



**NATIONAL INSTITUTE FOR
OCCUPATIONAL HEALTH**

Division of the National Health Laboratory Service

TRAINING PROGRAMME

Training Issue:

"Occupational Health Services for COVID-19 in the health sector"

HealthWISE COVID-19 risk assessment for the 3rd wave in South African health facilities

Presenter

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Methods

- Study design
 - Participatory Action Research
- Population and setting
 - 4 tertiary hospitals in 2 provinces in South Africa
 - Population (HealthWISE experts (NIOH & UP) as well as health workers from participating hospitals and trade unions)
 - The hospitals that were assessed had a total number of workers of 14,743

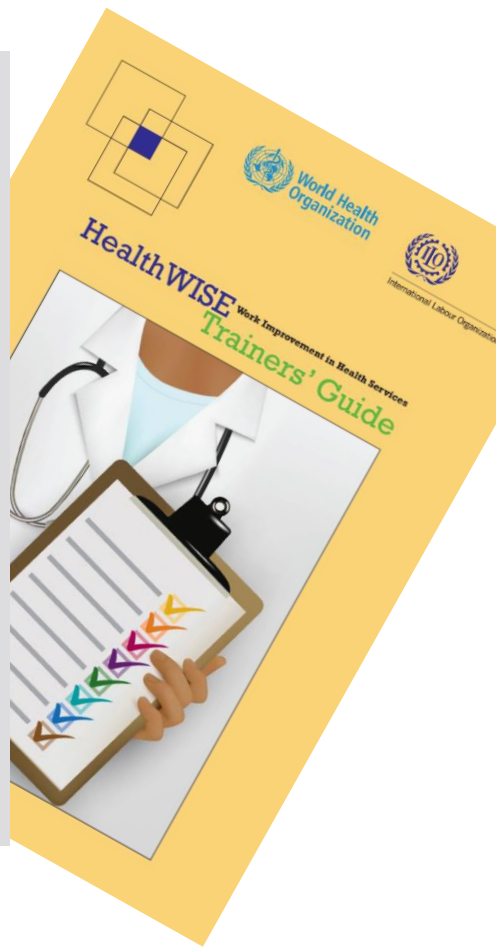
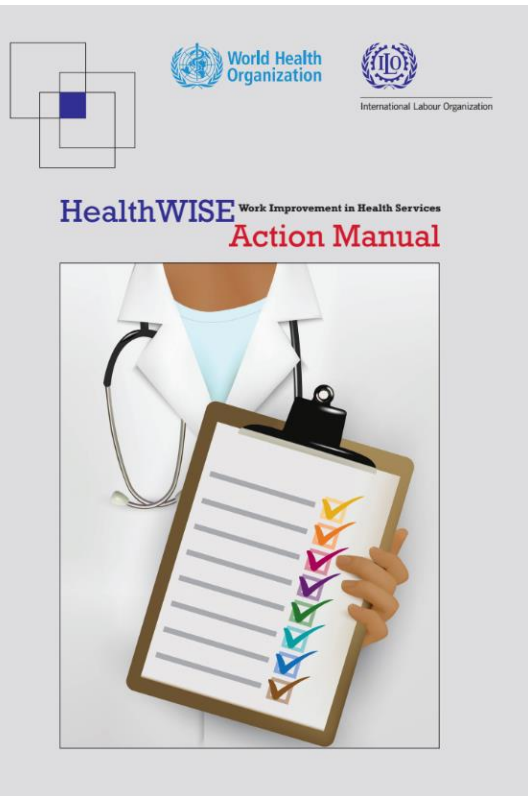
Province 1	Province 2
<ul style="list-style-type: none">• Hospital A: 5300• Hospital B: 6500	<ul style="list-style-type: none">• Hospital C: 1043• Hospital D: 1200

- Sampling
 - Convenience sampling
- Data collection tools
 - HealthWISE Checklist
 - Qualitative observational HealthWISE risk assessment.



HealthWISE

A practical, participatory quality improvement **tool** for health facilities. Which encourages workers and managers to work together to improve workplaces and practices using local low-cost solutions.



- Module 1:**
Controlling occupational hazards and improving workplace safety
- Module 2:**
Musculoskeletal hazards and ergonomic solutions
- Module 3:**
Biological hazards and infection control,
with special reference to HIV and TB
- Module 4:**
Tackling discrimination, harassment
and violence at the workplace
- Module 5:**
Towards a green and healthy workplace
- Module 6:**
The key role of staff: Recruitment, support,
management, retention
- Module 7:**
Working time and family-friendly measures
- Module 8:**
Selecting, storing and managing equipment and supplies

HealthWISE Checklist Results for Entrance/Security

	Hospital A	Hospital B	Hospital C	Hospital D
Is there a routine to identify and assess biological hazards at the workplace?	Yes	No	Yes	No
What action do you propose/Suggestions.	N/A	Need for thermometers, screening, surgical masks for security, currently using cloth mask	N/A	Health screening should be done in order to detect infections in the work place
Are measures taken to prevent and control droplet-borne hazards such as COVID-19?	Yes	No	Yes	Yes
What action do you propose/Suggestions.	N/A	Social distancing, review visiting hours currently 2 to 4 pm	N/A	N/A
Is a comprehensive workplace COVID-19 and TB prevention and care programme implemented	Yes	No	Yes	No
What action do you propose/Suggestions.	N/A	No visuals of information on prevention therefore more visual information, active training from visible OHS team	N/A	Infer provision of in-service trainings. Plan to be made available in order to guide the staff.

HealthWISE Checklist Results for Out Patient

	Hospital A	Hospital B	Hospital C	Hospital D
Is there a routine to identify and assess biological hazards at the workplace?	No	No	No	Yes
What action do you propose/Suggestions.	Screening at door, crowded, social distancing uncontrollable, no space. need space, crowd control, screening, arguing with patients	Need space, crowd control, arguing with patients, screening at gate	Add cleaners/ at night, no equipment/PPE, no hot water	N/A
Are measures taken to prevent and control droplet-borne hazards such as COVID-19?	Yes	Yes	Yes	Yes
What action do you propose/Suggestions.	N/A	N/A	N/A	N/A
Is a comprehensive workplace COVID-19 and TB prevention and care programme implemented	Yes	Yes	No	Yes
What action do you propose/Suggestions.	N/A	N/A	Education, counselling because of patients dying	N/A

HealthWISE Checklist Results for Casualty

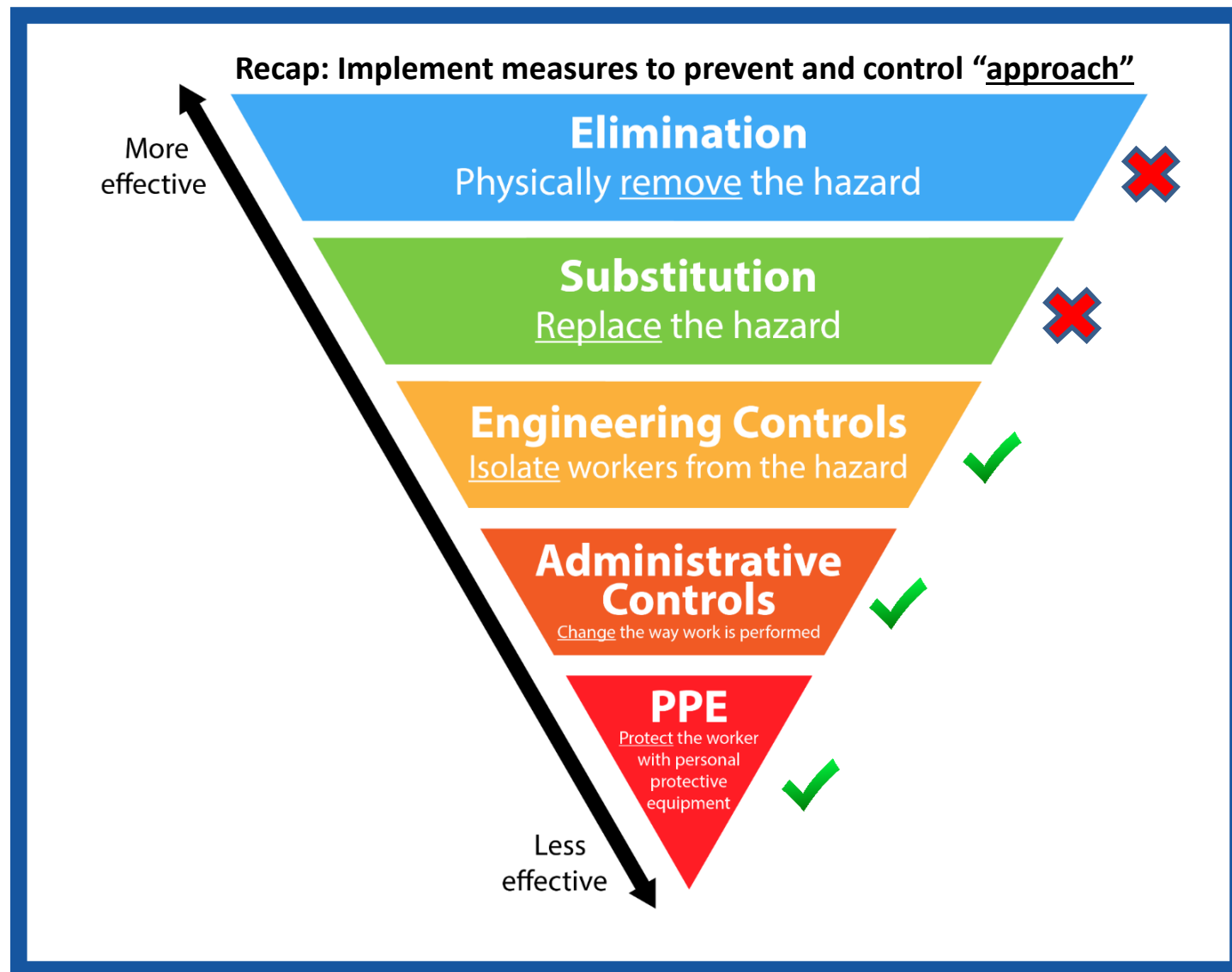
	Hospital A	Hospital B	Hospital C	Hospital D
Is there a routine to identify and assess biological hazards at the workplace?	Yes	Yes	No	Yes
What action do you propose/Suggestions.	N/A	N/A	No Suggestions	N/A
Are measures taken to prevent and control droplet-borne hazards such as COVID-19?	No	No	Yes	Yes
What action do you propose/Suggestions.	Over crowding/ increase air circulation, space, bigger casualty, most patients spend days in casualty	More masks, minimise number of people	N/A	N/A
Is a comprehensive workplace COVID-19 and TB prevention and care programme implemented	Yes	Unsure	No	Yes
What action do you propose/Suggestions.	N/A	They do not feel the need to test because they are already exposed	Can't think of anything	N/A

HealthWISE Checklist Results for Covid-19 wards

	Hospital A	Hospital B	Hospital C	Hospital D
Is there a routine to identify and assess biological hazards at the workplace?	No	Yes	No	Yes
What action do you propose/Suggestions.	Specimen taking in process of work inspection	N/A	Proper in-service training	N/A
Are measures taken to prevent and control droplet-borne hazards such as COVID-19?	Yes	Yes	No	Yes
What action do you propose/Suggestions.	N/A	N/A	Provide enough routine fumigation	N/A
Is a comprehensive workplace COVID-19 and TB prevention and care programme implemented	Yes	Yes	Yes	No
What action do you propose/Suggestions.	N/A	N/A	N/A	They do not have a program



Qualitative observational HealthWISE risk assessment.



Entrance/Security Administrative Controls

	Province 1		Province 2	
	Hospital A	Hospital B	Hospital C	Hospital D
Are staff social distancing?	No	No	Yes	No
Are there posters or information leaflets about COVID-19?	No	No	No	No
Is furniture positioned for social distancing?	No	No	No	No
Is there an area with water and soap to clean hands?	Yes	No	No	No
Are there hand sanitizers in all entrances and exit points?	No	No	No	Yes
Is waste properly segregated?	No	No	No	No

Ventilation and PPE for Entrance/Security

Entrance Ventilation

In all the 4 hospitals the ventilation was adequate except if you are in the security guard room.

PPE Staff was wearing at the entrance

	Province 1		Province 2	
	Hospital A	Hospital B	Hospital C	Hospital D
Cloth mask	Yes	Yes	Yes	Yes
Surgical mask	Yes	Yes	Yes	Yes
N95 Respirator	No	Yes	No	No

Health workers were not wearing PPE properly

Casualty Ventilation

Hospital A:

- It was **inadequate** because of infrastructure which allowed limited natural cross ventilation, absence of extractors even though their air-conditions were working.

Hospital B:

- It was **adequate** they are using mechanical ventilation (extractors and air-conditions simultaneously)

Hospital C:

- It was **Inadequate**, the extractors were not working and no natural cross ventilation.

Hospital D:

- It was **adequate**, even the extractors were tested and were working.

Casualty Administrative Controls

	Province 1		Province 2	
	Hospital A	Hospital B	Hospital C	Hospital D
Is staff social distancing?	No	No	No	No
Are there posters or information leaflets about COVID-19?	No	Yes	No	No
Is furniture positioned for social distancing?	No	Yes	No	No
Is there an area with water and soap to clean hands?	No	Yes	No	Yes
Are there hand sanitizers in all entrances and exit points?	No	Yes	Yes	Yes
Is waste properly segregated?	No	Yes	Yes	Yes
Are there COVID19 waste management boxes?	Yes	No	No	No

PPE Staff was wearing at Casualty

	Province 1		Province 2	
	Hospital A	Hospital B	Hospital C	Hospital D
Cloth mask	No	No	No	Yes
Surgical mask	Yes	Yes	Yes	Yes
N95 Respirator	Yes	Yes	Yes	Yes
Gloves/latex	Yes	No	Yes	Yes
Gloves/other	Yes	Yes	Yes	Yes
Over garment	No	Yes	No	No
Over Boots	No	Yes	No	No
Face shield	No	Yes	Yes	No
Aprons	Yes	Yes	Yes	Yes
Goggles	No	Yes	Yes	No
Caps	Yes	Yes	Yes	Yes

OPD Ventilation

Hospital A:

- It was **inadequate** because no natural cross ventilation and the mechanical ventilation was not working (extractors were not working)

Hospital B:

- It was **adequate** they are using mechanical ventilation (extractors were tested and were working)

Hospital C:.

- It was **inadequate** no windows and mechanical ventilation systems not working

Hospital D:

- It was **inadequate**, there was no natural cross ventilation and not mechanical ventilation.

OPD Administrative Controls

	Province 1		Province 2	
	Hospital A	Hospital B	Hospital C	Hospital D
Is staff social distancing?	No	No	Yes	No
Are there posters or information leaflets about COVID-19?	No	No	No	No
Is furniture positioned for social distancing?	No	No	No	No
Is there an area with water and soap to clean hands?	No	No	Yes	No
Are there hand sanitizers in all entrances and exit points?	No	Yes	Yes	Yes
Is waste properly segregated?	No	No	Yes	Yes
Are there COVID19 waste management boxes?	Yes	No	No	Yes

PPE Staff was wearing at OPD

	Province 1		Province 2	
	Hospital A	Hospital B	Hospital C	Hospital D
Cloth mask	No	Yes	No	No
Surgical mask	Yes	Yes	Yes	Yes
N95 Respirator	Yes	Yes	Yes	Yes
Gloves/latex	Yes	Yes	Yes	Yes
Gloves/other	Yes	Yes	Yes	Yes
Over garment	No	No	No	No
Over Boots	No	No	No	No
Face shield	No	No	Yes	Yes
Aprons	Yes	Yes	Yes	Yes
Goggles	Yes	No	No	Yes

COVID-19 ward Ventilation

Hospital A:

- Its was **adequate**. They were exclusively using mechanical ventilation (extractors were checked and were working)

Hospital B:

- Its was **adequate**. They were exclusively using mechanical ventilation (extractors were checked and were working)

Hospital C:

- It was **inadequate**, no mechanical ventilation system and inadequate natural cross ventilation.

Hospital D:

- It was **inadequate**, no mechanical ventilation system and inadequate natural cross ventilation.

Administrative controls at COVID-19 Ward

	Province 1		Province 2	
	Hospital A	Hospital B	Hospital C	Hospital D
Is staff social distancing?	No	Yes	No	Yes
Are there posters or information leaflets about COVID-19?	No	Yes	No	Yes
Is furniture positioned for social distancing?	No	Yes	Yes	Yes
Is there an area with water and soap to clean hands?	Yes	Yes	Yes	No
Are there hand sanitizers in all entrances and exit points?	Yes	Yes	Yes	No
Is waste properly segregated?	Yes	Yes	Yes	Yes
Are there COVID19 waste management boxes?	Yes	Yes	Yes	Yes

PPE Staff was wearing at COVID-19 Ward

	Province 1		Province 2	
	Hospital A	Hospital B	Hospital C	Hospital D
Cloth mask	No	No	No	Yes
Surgical mask	Yes	Yes	Yes	Yes
N95 Respirator	Yes	Yes	Yes	Yes
Gloves/latex	Yes	Yes	Yes	Yes
Gloves/other	Yes	Yes	Yes	Yes
Over garment	No	Yes	Yes	Yes
Over Boots	Yes	Yes	Yes	Yes
Face shield	Yes	Yes	No	Yes
Aprons	No	Yes	Yes	Yes
Goggles	Yes	Yes	Yes	Yes



Discussion

The checklist revealed that there are inconsistencies in responses as well as a lack of knowledge and practices and some confusions in mitigating approaches for COVID-19 in the health facilities. Furthermore the overall perception of health workers towards covid-19 mitigating measures to reduce their risks in the working place is unsatisfactory.

The HealthWISE qualitative observational assessment revealed that ventilation was poor, administrative control measures were inadequate and although supplies of personal protective equipment (PPE) were adequate, PPE were often not worn properly.

The overall results of the observations shows that efforts to protect health workers have been done but they are very much warranted.

Thank you