

Supplemental file. The framework matrix with direct quotations

Theme	Subtheme	Category	Quote
1 Working environment and health-system readiness	1.1 Planning and management	1.1.1 General	<ul style="list-style-type: none"> • <i>If such [a pandemic] happens, there must be a proper plan and the plan must be consistent. (HC14)</i>
	1.2 Resource availability	1.2.1 General resources <ul style="list-style-type: none"> - Material resources - Infection prevention and control (soap, sanitiser, towels) - Equipment 	<ul style="list-style-type: none"> • <i>Lack of resources was the major impact. (MD07)</i> • <i>Important working material resources were not supplied as requested. (HB05)</i> • <i>We have no soap to wash hands ... No paper towels. (MH04)</i> • <i>There is shortage of working equipment. (HA04)</i>
		1.2.2 PPE and protective clothing <ul style="list-style-type: none"> - Availability of PPE (concerns, initial lack, insufficient stock) - Quality (and completeness) of PPE - Use of PPE - Masks 	<ul style="list-style-type: none"> • <i>There were times when there was no PPE but we were still expected to give care to patients. (HC14)</i> • <i>After we become infected then started to give us PPE. (HD14)</i> • <i>There is correct PPE provided to maternity staff. (MA10)</i> • <i>We only wear it when we are having suspect, 'cause if we wear it it must be changed between patients. (HB04)</i> • <i>Need more PPE and to be able to change the mask after you have taken it out, like after eating not to wear the same mask. When leaving to go home to wear a clean mask and dispose the one that you have been wearing. (HB16)</i>
1.2.3 Human resources <ul style="list-style-type: none"> - Staff shortages – general - Staff under quarantine - Increased workload - Recommendations – more staff 		<ul style="list-style-type: none"> • <i>Disruptions when staff tested positive and contacts had to be isolated made it difficult to maintain because you had to use staff from other departments to fill in. (ME08)</i> • <i>Number of patient care increased due to patients [received from neighbouring hospital]. We had to see more patients with the same no of midwives. There were deliveries everywhere. (HD08)</i> • <i>Human resource to be increased. (MA10)</i> • <i>Given the circumstances, I think there should have been more assistance with human resources, e.g. more midwives as MOU staff was mostly affected. (MF05)</i> 	
	1.3 Infrastructure	1.3.1 Structural constraints: <ul style="list-style-type: none"> - Overcrowding and lack of space - Screening and isolation facilities 	<ul style="list-style-type: none"> • <i>In my facility there is not space, any 4 beds for both patients in labour and postdelivery. Social distancing is impossible. People cannot be nursed on the floor, so they are forced to share single bed two to three patients. 2 delivery beds and we admit up to nine patients per day. Delay of services working time increased because there must be marshals who controls social distancing and screening of patients. (MG05)</i> • <i>Screening and isolating patients [have] not been effective enough due to lack of space and staff insufficiency. (HA06)</i> • <i>No room for PUI. (HA01)</i>

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	1.4 Protocol development and patient management	1.4.1 Changes and adherence to routine and new protocols <ul style="list-style-type: none"> - General - Screening and testing - Management PUIs and COVID-19 positive patients - Infection prevention and control - Mask wearing - Social distancing 	<ul style="list-style-type: none"> • <i>Precautionary measures [were] increased such as wearing of mask all the time and screening on daily basis. Support of patients in general and keep distance from each other. (HB11)</i> • <i>Screening place for everyone who comes in the hospital. (HB12)</i> • <i>Changed procedure on how to treat the patient with regard [to] giving informed decision regarding covid. (MB02)</i> • <i>Precautionary measures, protective clothing and health hygiene [are] the priority to prevent transmission to health care providers. (HC12)</i> • <i>Wearing of masks has been maintained so far. (MB01)</i> • <i>Social distancing still difficult to maintain due to insufficient space. (MB01)</i>
2 Quality of patient care and service provision	2.1 General care	2.1.1 Quality of general and unspecified care <ul style="list-style-type: none"> - Maintained - Deteriorated 	<ul style="list-style-type: none"> • <i>Patient care in maternity was maintained. Casualty work and patient care deteriorated during the pandemic as we couldn't cope. No new changes implemented. (HA02)</i> • <i>Patient care deteriorated, patients are so stressed up even the staff. (ME04)</i>
		2.1.2 Increase in waiting times	<ul style="list-style-type: none"> • <i>Waiting times for patient are longer because they have to queue outside the clinic, get screened before they can get their files and got to consulting rooms. (MD01)</i>
	2.2 Maintenance of CLEVER components	2.2.1 General	<ul style="list-style-type: none"> • <i>At times we are unable to maintain clever maternity care project because if the ward is full difficult to maintain. (MA08)</i>
		2.2.2 Support visits not maintained	<ul style="list-style-type: none"> • <i>No more visits from the district, no more drills and this compromised our services as we still expected to learn from and with them. (HB08)</i>
		2.2.3 Emergency obstetric drills not maintained	<ul style="list-style-type: none"> • <i>No ... more drills and this compromised our services as we still expected to learn from and with them. (HB08)</i>
		2.2.4 Patient support <ul style="list-style-type: none"> - Birth companions - Family support 	<ul style="list-style-type: none"> • <i>No more doulas during labour. Some patients need moral support and visitors during their stays. (MB03)</i> • <i>No more support from relatives of patients and this increased their stress levels and made them anxious and uncontrollable. (HB08)</i>
		2.2.5 Decreased communication with patients and social distancing	<ul style="list-style-type: none"> • <i>Communication with patients minimised. Had to maintain a mandatory social distance, had no proper masks (N95). (HB01)</i>

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		2.2.6 Labour care - Maintained - Deteriorated	<ul style="list-style-type: none"> • Patient care in maternity was maintained. Casualty work and pt [patient] care deteriorated during the pandemic as we couldn't cope. No new changes implemented. (HA02) • Pain medication was ... given as necessary. ... Patients were still allowed to mobilize during labour. They were also allowed to eat and drink as they wished. (ME06) • The influx of patients was overwhelming which made it worse therefore it [CLEVER components] was not maintained. (HD17)
		2.2.7 Respectful care - Maintained - Deteriorated	<ul style="list-style-type: none"> • Making sure of ... maintaining good interpersonal relationships with patients even under anxiety. (HD16) • Due to anxiety/fear of staff I have noticed that some staff members treat patients in a more mean way than usual. (HD05)
		2.2.8 Ward rounds and patient handover - Maintained - Changed	<ul style="list-style-type: none"> • Patient handing over maintained. (HB02) • As a result of the number of patients the morning rounds were not done as expected e.g. checking of fetal heart rate and discussions on patient's condition. (HD13)
		2.2.9 Collegial support and teamwork - Positive - Negative	<ul style="list-style-type: none"> • The work that we do now it has improved our morale and attitude towards our work and with how to treat our clients. It has helped us to do correct things. (HB16) • Some were maintained such on the side of patient care in maternity. However deteriorating in terms of respect amongst each other as some were not coping due to their various personal issues. (HD06)
3 Health care workers' response to the pandemic	3.1 Fear	3.1.1 Fear of transmission - Fear for colleagues (infection, death) - Fear for and of patients	<ul style="list-style-type: none"> • There was so much to be fearful of, less contact with patient relatives and patient included (HB03) • What changed is the resources and human resource as people were always sick, some scared to come to work. (MD06)
		3.1.2 Reactions to fear: - Panic - Denial - Towards colleagues - Towards patients (disrespectful care) - Calmness	<ul style="list-style-type: none"> • ... and the increase of death that made all of us to start panicking. (HC06) • Nothing has changed everything went well and our hospital [did] its best to support and protect us as health care workers. (HC07) • ... Even some staff members were treated badly. (HD05) • Due to anxiety/fear of staff I have noticed that some staff members treat patients in a more mean way than usual. (HD05) • Calmness in dealing with patient from different background, belief system. (MI03)

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	3.2 Lack of information and communication	3.2.1 Effects of lack of information	<ul style="list-style-type: none"> • <i>There's been a lot of change of information about the virus and the increase of death that made all of us to start panicking. (HC06)</i>
		3.2.2 Recommendations on education and training <ul style="list-style-type: none"> - General - Dealing with the pandemic and patient management - PPE training - ESMOE - Patient education 	<ul style="list-style-type: none"> • <i>Information (continuously) written in paper reassurance. (MB02)</i> • <i>More information on how to deal with the pandemic. (HC06)</i> • <i>Do PPE training for all staff. (MA10)</i> • <i>Provision of training like Esmoes. (ME05)</i> • <i>Mobilization and patient education. Patients here frustrated most come to clinic, panicking for information and screening and testing, (MG05)</i>
	3.3 Perceptions of support received	3.3.1 Perceived support from management and district coordinators (positive and negative)	<ul style="list-style-type: none"> • <i>We were always supported by the district team DCST. (MJ04)</i> • <i>Minimal support was maintained by Tshwane district coordinators. (MF06)</i>
		3.3.2 Psychological / emotional support and appreciation	<ul style="list-style-type: none"> • <i>We ... managed to talk about our feelings with psychologist. (HA05)</i> • <i>Positive thing is to be able to look after myself more. (MH07)</i>
	3.4 Demands for mental health and financial support	3.4.1 Need for <ul style="list-style-type: none"> - Acknowledgement and appreciation - Debriefing 	<ul style="list-style-type: none"> • <i>I think emotional support is always key for health workers. They are also social beings who over and above also experience challenges in their personal life – in addition to the work related challenges. (HB14)</i> • <i>I think Tshwane Health District needs to acknowledge the work done in labour wards, as [they are aware of] challenges faced They must also encourage creativity. (HD06)</i> • <i>Constant debriefing from the district managers would have been much appreciated. Reassurance, counselling and group therapies where the health care providers are able to talk about their feelings, fears, attitudes towards this pandemic. (MD01)</i>
		3.4.2 Compensation	<ul style="list-style-type: none"> • <i>We deserve compensation (monetary form) since we never got a salary increase this year. A Covid risk related compensation will really be welcomed. (HA02)</i>

DCST: district clinical specialist team; ESMOE: Essential Steps in Managing Obstetric Emergencies; MOU: midwife-led obstetric unit; PPE: personal protective equipment; PUI: person under investigation