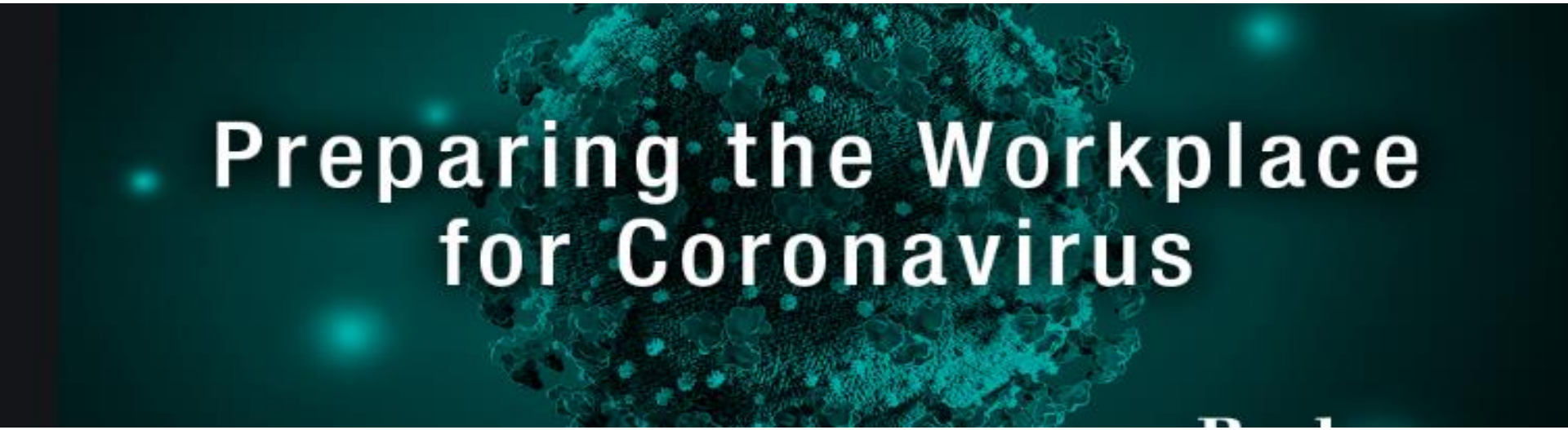
NATIONAL HEALTH LABORATORY SERVICE

NATIONAL INSTITUTE FOR OCCUPATIONAL HEALTH
Division of the National Health Laboratory Service

NATIONAL INSTITUTE FOR COMMUNICABLE DISEASES
Division of the National Health Laboratory Service



Preparing the Workplace for Coronavirus

HEALTH CARE WORKERS

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NHLS

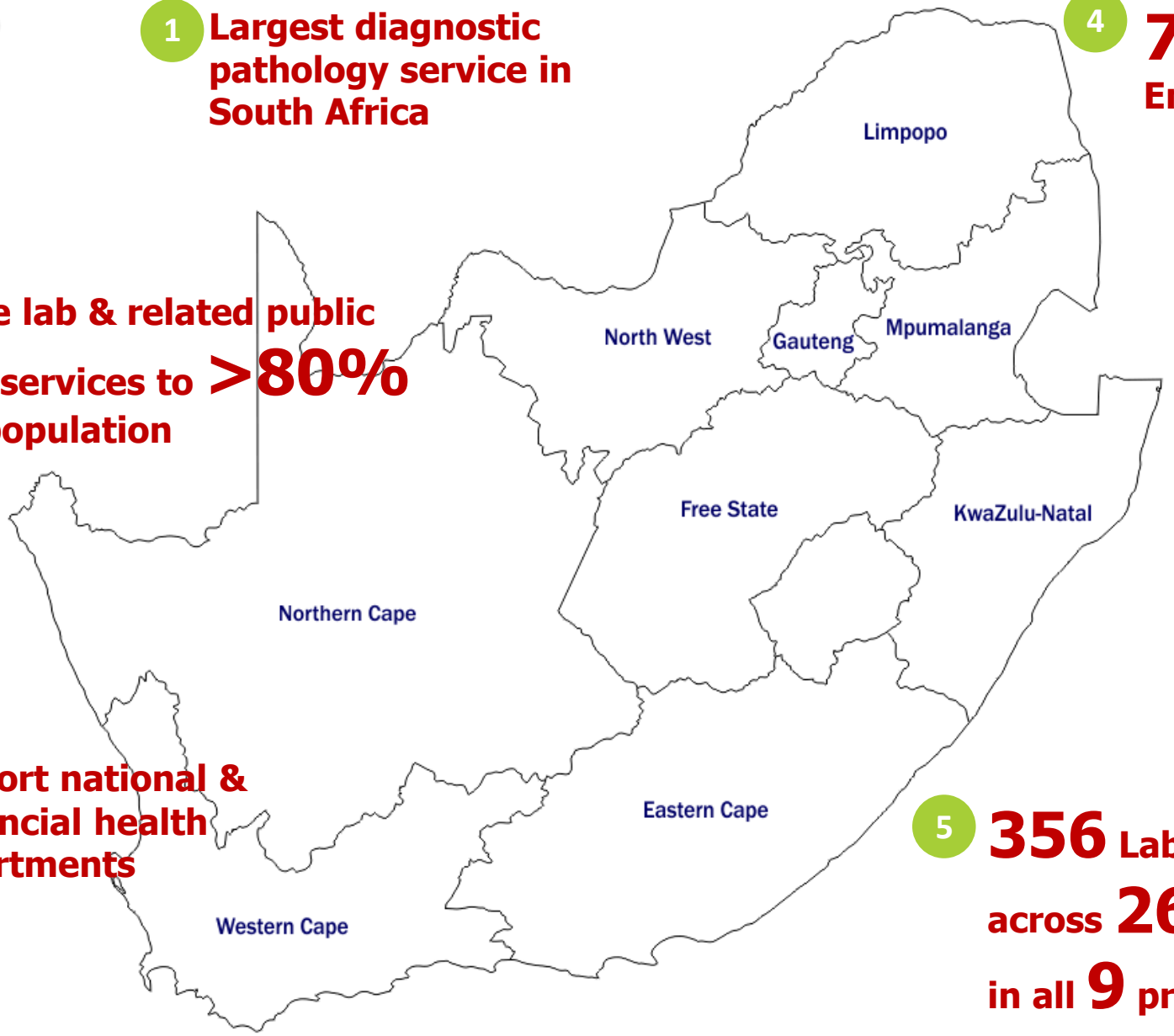
1. **Largest diagnostic pathology service in South Africa**

2. **Provide lab & related public health services to >80% of SA population**

3. **Support national & provincial health departments**

4. **7515 Employees**

5. **356 Laboratories across 260 sites, in all 9 provinces**



HOW TO STAY INFORMED:
THIS SITUATION IS RAPIDLY EVOLVING
Please check for updates on the NICD, NIOH and NDOH websites
www.nicd.ac.za | www.nioh.ac.za www.ndoh.gov.za

Latest updated information on the spread of COVID-19
https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports

Advice and guidance
https://www.who.int/emergencies/diseases/novel-coronavirus-2019
https://www.ilo.org/beijing/information-resources/public-information/WCMS_736744/lang--en/index.htm

MITIGATION OF RISK IN THE WORKPLACE

Primary prevention

- Business continuity and pandemic preparedness - Policies
- Minimise risks of transmission in the workplace. HRA including controls (Engineering, Administrative and **PPE**)
- Education and Training /HP (risk communication)

Secondary Prevention

- Identify persons at risk early and respond appropriately
- Medical screening / Medical Surveillance / Treatment
- Quarantine
- Etc

Tertiary prevention

- Rehabilitation
- Respond appropriately to a case of COVID amongst staff
- COIDA
- Leave etc

PPE use & COVID-19

- **Risk Assessment**
  - Outcome of the risk assessment
  - International best practice
  - Organisational policies

- **RPE use & COVID-19**
  - High risk -respirators are recommended for use during aerosol generating procedures
  - Recommended N95/ FFP2
  - Effective respiratory protection program (RPP)
  - Elements include policies, respirator selection, medical evaluation, training and ***respirator fit testing***

Respirator fit testing

- **Definition**
  - It tests whether a specific type, model and size of respirator can adequately fit a specific individual

Why conduct respirator fit testing?

- To confirms if the respirator provides a satisfactory fit or barrier between the user and contaminated environment
- It allows for refresher training on correct donning of the respirator
- It also gives the employee confidence that they are protected by their supplied respirators

When do you conduct respirator fit testing?

- During the initial selection of a respirator
- New hazard identified (as per outcome of risk assessment)
- As part of refresher training e.g. annually

Respirator fit testing (cont)

Who can respirator fit testing?

- A competent person with both knowledge and training

How to conduct respirator fit testing?

- Qualitatively or Quantitatively
- Qualitative fit testing is currently preferred since it minimises the destruction of N95 respirator used in fit testing.

Factors affecting fit

- **Include**
  - Facial hair and beards
  - Incorrect donning of a respirator
  - Incorrect respirator size or shape
  - Facial deformities around seal areas
  - Compatibility with other equipment
  - Multiple donning and doffing

Respirator fit

- **Respirator re-use**
  - Manufacturer instruction : single use
  - Resource constraints – RA to prevent contamination during doffing and storage
  - CDC strategy for optimising the supply of RPE - extended use but avoid discomfort
- **Importance of respirator fit testing**
  - It is important that the respirator-user match is checked to avoid unsatisfactory fit even though the user is wearing a respirator correctly selected for the hazard or purpose
  - A properly fitting respirator will reduce exposure to inhalation hazards in respirator users thus reducing the potential for infection

Sources of Information

1. World Health Organization. (2020). Rational use of personal protective equipment for coronavirus disease (COVID-19): interim guidance, 27 February 2020. World Health Organization. https://apps.who.int/iris/handle/10665/331215. License: CC BY-NC-SA 3.0 IGO (Accessed 5/03/2020)
2. Jeanneth Manganyi, Kerry S. Wilson, David Rees .(2017). Quantitative respirator Fit, face Sizes, and determinants of fit in South African Diagnostic Laboratory Respirator Users, Annals of Work Exposures and Health. 61(9):1154-62.
3. Centre for Disease control. (2018). Respirator Trusted-Source Information.//www.cdc.gov/niosh/npptl/topics/respirators/disp_part/RespSource3fittest.html (Accessed 5/03/2020)
4. Centre for Disease control. (2020) Strategies for Optimizing the Supply of N95 Respirators https://www.cdc.gov/coronavirus/2019-ncov/hcp/checklist-n95-strategy.html (Accessed 8/03/2020)

ACKNOWLEDGEMENT

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