



MINISTRY OF HEALTH  
OF KENYA

# Readiness for COVID-19 tools and continuity of essential health in health facilities and communities



**Preliminary Results from Kenya readiness survey**

**January 2021**

# COVID 19 SITUATION IN KENYA



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- As at 27<sup>th</sup> November 2021, the total confirmed COVID-19 cases were **100,323**
  - Total cumulative deaths were **1,751**
  - All 47 counties have reported cases with Nairobi & Mombasa reporting the highest number of cases



# Overview

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1. Overview of the assessments
2. Frontline service readiness for COVID-19 essential tools
3. Extent to which delivery of essential health services have been impacted by the pandemic
4. Key findings and recommendations
5. Lessons learned and next steps



# Objectives and scope of survey



## Objective 1:

**Assess current and surge capacities of hospitals for COVID-19 case management (& availability of essential tools)**

## Objective 2:

**Assess health workforce (facilities and CHWs) capacities and maintenance of essential health services throughout the pandemic**

Based on country priorities and objectives, Kenya survey included 3 modules (facility and community levels):

	COVID-19 case management capacities	Continuity of essential health services	Community needs, perceptions and demand
Module	Assess current and surge capacities of health facilities for COVID-19 management, (vaccine readiness, therapeutics, diagnostics, PPE, oxygen)	Assess health facility and health workforce capacities to maintain safe provision of essential health services	Assess community health needs, access to care, care-seeking behaviours, barriers, and disruptions to community-based care
Use	Guide rapid deployment and scale up of essential COVID-19 clinical tools and supplies	Detect and track changes in service utilization, service delivery modifications, and staff capacities and protection to guide strategies to mitigate disruptions	Guide strategies and plans to address unmet health needs and eliminate barriers to care

# Methodology and sampling

## Rapid phone survey with frontline service facility managers and CHWs completed in one week (14-21 December 2020)



- Kenya Health Master Facility List (KHMFL) was used as sampling frame (12,758 health facilities total)
- A purposive sample of 132 sentinel health facilities was obtained from the sampling frame with a total of 121 respondents for the facility assessments (C19-CM + CEHS)
- Community assessment was used in a sample of 51 community health workers (CHWs).



Disaggregation		Number interviewed by assessment module			
		Total facilities	C19-CM	CEHS	Community
All		121	74	91	51
Level of care	Community Health Workers	51	n/a	n/a	51
	Level 2 - Dispensaries and clinics	32	0	32	n/a
	Level 3 - Health centres	14	2	12	n/a
	Level 4 - Sub-county hospitals and medium-sized private hospitals	48	45	41	n/a
	Level 5 - County referral hospitals and large private hospitals	22	22	6	n/a
	Level 6 - National referral hospitals and large private teaching hospitals	5	5	0	n/a
Location	Urban	53	46	33	26
	Rural	68	28	58	25
Managing authority	Non-public	31	16	24	n/a
	Public	90	58	67	n/a



## Objective 1:

# Assess current and surge capacities of health facilities for COVID-19 case management (essential clinical tools and supplies)

- ❑ Availability of PPE, IPC items, and COVID-19 safe environment measures
- ❑ COVID-19 medicines (including oxygen)
- ❑ Diagnostic capacities
- ❑ Vaccine readiness and community acceptance
- ❑ Bed capacities

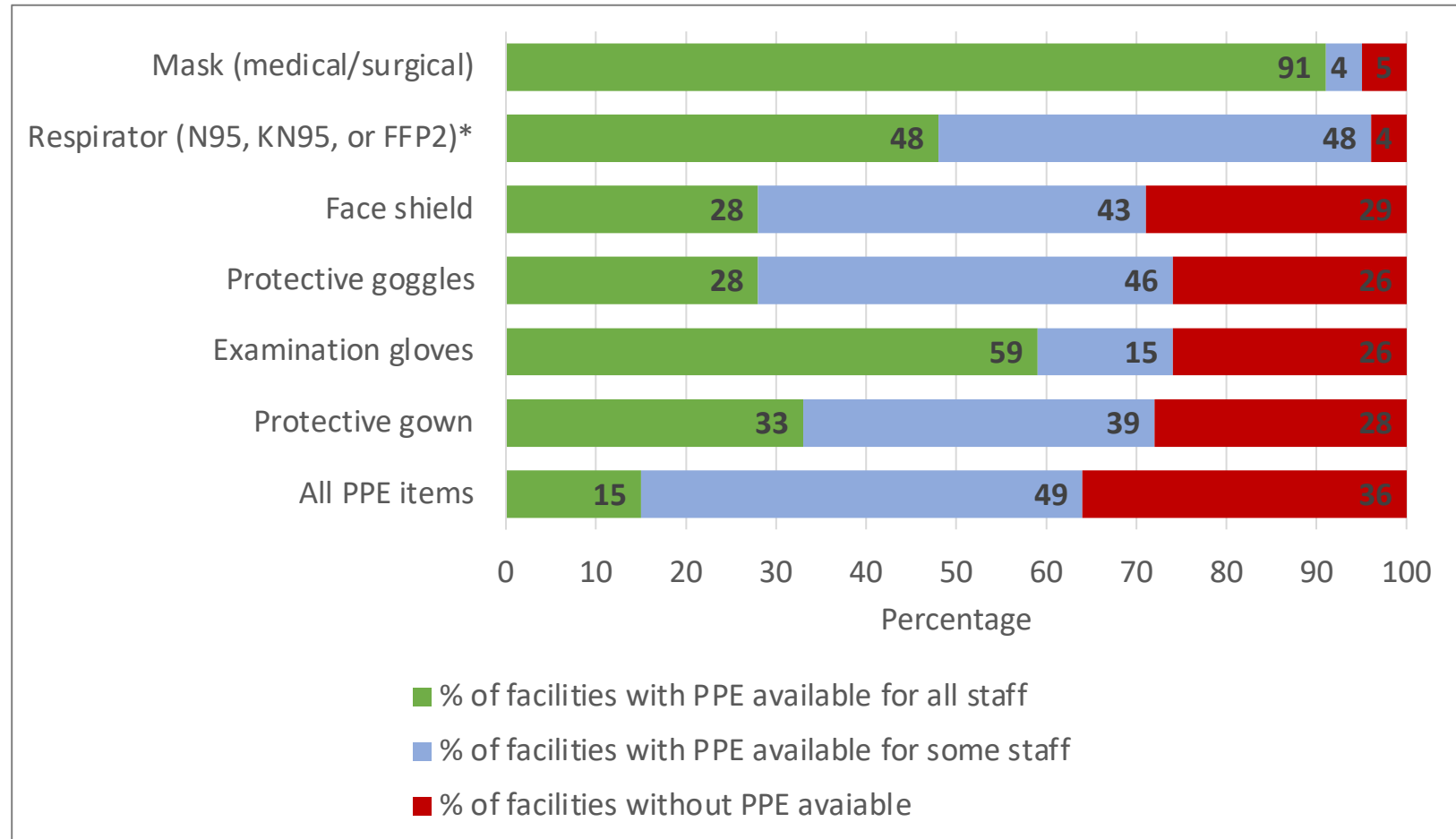


# Availability of PPE in frontline services

## Major gaps in availability of PPE across all health care settings

- ❑ Medical masks are generally available, but not enough PPE for all health workers
- ❑ Only 15% of facilities have all required PPE, and only 48% of hospitals have respirators for all staff.

Percent of facilities with available PPE (n=121)



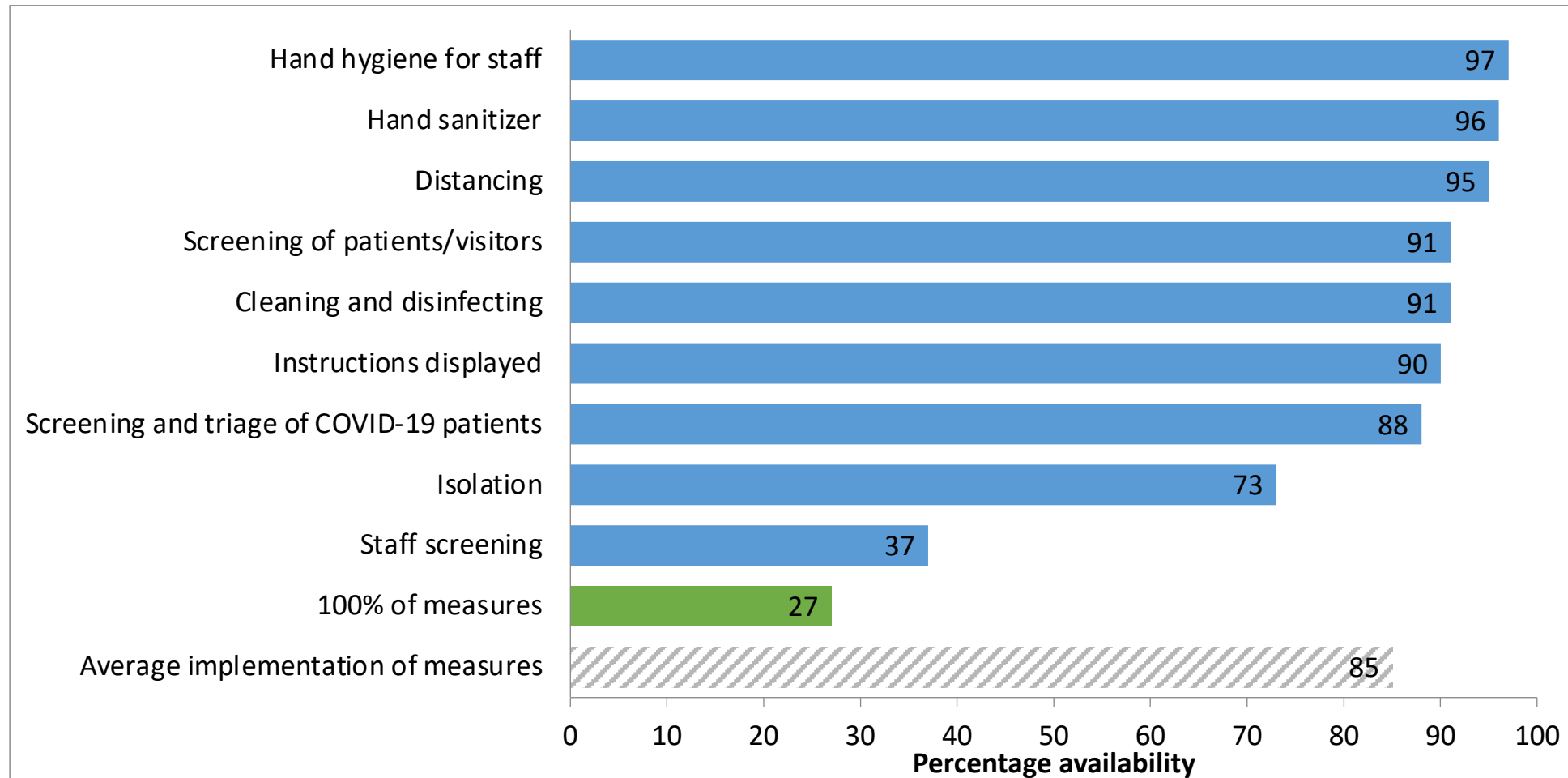
\*Respirator (N95, KN95, or FFP2) availability based only on level 5 (county referral hospitals and large private hospitals) and level 6 (national referral hospitals and large private teaching hospitals)

# COVID-19 safe environment and IPC measures



Overall, the situation is positive, with **most IPC measures in place** in most facilities (but only 1/3 performing screening of staff)

Percent of facilities that have implemented measures to create COVID-19 safe environment (n=91)



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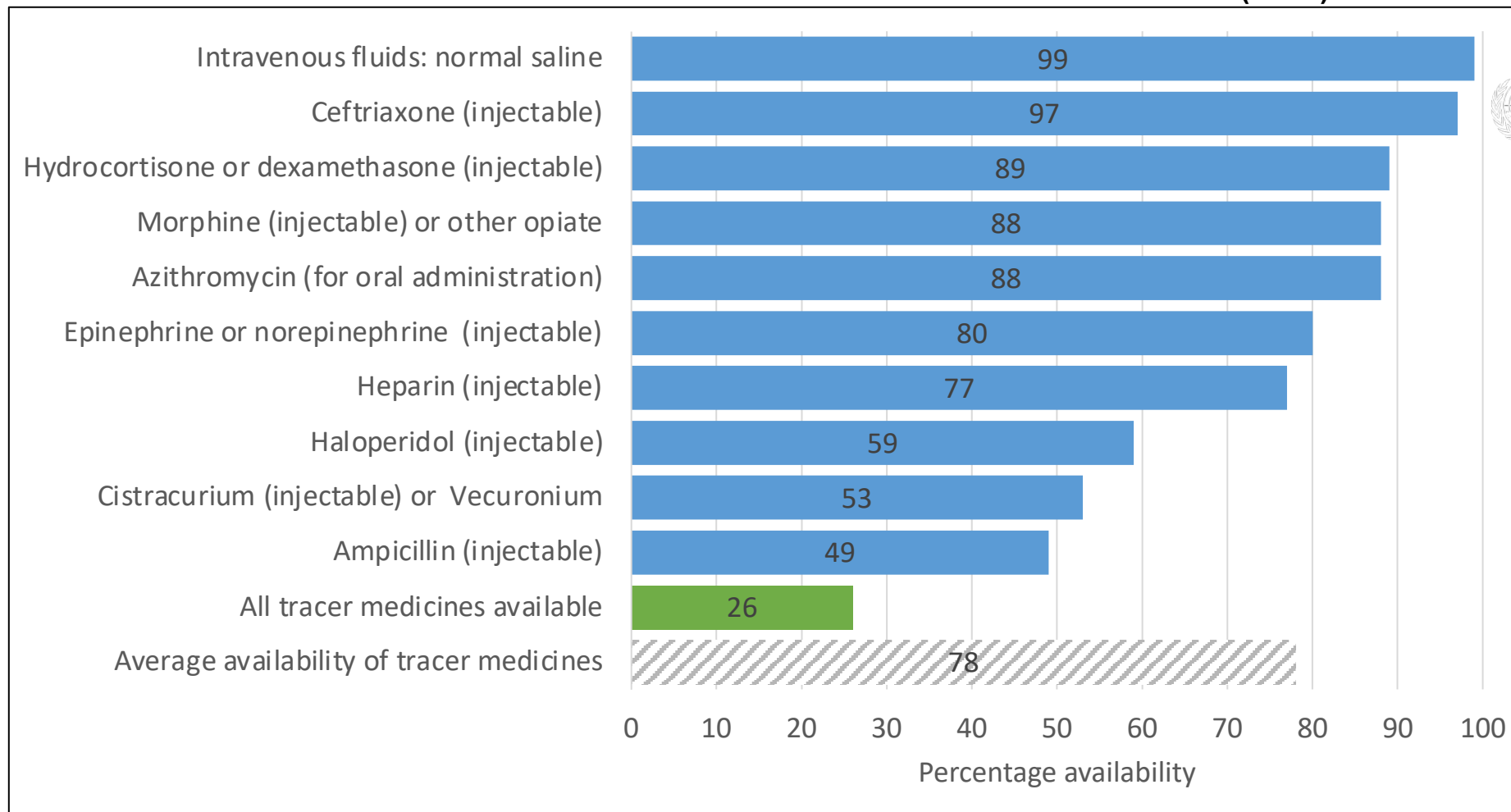


# Essential life-saving medicines

Some shortages in COVID-19 medicines in COVID-19 treatment centres (only about 1/4 of facilities had all 10 tracer medicines)



Percent of COVID-19 treatment centres with available tracer medicines (n=74)

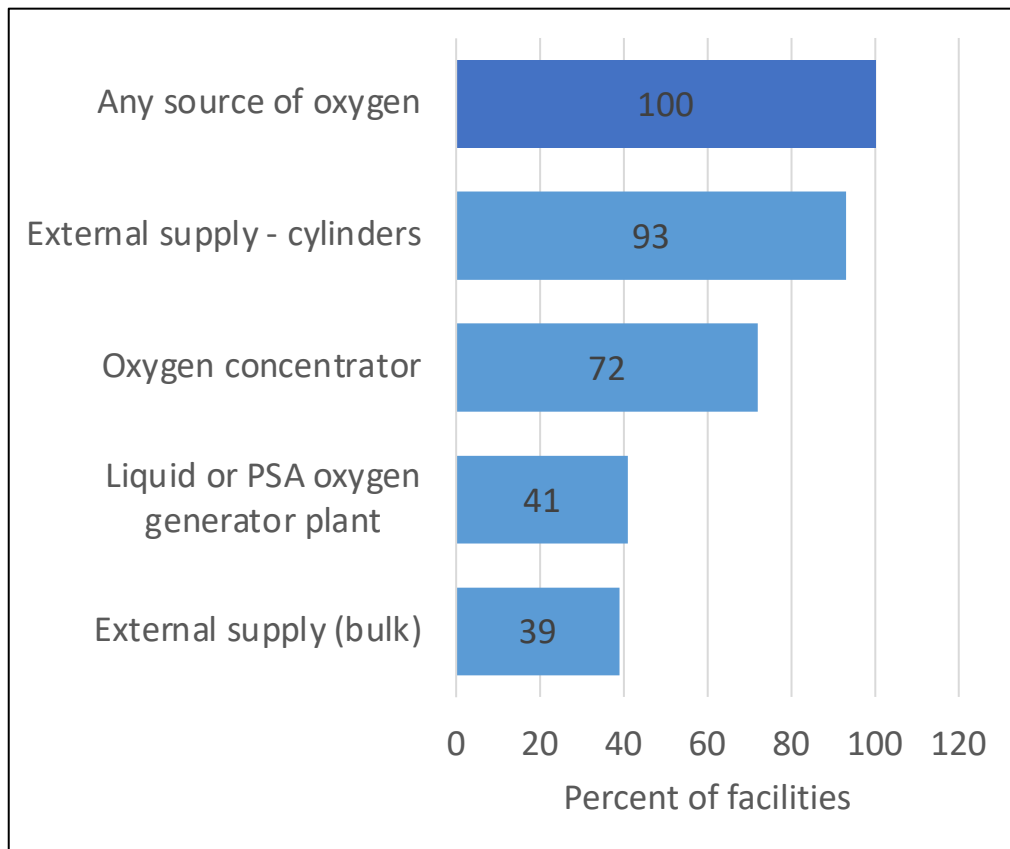


# Access to oxygen

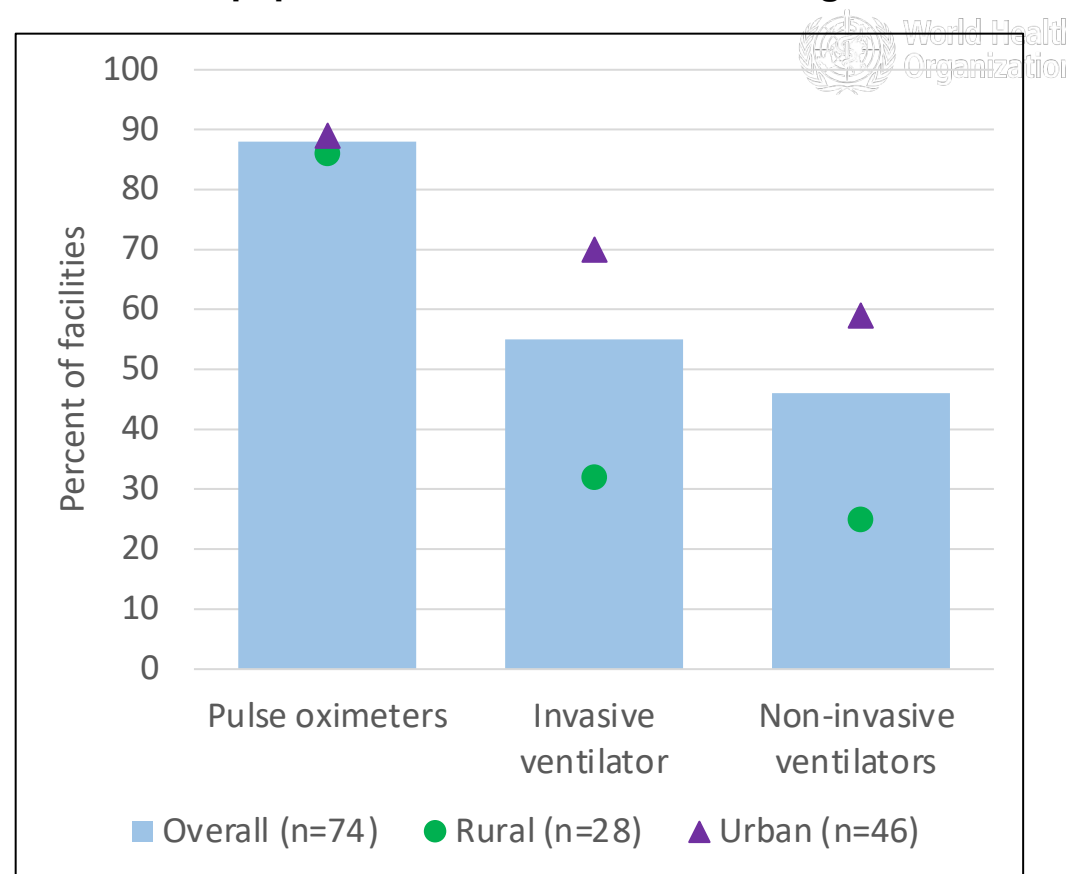
All assessed COVID-19 treatment centres have **access to at least one source of oxygen**; about half have access to invasive and slightly below half non-invasive ventilators to treat critical and severe COVID-19 patients (with situation worse in rural facilities)



Percent of COVID-19 treatment centres with oxygen available (n=74)



Percent of COVID-19 treatment centres with oxygen equipment available and functioning

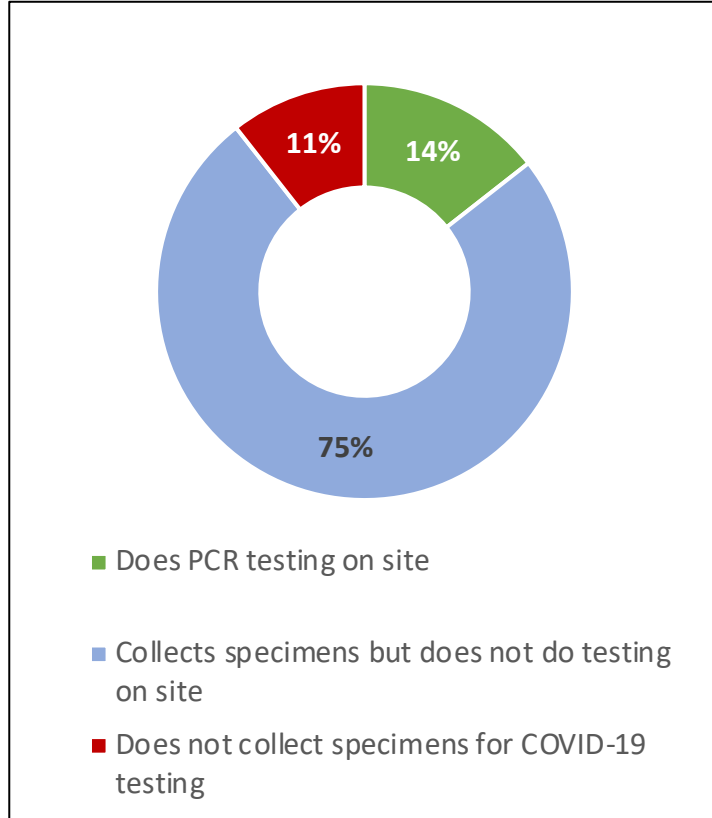


# Diagnostic capacity: Only 1 in 7 COVID-19 treatment centres has PCR testing on site

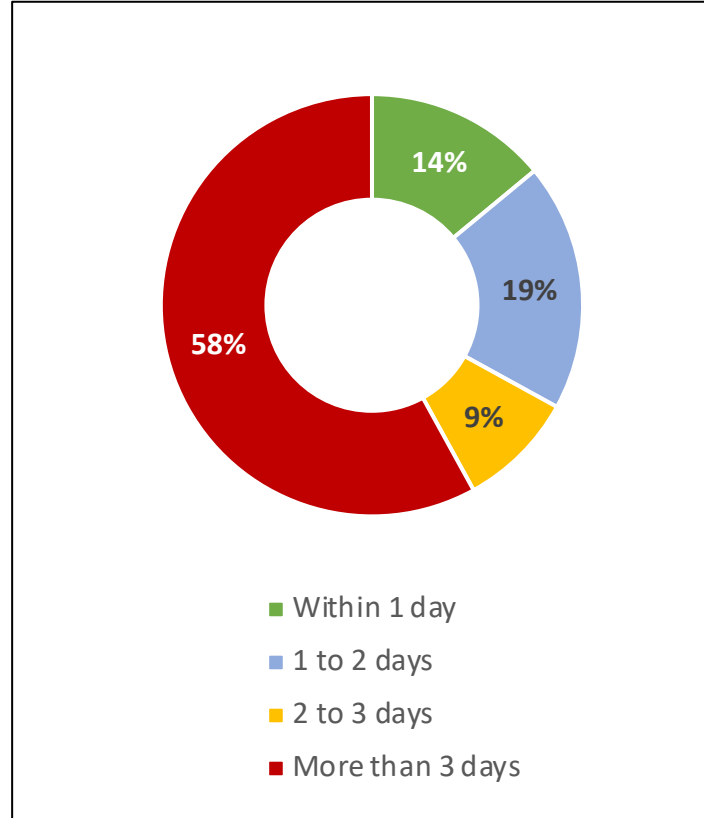


Significant delays in turnaround time for receiving test results (58% facilities wait 3+ days).  
No dispensaries or clinics conduct COVID-19 testing on site and only 7% collect specimens.

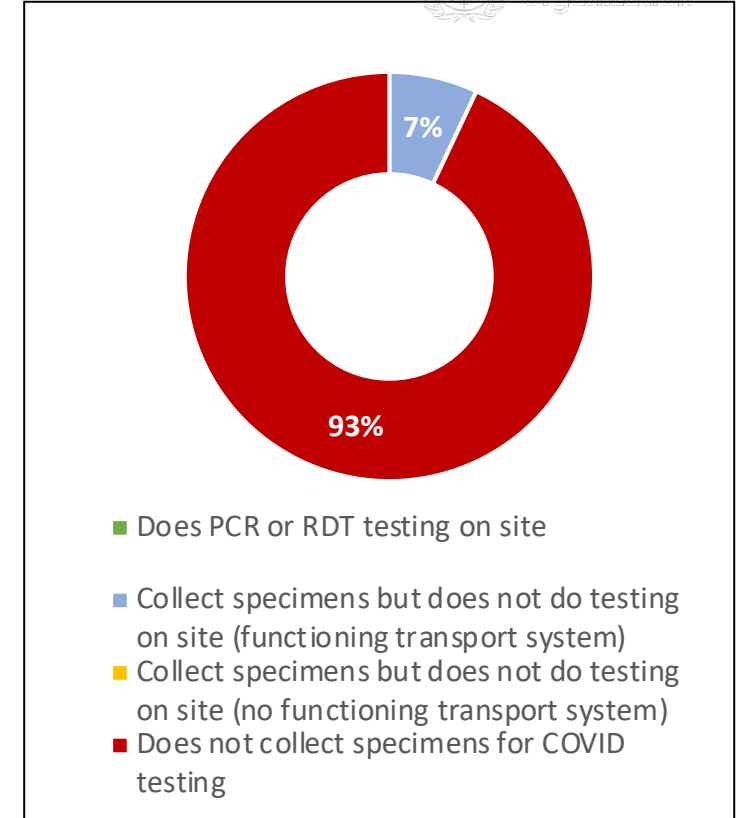
Percent of COVID-19 treatment centres with testing capacities (n=74)



Timeliness of COVID-19 testing results for COVID-19 treatment centres (n=74)



Rapid tests in dispensaries and clinics (n=44)



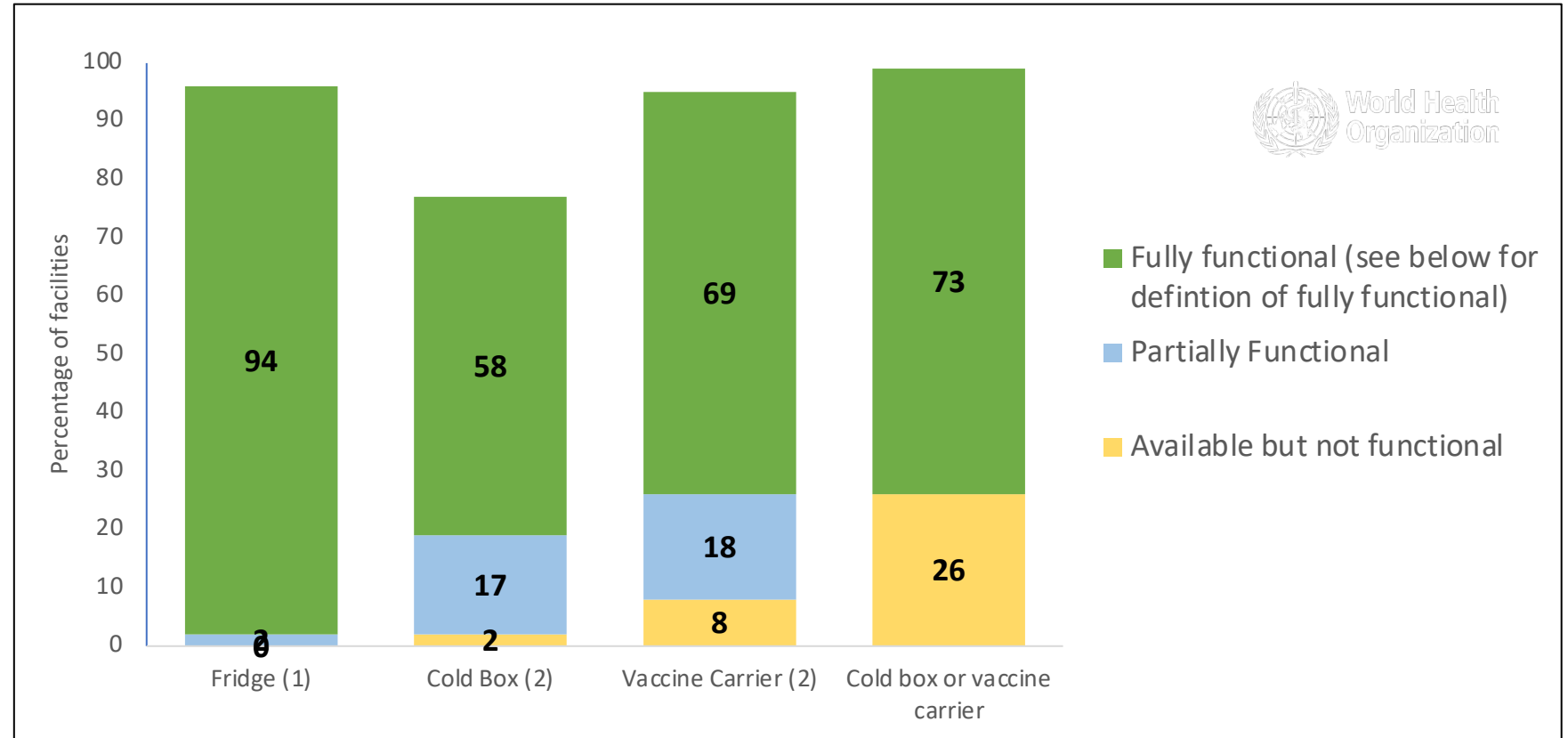
# Vaccine readiness

Most facilities have adequate cold chain capacity (with lower availability in rural and primary care settings) – but will **need strengthening for COVID-19 vaccine deployment**



Percent of facilities with cold chain capacities among those providing vaccine services (n=107)

- Nearly all facilities have functional fridge with temperature monitoring for routine immunization
- Many reported additional needs for fridges, cold boxes and vaccine carriers in case of COVID-19 vaccine introduction.

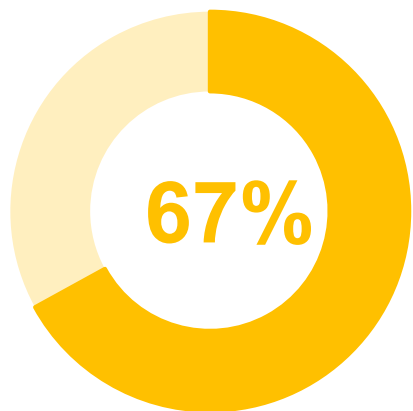


(1) A fully functional fridge has constant temperature monitoring

(2) Fully functional cold boxes and vaccine carriers have full set of icepacks that freeze within one day. Partially functional have at least some icepacks

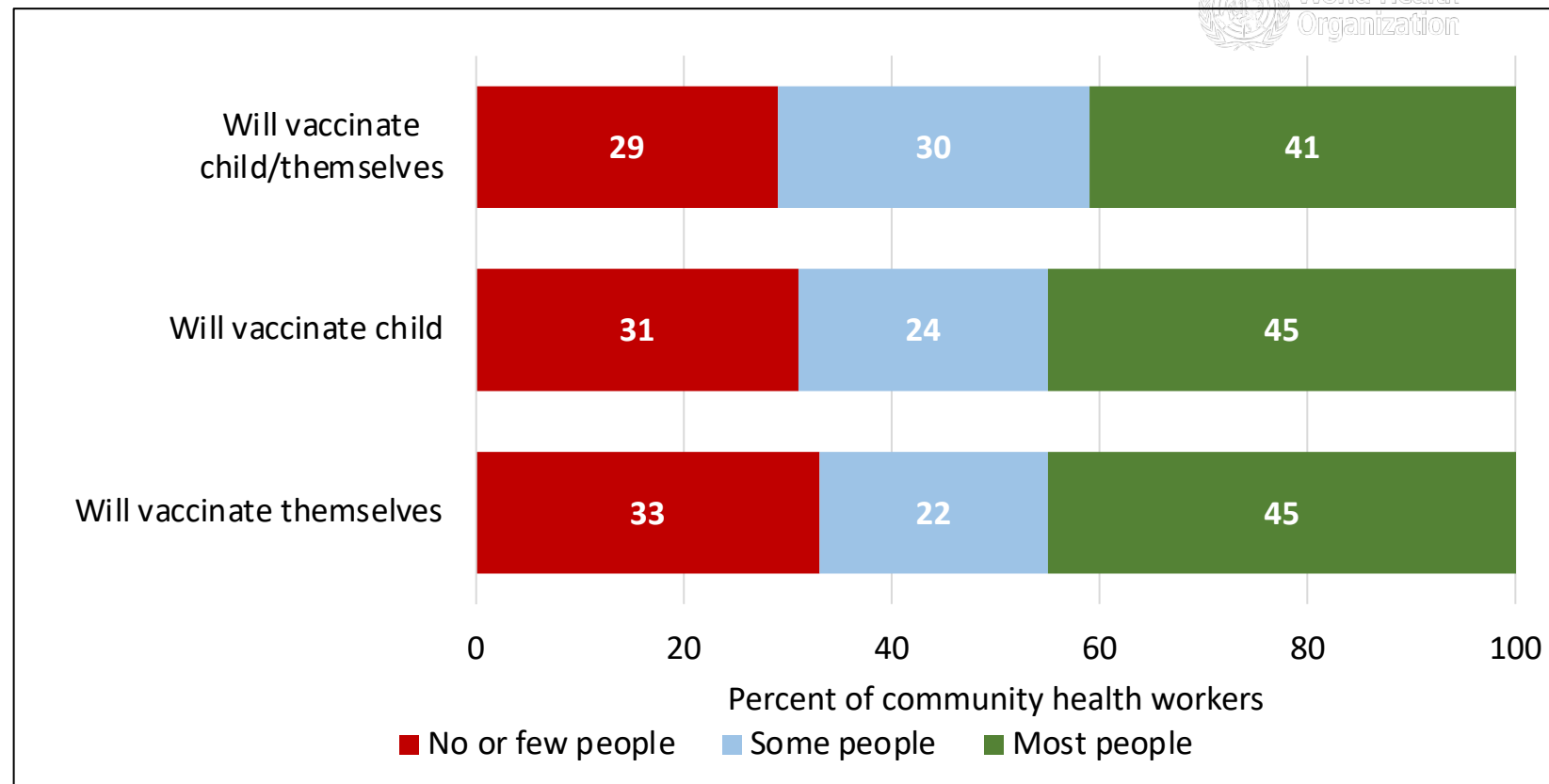
# Community acceptance of COVID-19 vaccination

Communities have high levels of concern about COVID-19 and COVID-19 vaccination (33% of CHWs believe vaccine uptake will be challenging )



of CHWs believe most in the community are worried about COVID-19

Percent of community health workers who believe people are concerned about COVID-19 and will receive COVID-19 vaccination (n=51)

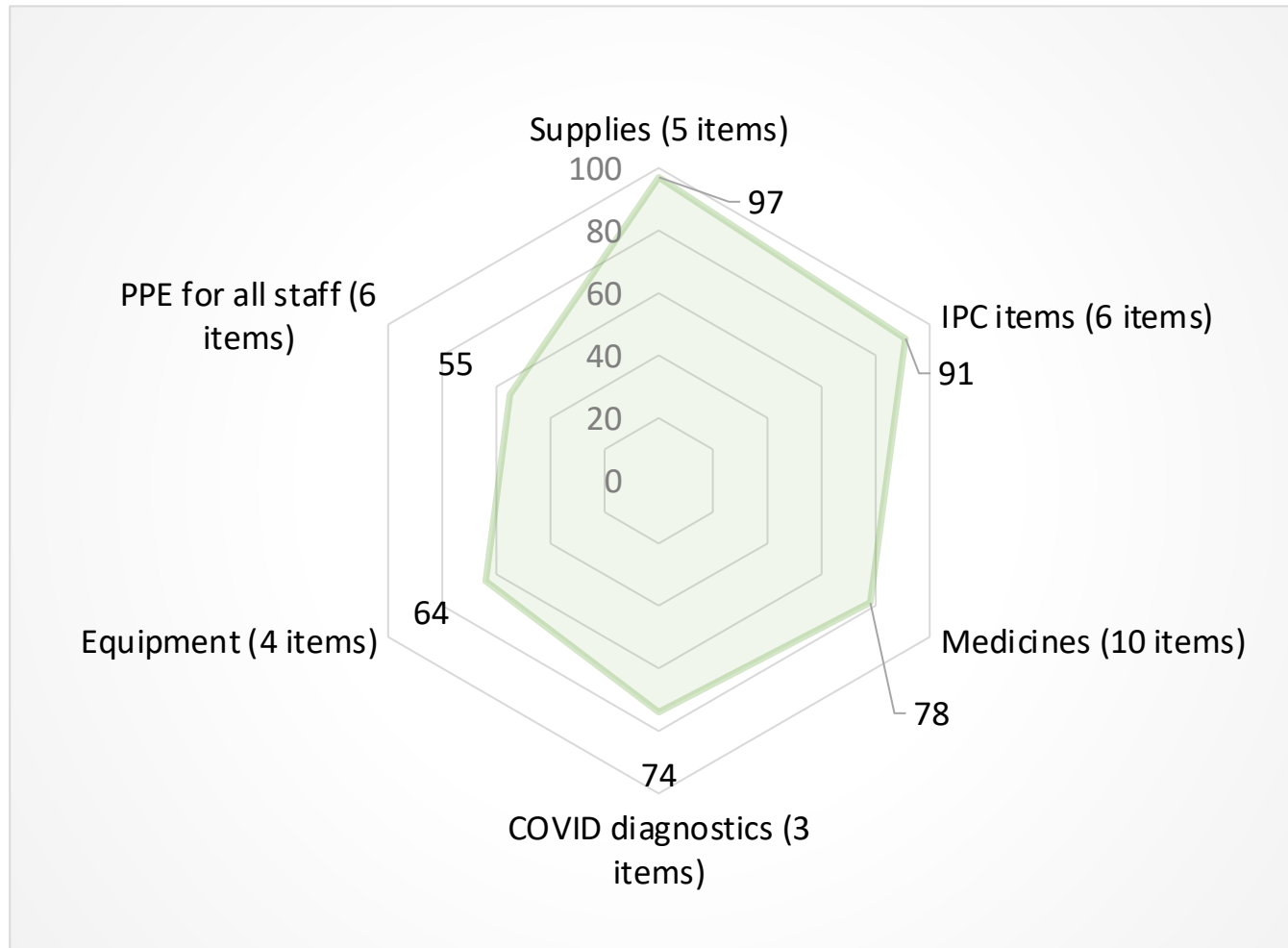


# Hospital capacities for COVID-19 case management

Overall capacities are good, but **major shortages in PPE** (on average, facilities can only provide just over half tracer PPE items to all staff)



Average percent of tracer items available in 91 facilities providing essential health services



## Tracer items

**Equipment (4 items)** – Pulse oximeter, invasive ventilator, non-invasive ventilator, x-ray machine



**Supplies (5 items)** – Syringes and needles, IV cannulas and giving sets, gauze, 5% Chlorhexidine gluconate, Sodium hypochlorite 4-6% Chlorine

**Medicines (10 items)** – Epinephrine or norepinephrine (injectable), Ceftriaxone (injectable), Ampicillin (injectable), Azithromycin (for oral administration), Cistracurium (injectable) or Vecuronium, Haloperidol (injectable), Morphine (injectable) or other opiate, Heparin (injectable), Hydrocortisone or dexamethasone (injectable), Intravenous fluids: normal saline

**PPE (6 items)** – Protective gown, examination gloves, protective goggles, face shield, respirator masks (N95 or FFP2), medical/surgical mask

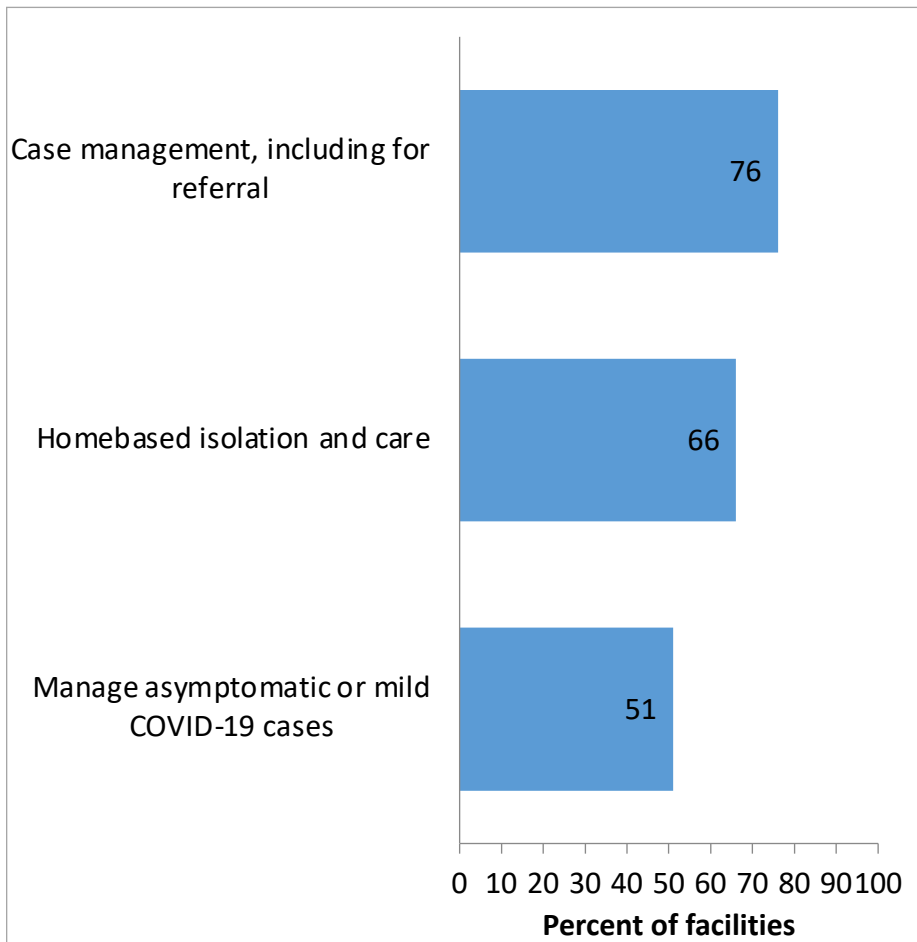
**IPC items (6 items)** – Liquid Soap, bio-hazardous bag, safety boxes, body bags, hand washing stations, hand sanitizer

**COVID-19 diagnostics (3 items)** - Receives test results within three days, have functioning thermocycler, all three specimen collection items (triple packing boxes for transport, viral transport medium with swab, functional transport system)

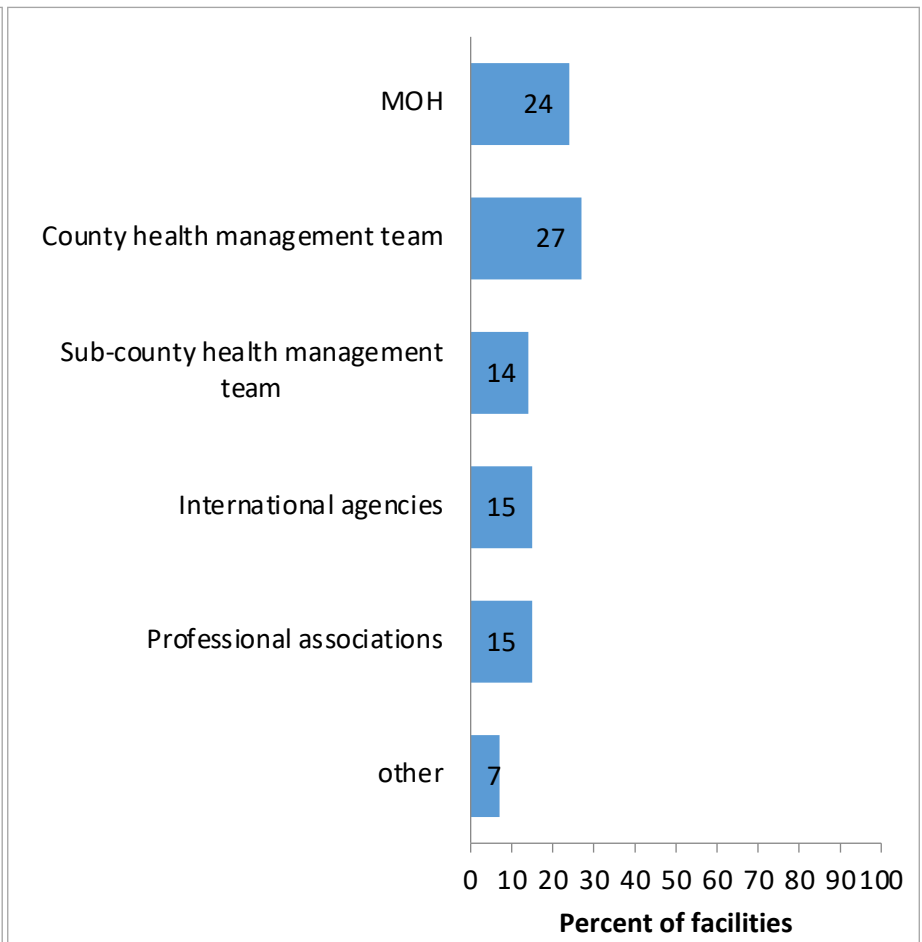
# Availability of guidelines on management of COVID-19 has increased in facilities



Percent of that have received up-to-date information and guidelines to manage COVID cases (n=91)



Percent of facilities that have received up-to-date information to manage COVID cases, by source (n=91)



- Over three-quarters of health facilities (76%) indicated they had received guidelines on case management of COVID-19 including referral.
- Out of the health facilities with guidelines on case management, 53% didn't have them in July 2020.



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## Objective 2:

Assess health facility and HWF capacities to maintain safe provision of essential health services throughout the pandemic



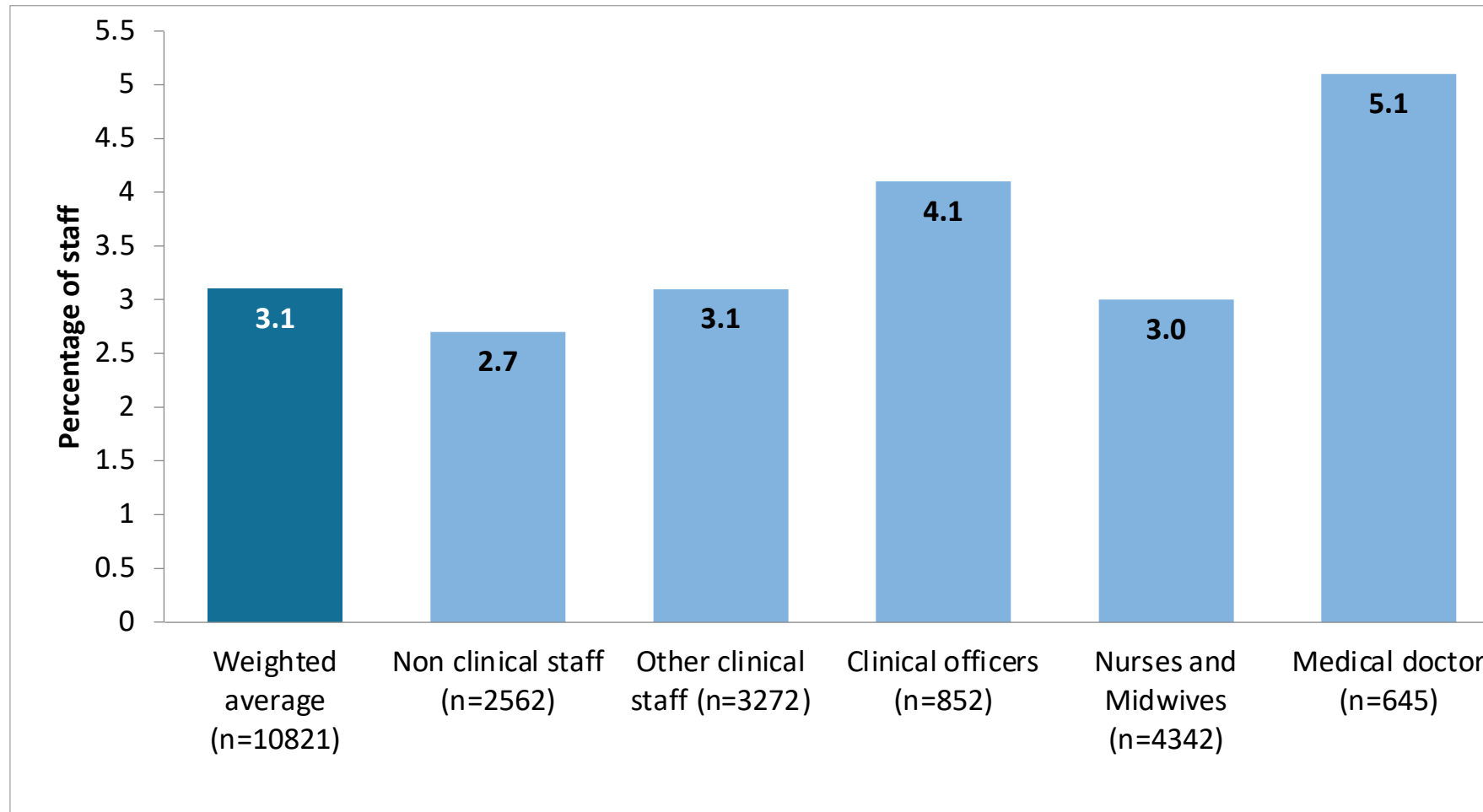
# Health worker /staff infections

In the last 3 months, **5% of medical doctors were diagnosed with COVID-19**

**Overall, 3% of health workers/staff were infected in past 3 months**



Percent of staff diagnosed with COVID-19 in the past three months, by cadre (in 91 facilities)



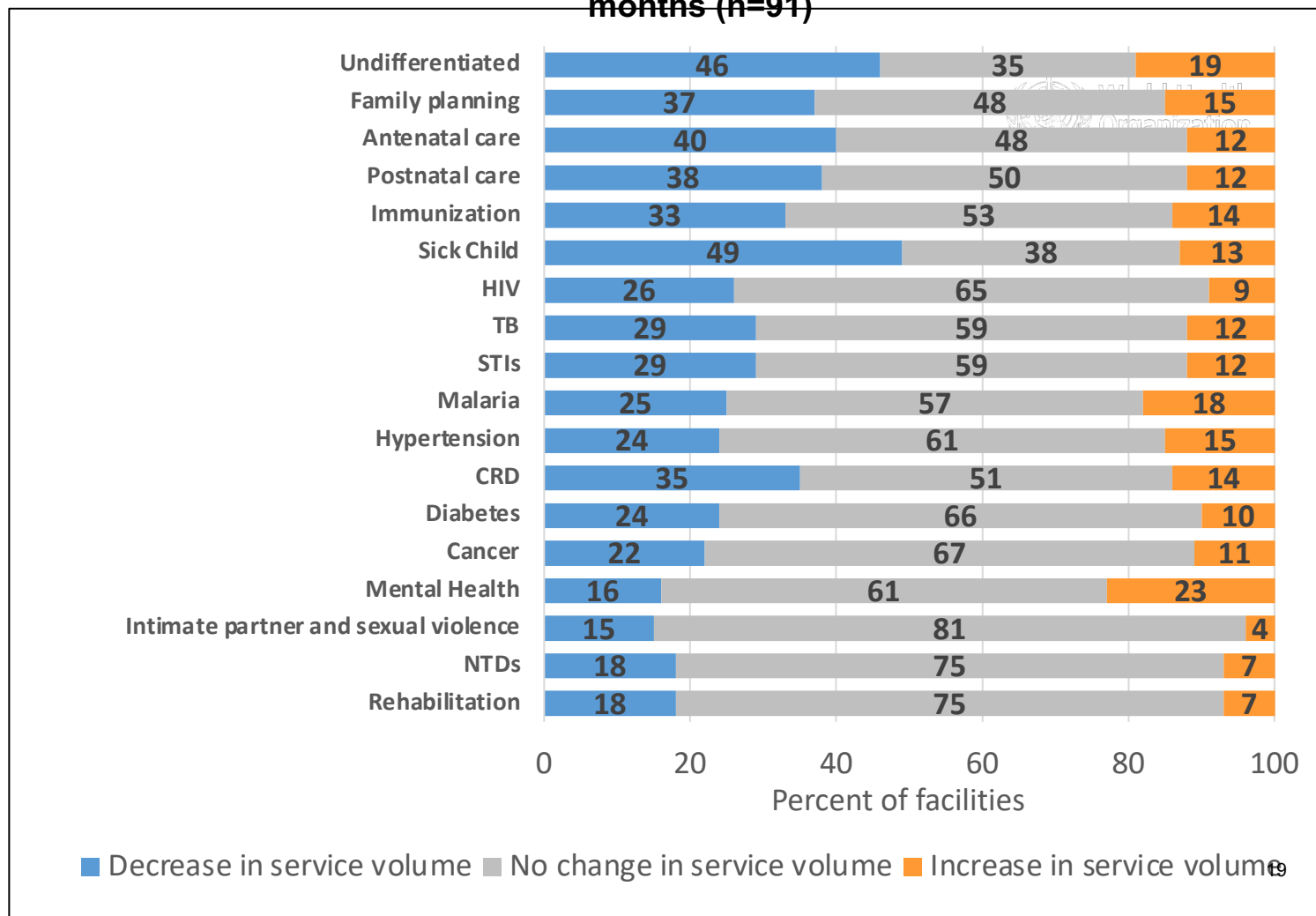
# Percent of facilities observing changes in outpatient service utilization



Disruptions (increases or decreases) observed across all health services

Percent of facilities with changes in outpatient service visits in the past three months (n=91)

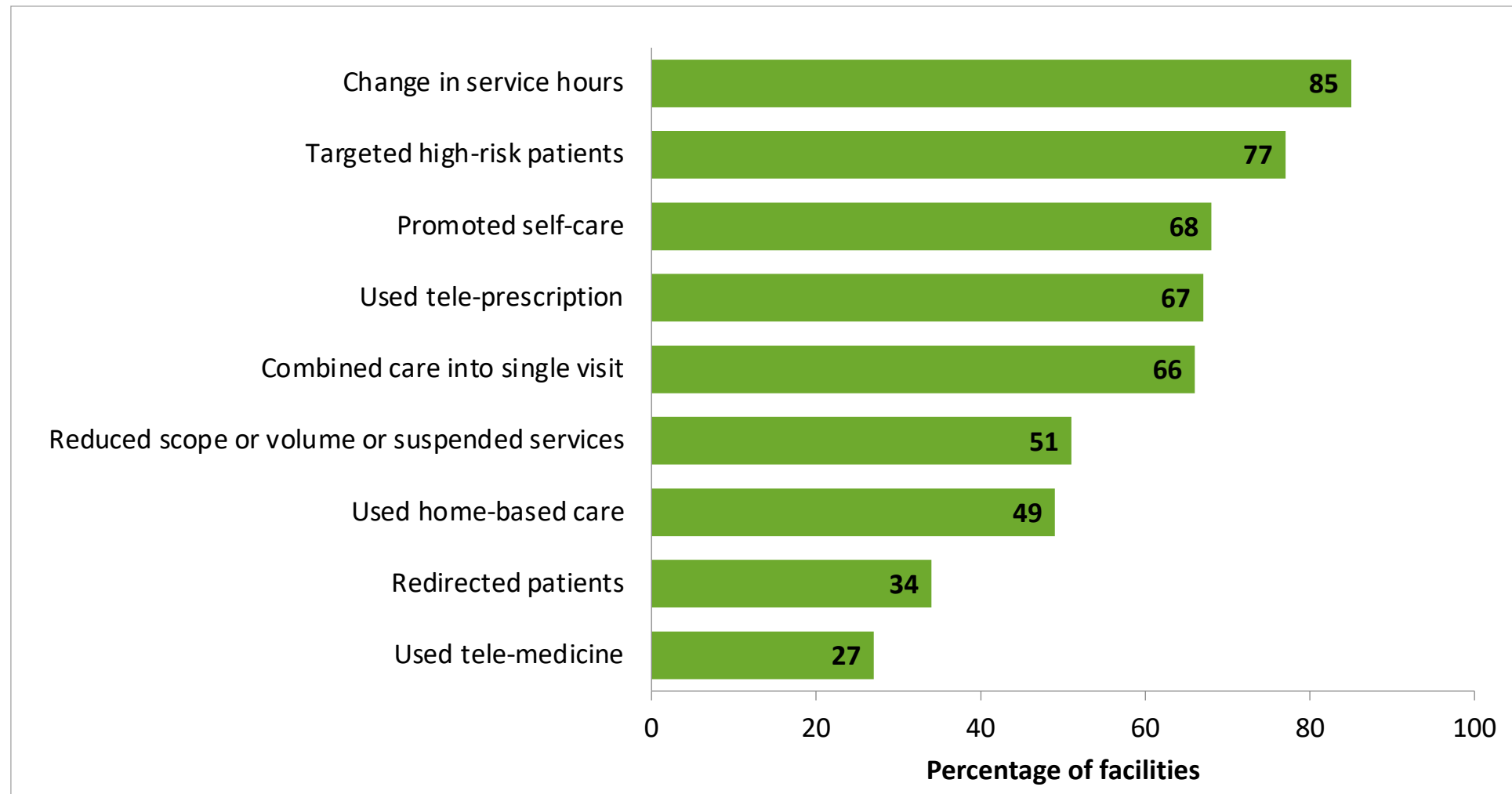
- ❑ About half of facilities (49%) reported decreases in sick child visits
- ❑ Approximately 40% of facilities reported decreases in family planning, antenatal care, and postnatal care
- ❑ 23% of facilities reported an increase in visits for mental health services



# Responsiveness of facilities to maintain essential health services: Modifying services:



Percentage of facilities that modified service delivery strategies in the past three months (n=91)



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# Key findings and implications for action



## Key bottlenecks and gaps

- IPC measures and supplies generally in place, but major **gaps in PPE availability** and staff screening for COVID-19
- Shortages of essential clinical tools and supplies (**medicines + ventilators**) in COVID-19 treatment centres
- Low availability of on-site PCR **diagnostic testing** + delays in turnaround time for off-site testing
- Vaccine cold chain capacity for routine immunization available but facilities need to **strengthen capacities for COVID-19 vaccine** introduction
- **Concerns in communities around acceptance** of vaccine may present challenge. CHWs reported needing **additional support during COVID-19. Fear of contracting COVID-19** is one of the greatest barriers to care
- **Health worker protection** a concern and major gaps in supportive supervision for IPC, mental health/psychosocial support.
- **Changes in utilization** across all services (with greatest increase in mental health visits, and greatest decreases in family planning, ANC, PNC and sick child visits)

## Implications for investment and action

1. Investment and targeting of PPE for all staff and for clients (particularly rural)
2. Strengthen and communicate safety protocols for staff screening
3. Ventilators and COVID-19 medicines to be **ramped up in** COVID-19 treatment centres
4. Diagnostic capacities and processes (on-site + off-site), including rapid tests to be expanded/accelerated.
5. Additional cold chain capacity required at facilities for COVID-19 vaccination
6. Proactive risk communication and community engagement required around:
  - COVID-19 vaccine hesitancy and
  - safe delivery of services to increase utilisation
7. Invest in and conduct more frequent supervisory visits to facilities and provide additional support for health workers
8. Identify and action suitable service delivery modifications to mitigate service-specific disruptions (e.g. telemedicine)





## Lessons learned

- Rapid phone survey approach based on standard modules was rapid, relatively low-cost and safe **in the COVID-19 environment** and provided:
  - **urgently required data with automated real-time analysis**
  - **information needed for decision makers**
- MOH leadership is critical in whole process to assure country ownership and sustainability
- Resource requirements for training are light as compared with other facility survey methods, but does **require good planning and oversight.**
- **Timely and solid pre-outreach** to sample facilities/respondents important to facilitate and speed actual data collection and allows for sharing tools beforehand to allow them to prepare responses.
- Approach allows for **country tailoring of tools and process**
- Useful to have **survey team together in a central location** with good phone and internet connectivity and **survey team requires flexibility**

## Next steps

- **Triangulate other available data** (e.g KHIS, COVID-19 vaccine introduction readiness assessment tool (VIRAT), National pulse survey on continuity of essential health services previous, COVID-case management surveys (July 2020), and epi surveillance etc.
- Rapidly conduct a **dissemination and policy dialogue workshop** with relevant MOH authorities and partners to discuss findings and implications for investments and action.
- Rapidly provide **feedback/share reports with sentinel respondent facilities**
- Prepare for the **next round** (finetuning of tools and procedures) (March 2021) in sentinel facilities
- Use assessments to scale **sustainable real-time monitoring and early warning systems** for future health emergencies

