laboratory Handbook Cover; and
  NI 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.
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.
Pictures of the toolkit

Workshop process-Facilitator input

- Identify each image and indicate which component is illustrated:
  N4 Facility Specimen Register.
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.
Facility level: Monitoring Ideal clinic sub component 14

<table>
<thead>
<tr>
<th>National Core Standards</th>
<th>Sub Component ELEMENTS</th>
<th>Weight</th>
<th>MM</th>
<th>Level of responsibility</th>
<th>Checklist</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>14. Management of laboratory services: Monitor consistent availability and use of laboratory services</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>106</td>
<td>Primary Health Care Laboratory Handbook is available</td>
<td>E</td>
<td>NGQH</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>107</td>
<td>Required functional diagnostic equipment and concurrent consumables for point of care testing are available</td>
<td>E</td>
<td>HF</td>
<td>Y</td>
<td></td>
<td></td>
</tr>
<tr>
<td>108</td>
<td>Required specimen collection materials and stationery are available</td>
<td>E</td>
<td>HF</td>
<td>Y</td>
<td></td>
<td></td>
</tr>
<tr>
<td>109</td>
<td>Specimens are collected, packaged, stored and prepared for transportation according to the Primary Health Care Laboratory Handbook</td>
<td>E</td>
<td>HF</td>
<td>Y</td>
<td></td>
<td></td>
</tr>
<tr>
<td>110</td>
<td>Laboratory results are received from the laboratory within the specified turnaround times</td>
<td>E</td>
<td>HF</td>
<td>Y</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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).
Facility level: Monitoring

- Check applicable documents e.g. policies, guidelines, standard operating procedures, data, etc.
- Ask staff members and/or clients for their views or level of understanding
- Objective observations and/or conclusion
- Test the functionality of equipment/systems

### Key

<table>
<thead>
<tr>
<th>Key</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>NDH</td>
<td>National Department of Health</td>
</tr>
<tr>
<td>P</td>
<td>Province</td>
</tr>
<tr>
<td>D</td>
<td>District</td>
</tr>
<tr>
<td>HF</td>
<td>Health facility</td>
</tr>
</tbody>
</table>

### Facilitator guide re design.indd   33
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National level: Monitoring parameters

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

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.
SECTION TWO

PRIMARY HEALTH CARE (PHC) LABORATORY TOOLKIT

- **Section 2**: Background & Rationale
- **Section 3**: Roles and responsibility
- **Section 4**: Practical exercise

PHC LAB TOOLKIT
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.

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
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
Primary Health Care (PHC) Laboratory toolkit

Session 2

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.
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.
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.
PHC Laboratory Handbook Overview

Session 2
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.
### PHC Laboratory Handbook

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

<table>
<thead>
<tr>
<th>The PHC Laboratory handbook and the NHLS national laboratory handbook</th>
</tr>
</thead>
<tbody>
<tr>
<td>The PHC laboratory handbook does not replace the NHLS national laboratory handbook</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PHC laboratory handbook aims to:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide guidance for the selection of appropriate laboratory tests, specimen collection and preservation, storage, recording and tracing of courier collections.</td>
</tr>
<tr>
<td>Define available platforms to obtain lab results</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PHC laboratory handbook helps to prevent or minimise:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incorrect test selection</td>
</tr>
<tr>
<td>Incomplete/ poorly completed request forms</td>
</tr>
<tr>
<td>Unlabelled and leaking specimens</td>
</tr>
<tr>
<td>Contaminated / aseptically collected specimens</td>
</tr>
<tr>
<td>Unnecessary tests duplications</td>
</tr>
<tr>
<td>Tracing and retrieval of results</td>
</tr>
</tbody>
</table>

### 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.
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.
PHC Laboratory Handbook Step by Step Guide Section 1 - 8

Session 2

Primary Health Care (PHC) Laboratory Toolkit
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.
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.
**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.
Primary Health Care (PHC) Laboratory Toolkit
Primary Healthcare Laboratory HANDBOOK
FACILITATOR GUIDE

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

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?
The next two slides reflect expected responses

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

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.

N1 PHC request form

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.
N2 Cytology 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.
Section 2: Specimen Collection

Efficiency considerations:
NOTE
All specimen collection procedures 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.
PHC Essential Laboratory List (ELL)

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.
### Key to specimen handling

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

**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.
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.
### Specimen collection procedure

<table>
<thead>
<tr>
<th>Venipuncture</th>
<th>Blood collection</th>
<th>Neonates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microbiology</td>
<td>Cytology</td>
<td>EID</td>
</tr>
</tbody>
</table>

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.
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

- Package Specimen
- Record test request in patient folder
- Label Specimen

- 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
- 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
- Write the patient's 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

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.
Workshop processes-Facilitator Input

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

1. N1, PGC & N2: Cytology Laboratory Request Forms. Fold the form in half and insert into compartment with patient information facing outward. This will enable the laboratory to read the N1, PGC and N2 Request Form without unpacking the entire package.

2. Sterile specimen jar. Larger compartment reserved for specimen jars.


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.
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.
Example of completed PHC Facility Specimen Register (N4) cover

Workshop processes-Facilitator Input

- An example of the cover page.
- Note information provided.
Example of a Specimen Facility Register (N4) with patient samples captured prior to courier collection

Workshop process: Facilitator input

- Note that this is what the register looks like prior to courier collection.
Section 5 specimen collection by courier

Handover samples to the courier → Courier Collection

- Staff must check to ensure that the number of specimen packages from the specimen collection box, fridge or cooler box correspond with the number of entries in the N4-PHC Facility Specimen Register.
- Handover specimens.
- Draw a line in the N4-PHC Facility Specimen register after the last specimen entered.
- Sign the NHLS courier log sheet to confirm specimen collection.

Courier Collection → A courier service is provided by the NHLS to collect patient specimens on a daily basis (or as agreed with the district management team (DMT)).
- The courier should arrive daily at the scheduled time. If not, follow the escalation procedure to alert the laboratory manager.

Workshop process-Facilitator input
- Section 5 focuses on Specimen collection by courier.
- Take participants briefly thorough the two steps.
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 6: Manage laboratory results

File Results in the Patient Folder

- File results in the patient folder
- Update the Laboratory Test Results form in the Patient Folder
- Update the N4 Register to indicate which results have been received
- Note how this is different from the current procedure

Review Results

- Open envelop ensure it becomes to correct facility
- Screen all report to identify abnormal results
- Record date and time of review and update the N4 register to indicate which test results were delivered

Access Results

- Results can be accessed via:
  - Telephone
  - Printed (Routine/Primary mechanism)
  - SMS
  - NHSL WebView Portal

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.
Results access methods

1. Printed laboratory results
   - Routine delivery of printed patient results by the courier. This is the primary mechanism for receiving results.

2. Electronic access to laboratory results
   - **NILS SMS printer**
     - The latest laboratory results will be printed automatically by the SMS printer at the facility.
     - However, if the results are misplaced or not received within 24hrs, then scan the request form barcode to access and print the laboratory results.
   - **NILS Web/View portal**
     - The NILS web view results portal (Task Care Lab Web/View) is available provided you have a computer with internet access.
     - All users need to be individually registered to use the service. Please request user registration form from your local laboratory manager.
     - Following registration, you will be allocated a username and password to access results.

3. Telephonic access
   - Call your local laboratory to request the patient results using barcode.

Workshop process-Facilitator input
- This slide is a visual illustration of different ways to access results.
Section 7: Order Specimen Collection Materials

Receive the specimen collection materials

Hand completed N3 form to the courier

Complete N3 form

Review the Facility Specimen Register (N4) entries

Conduct a stock take of specimen collection materials

Receive the specimen collection materials delivered by the NHLS courier. Update the section "Materials Received by Facility".

Ask the courier to complete the section collection by courier before handing over the form.

Using the information obtained from the stock take and review of the Facility Specimen Register (N4) complete the Specimen Collection Order Book (N3).

Review the N4 Facility Specimen Register to assess the quantity of request forms and specimen collection used in the last two weeks.

Conduct a stock take of all specimen collection materials in the health facility.

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.
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.
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.
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 1
Background & Rationale

section 2
PHC Lab Toolkit

section 3
ROLES AND RESPONSIBILITY

section 4
Practical exercise
ROLES AND RESPONSIBILITY

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.

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
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)
Roles and responsibility

Session 3

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.
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.
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.
Classroom exercise: Session 3

In your group
- Review the set of cards provided
- Each card describes a responsibility 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.
Roles and responsibility: By Staff Level

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.
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.
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
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:
- Turn-around times (TAT)
- Availability of specimen collection materials
- Adherence to agreed laboratory courier collection schedules

Health facility performance:
- Incomplete request forms
- Inadequate specimen collection
- Inappropriate specimen storage

Review courier services arrangements:
- Frequency and times for sample collection per health facility

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 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.
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 across 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).

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 across the province.
- Attend provincial laboratory services meetings.
Workshop process-Facilitator input

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

- **Area Manager** (7 Working Days)
- **Business Manager** (4 Working Days)
- **Laboratory Manager** (2 Working Days)

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.
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
Discussion

Workshop process-Facilitator input
Ask the delegates if they have any further questions.
Roles and responsibility

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.
## Answer sheet

<table>
<thead>
<tr>
<th>Role</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility Manager</td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td>6</td>
<td></td>
<td></td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>DMT</td>
<td></td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td>14</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laboratory Manager</td>
<td>5</td>
<td></td>
<td></td>
<td>11</td>
<td>12</td>
<td>13</td>
<td></td>
<td></td>
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<tr>
<td>Business Manager</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Area Manager</td>
<td>7</td>
<td></td>
<td></td>
<td>8</td>
<td></td>
<td></td>
<td>10</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
SECTION FOUR

PRACTICAL EXERCISE

1. Background & Rationale
2. PHC Lab Toolkit
3. Roles and responsibility
4. PRACTICAL EXERCISE
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 must 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 this 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

[Diagram of activity sections]
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?

_____________________________________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________
Complete the N1 request form below:

![N1 Request Form Image]
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.
_____________________________________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________
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?

_____________________________________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________
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Where would the request form be placed?

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

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Group Four: Section Four (Specimen Storage)

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

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

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

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

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

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Group Five: Section Five (Specimen Collection by Courier)

How is the courier identified?
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What are the courier arrangements for most health facilities?
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What are the courier arrangements for most health facilities?
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Describe how you would confirm that the samples awaiting courier collection match the entries in the N4 Facility Specimen Register cover.
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Describe the procedure for recording samples handed over to the courier.
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Group Six: Section Six (Manage Laboratory Results)

Describe the different mechanisms for receiving patient results.
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How are the printed laboratory results delivered?
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Describe what a log sheet is and what is required when the courier delivers patient results?
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Describe the process for reviewing the delivered patient results.
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Describe how patient results are recorded and filed.
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