

COVID-19

Impact on Yemen

COVID-19 poses a uniquely high risk for Yemen. COVID-19 is yet to be confirmed in Yemen, however, **the likelihood of its spread is high** as cases in surrounding countries continue to grow: 392 in Saudi Arabia, 470 in Qatar and 306 in Bahrain.

The country's infrastructure has been devastated by five years of conflict, leaving little capacity to respond. Only 51% of health centres are fully functional. There is limited medicine, equipment and personal protection equipment available and only two testing sites (Sana'a and Aden).

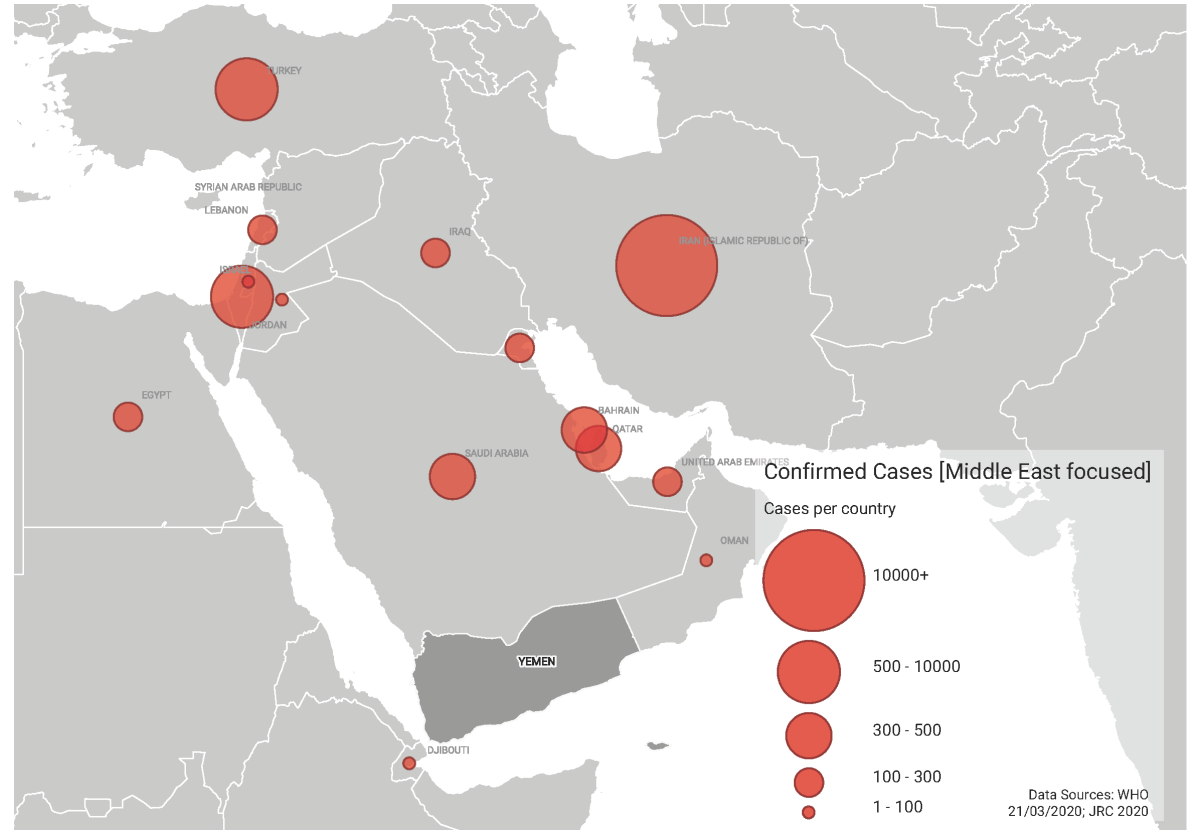
Current conflict escalation, displacement and overcrowding make it difficult to implement protection measures (social spacing, hand washing). Over 3.6 million people have been displaced since the start of the conflict. One third live in camps and informal settlements which are overcrowded and lack proper access to sanitation.

Poor media and lack of trust in public institutions makes it challenging to deliver behaviour change messaging. Yemen ranks 168 of 180 on the 2019 World Press Freedom index.

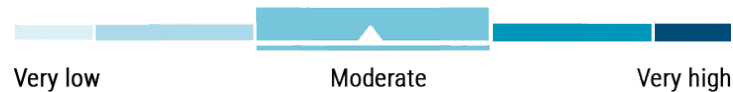
Yemen relies on imports for 80 to 90% of its basic needs, making it particularly vulnerable to disruptions in the world economy.

COVID 19 risks are pulling scarce resources from other lifesaving health responses including cholera and dengue.

The crisis could also provide a guise for parties to the Yemeni conflict to impose new measures of control on humanitarian action and vulnerable, marginalized groups, such as access restrictions for fleeing populations and assessing remote project sites.



PROBABILITY



IMPACT



Limitations

The COVID-19 response provides many sources of information. Care is needed to identify the most reliable sources.

Often information is outdated by the time it has been identified. Conflict and displacement in Yemen is fluid, and preparation measures change daily.

Information gaps exist for much of Yemen as severe access restrictions for humanitarians remain in place.

This report includes information on COVID-19 in Yemen available as of 22 March 2020.

About this report

ACAPS held a joint analysis session on 10 March 2020 with 21 participants from 12 organisations to map key risks that may impact the humanitarian situation of Yemenis for the coming six months. This report is based on the feedback and results of the workshop, publicly available data and reports, and key informant interviews with Yemeni experts.

This report is a part of a series of products produced by ACAPS and partners to understand how the pandemic affects vulnerable populations globally. We know that rapid changes to the environment and context can bring about similarly rapid changes in social dynamics. This can exacerbate underlying tensions and pre-existing vulnerabilities. We also know that measures used to limit disease outbreaks can impact protection; freedom of movement and access to key services. Politics, social dynamics, trust and information have an important influence on how mitigation measures are implemented and received by the populations concerned.

Risk COVID-19 Epidemic in Yemen

Rationale

An outbreak of respiratory disease caused by a novel coronavirus (abbreviated “COVID-19”) (CDC 2020), was first detected in Wuhan, China in December 2019. Cases have now been confirmed in over 100 countries. The virus quickly spread to neighbouring Asian countries, and then to countries in the Middle East and Europe and was declared a pandemic on 11 March 2020 (WHO 11/03/2020).

Despite precautions issued by Yemeni national authorities and WHO to minimise the risk of virus transmission, there is a high risk that Covid-19 spreads rapidly throughout Yemen. It is possible there are already infected persons in Yemen that have not been detected. It is also unclear if Yemen has the capacity to enforce border restrictions. Informal smuggling networks, migration and displacement are likely to continue, even in the midst of a massive outbreak. Effective self-isolation of all infected persons is improbable, given that the carrier is often unaware that he/she has the virus for up to two weeks.

Yemen has limited facilities for testing. Currently only two sites (one in Sana’a, one in Aden) can carry out testing and they currently only have capacity to administer a few hundred tests. The probability that in-country infections occur is high.

Initially it is likely there will be no knowledge that Covid-19 is in Yemen due to the limited number of test kits and fear of reporting. The virus would likely spread to many others

before the authorities realise it is in country. Within a short timeframe, crisis-affected vulnerable populations become infected.

The virus spreads exponentially as in other countries, exacerbated by poor living conditions, the lack of personal protection equipment, high population density, poor hygiene practice, and a culture of gathering in groups such as mosques and markets which makes enforcement of containment measures such as social distancing challenging to enforce. The close proximity of dwellings, insufficient access to hygiene products and clean water, and lack of public awareness also contribute to the spread of the virus especially among vulnerable people groups in Yemen; especially IDP informal settlements or crowded community dwellings with slum like dwellings (Muhamasheen).

An increase in rains during the monsoon season (April-August) could place further strain on the healthcare system as cases of cholera may increase across the country. Any decrease in income or purchasing power or availability of water would also create conditions conducive to the spread of the virus.

Possible Indicators/Triggers:

- Confirmed cases increase in Amman, Djibouti and surrounding countries
- Confirmed cases increase among humanitarian staff recently in Yemen
- Confirmed case(s) in Yemen
- Water prices in Yemen rise
- Continued air travel into Yemen
- Social media discussion of the virus increases rapidly
- Anti-humanitarian media increases
- Northern and southern authorities implement ill prepared, poorly planned or contradictory preparedness measures
- New large-scale displacement from traditional international entry points into Yemen (Aden, Sana’a, Hadramawt, Abyan)

Impact

By the time COVID-19 is identified in Yemen, it will likely be spreading rapidly through the population. While a proportion of cases will be hospitalised, hospitals will struggle to implement sufficient protective measures in COVID-19 treatment wards. This may cause patients with other ailments to decide not to visit healthcare facilities for fear of contracting COVID-19.

Within a month of the first case being registered in Yemen, many deaths are likely to have been recorded and increasingly stringent movement restrictions begin to be instigated. Nevertheless, the number of infections and deaths will continue to rise sharply. Death rates are higher than the global average due to the underlying poor health conditions, lowered immunity among a malnourished population, and limited medical resilience in the general population.

Travel restrictions imposed by Yemen or its neighbors further reduces Yemeni's access to health services in Jordan and other countries in the region. Patients with underlying health conditions in need of chemo, dialysis, rehabilitation will struggle to gain proper care. Deaths from other chronic diseases (non COVID 19 related) increase due to the overstretched health system, lack of personal protection equipment, and reluctance of the sick population to access healthcare facilities.

In addition, the price of food and other essential items are likely to rise as demand soars and the movement of goods becomes increasingly restricted at local levels. Low income households are unable to stock up on goods for quarantine or self-isolation. Importers are still able to bring in goods, but face greater costs and challenges distributing them across the country. Markets, shops, and local businesses close in an attempt to control the spread, negatively impacting the livelihoods of Yemenis in a struggling economy and increasing food insecurity (more than a third of households currently consume inadequate diets)(WFP Feb 2020). The government of Yemen and Houthis enforce contradictory measures further limiting movement between the north and south and attempting to enforce each side's control over the population and economy.

Anti-humanitarian propaganda increases as the international community is blamed for introducing the virus to Yemen (rightly or wrongly). Humanitarians face a backlash in local media and social media causing a reduction in community acceptance. Tight access restrictions are placed on humanitarian operations, either by the authorities or organisations themselves, further undermining the effectiveness of the response.

The outbreak is likely to spread in high density urban areas, specifically Aden, Hadramawt, and Sana'a, as well as in areas where displaced populations are still very fluid, such as Marib. This has the potential to lead to more hostility from host communities who perceive IDPs as "foreigners bringing disease to the community."

Current Situation in Yemen

Five years of war in Yemen has greatly limited the capacity of communities and government to prepare for and respond to the global COVID-19 pandemic.

Lessons from other contexts shows that containing the spread of the virus relies on four factors: medical capacity; supply capacity; movement control capacity, and information management.

Medical capacity

Yemen's weakened healthcare system will struggle to screen, test, and contain the epidemic (CERAHGENEVE 03/2020).

Since 2015, there have been 142 attacks on hospitals and medical facilities across Yemen. Only 51% of health centres are fully functional; with limited medicine and equipment available (UN 03/18/2020).

As of 23 March 2020, Yemen has the capacity to administer a few hundred COVID 19 tests at two facilities, one in Sana'a, one in Aden. WHO is working to procure thousands more and plans to post updates regarding number of ventilators, beds, and personal protection equipment available in Yemen on social media platforms in the coming days (WHO 03/23/2020).

Yemen does not have enough qualified health personnel. 53% of operational facilities do not have general practitioners and 45% lack specialists. There are an estimated ten health workers per 10,000 people in Yemen, well below the WHO minimum benchmark of 41 per 10,000 (4.1 per 1,000) (WHO 2016). Large amounts of health equipment is malfunctioning and many health personnel have not received salaries for two years.

The lack of safe water and proper sanitation services has increased the risk of communicable diseases (OCHA 2020).

The World Health Organization (WHO) is working with the Yemen Ministry of Health (MoH) to prepare for the potential entry and spread of COVID-19 in line with the eight pillars of WHO's Strategic Preparedness and Response Plan. Health actors are developing contingency plans that focus on logistics and supply chains and the identification of possible quarantine locations (WHO 03/18/2020).

Supply capacity

Yemen currently has no stocks of personal protection equipment for COVID. Scanners, thermometers, ventilators and monitors are also becoming increasingly difficult to find in the market in Yemen. This can partially be explained by the growing demand for support and equipment in surrounding countries, further overstressing any form of assistance that could be extended to Yemen. The international market is struggling to

meet the current demand for medical equipment, leading to shortages of personal protection equipment in many countries (ACAPS discussions with operational actors on 3/18/2020).

Movement control capacity

Ongoing conflict and displacement will also make it difficult to control the spread of COVID 19 in Yemen. Over 3.6 million have been displaced since 2015. Fighting in Al Jawf and Marib governorates has displaced over 34,000 people since 21 January 2020 and almost 40,000 people were displaced countrywide in the first week of March 2020 (IOM 03/08/2020, 18/03/2020).

IOM is coordinating the response to migration and IDP movements as conflict continues in Yemen. OCHA is coordinating the overall humanitarian response with 121 humanitarian partners.

In Southern Yemen, the Government of Yemen suspended commercial flights to and from the country's airports for two weeks beginning March 18 and ordered school closures (WFP 03/22/2020). Humanitarian flights are exempt from the ban. The government is coordinating with WHO, the King Salman Humanitarian Aid and Relief Center (KSRelief) and humanitarian agencies (Arabnews 03/18/2020).

In Northern Yemen, the Houthis, have closed land borders with the government-controlled parts of Yemen and ceased all incoming flights, including the UN Humanitarian Air Service (UNHAS). Schools are also closed. The last UNHAS flight to the north was on 16 March 2020.

The Houthis also announced a ban on the use of finger print technology. This decision could set back over a year of negotiations between the Houthis and WFP to allow a digital registration system for aid recipients (New Humanitarian 03/17/2020).

There are presently no restrictions on humanitarian cargo into Yemen. This should allow the distribution of necessary personal protection equipment (once procured) and other equipment if COVID-19 enters Yemen.

Information management

The Ministry of health, along with WHO's rapid response team and surveillance team, are disseminating information on COVID-19. WHO has partnered with facebook to provide culturally sensitive information sessions and the latest COVID-19 updates along with technical guidance. WHO plans to provide a phone number for Yemenis to call and ask questions specific to their needs (WHO 03/23/2020). However, the weak status of Yemen's media, lack of trust in international and national institutions, and the propensity for rumours to circulate on social media will make it difficult to deliver effective health behavior messaging (see below).

Misconceptions of COVID-19 in Yemen

False narratives surrounding coronavirus can undermine important preventative measures that health care professionals are working to encourage. In Yemen, information can easily be manipulated by actors seeking to further political and economic goals. Both sides of the conflict are already using COVID 19 to push long standing policy agendas. The Government of Yemen has urged residents living in Houthi controlled areas to adopt the new riyal (largely opposed by Houthis) while the Houthis urge residents to use electronic currency (Arabnews 03/18/2020).

The arrival of COVID-19 into Yemen would exacerbate existing political tensions. Mohammed Ali al-Houthi, President of the Houthi Revolutionary Council, announced that the Houthis will hold the Saudi led Coalition responsible for any case in Yemen, since they are in control of air, sea, and land ports.

Social media is contributing to international and regional tensions. Mohammad Ali al-Houthi widely shared the twitter hashtag "Corona is manufactured in America." A Jordanian freelance journalist used the hashtag #Qatar is Corona. She later recanted, but the initial hashtag continues to circulate widely (MEI 3/20/2020).

The international community does not currently know a lot about how Yemeni communities are perceiving the virus, but initial indications suggest that more than 300 active rumours are spreading widely. WHO is currently investigating the rumours with plans to address them via their social media platform (WHO 03/23/2020). ACAPS Yemen analysis hub will continue to generate learning on common misconceptions of COVID-19 in collaboration with INGO and UN agencies in the coming weeks.

Compounding Factors

Continued Internal Displacement

Individuals displaced by war in Yemen are living in crowded conditions where social distancing is a great challenge. Displaced families are often confined to overcrowded camps or cities where diseases, such as COVID-19, can spread rapidly through the population (IRC 16/03/2020).

Poor Public Health Conditions

Overcrowded and sub-standard living conditions reduce or inhibit the ability to follow recommended public health measures. This especially affects displaced populations and those living in camps or camp-like settings and people who live in congested urban settlements. Crowded living conditions pose barriers to adhering to the self-quarantine advice, which puts others at risk. In Yemen, 53% of operational facilities do not have general practitioners and 45% lack specialists. There are an estimated ten health workers per 10,000 people in Yemen, well below the global standard of 41 per 10,000 (4.1 per 1,000) (WHO 2016).

Lack of access to adequate sanitation and hygiene facilities reduces the ability to follow recommended steps in reducing COVID-19, such as washing hands with soap (IASC 17/03/2020) (NRC 10/03/2020). Obtaining accurate information is also critical posing another challenge to vulnerable communities (NRC 10/03/2020). Displaced populations often face restricted access to health care, which may make them more vulnerable to COVID-19.

Cholera Outbreak

In 2019 suspected cholera/acute watery diarrhoea cases in Yemen increased by 132% compared to the previous year (2018). The outbreak peaked in week 14 from April 1-7, during the rainy season. To date, more than 56,000 suspected cases have been recorded in the first seven weeks of 2020.

Panic surrounding COVID-19 can lead to the draining of supply and resources from the cholera response as rainy season begins. Planned activities will reportedly stop from March – June 2020 due to donor pull out in Ibb, Taiz, Hudaydah, and Hajjah cholera response (ACAPS discussions with operational actors on 3/23//2020).

Any restrictions placed on humanitarian response for access and surveillance to targeted households and communities will result in a greater spread of cholera across Yemen without proper intervention (Oxfam 3/09/2020).

Economic Measures

Yemen is likely to be particularly exposed to disruptions in global supply due to its heavy reliance on imports. Its impact on supply chains and financial markets will vary greatly among countries and have long-term consequences. Research on previous pandemics suggest negative long-term effects on the economic growth of poor countries as it was the case with the 2014 Ebola crisis (Madhav et al, 2017). Among short-term threats are the risk of shortages, production decline, price increases as well as the loss of income. Yemeni migrant workers abroad are likely to face challenges in securing income, further reducing remittances flowing into Yemen; a primary source of income for Yemeni families trapped in war.

Countries where health systems have a low surge capacity are at a particular risk to run into shortages of medical supplies and equipment (Madhav et al, 2017).

Political Instability

A disease outbreak in Yemen can contribute to instability and existing issues surrounding a lack of trust in actions taken by authorities, information they provide, or role of security forces in the response.

Food Insecurity

Disruptions to supply chains and production can cause delays or shortages of goods across the world that can impact on humanitarian response. Pre-existing food insecurity in Yemen and a heavy reliance on imports, can further deteriorate the humanitarian situation in Yemen (US Embassy 03/2020).

International Funding

It remains unclear how the Covid-19 pandemic will affect donor allocations against the background of the risk of a recession and increased needs within donor countries as a result of the pandemic. If funds are directed to an international COVID-19 response it may be a redirection away from existing donor priorities (TNH 12/03/2020).

ACAPS Risk Methodology

The objective of ACAPS risk analysis is to enable humanitarian decision makers to understand potential future changes that would likely have humanitarian consequences. This risk analysis is based on ACAPS Risk Methodology Note ([read more about ACAPS risk methodology](#)) using the chain of plausibility approach to risk analysis.

Risk analysis depends on a solid understanding of the context and on investigating the interaction of the variables that cause or resist change. It is a process that should be repeated at regular intervals and the change in risk recorded overtime.

Risk analysis is not an exact science, an event identified by one analyst as a hazard, might be identified by another as a trigger for a different event. This is of little consequence; the important issue is that the sequence of events and a hazard are identified.

Risk is a function of Severity and Probability. The Probability of a risk does not need to be high for it to be of concern.

ACAPS will provide updates of the risks every six months, in order to take into consideration how crisis developments might change the chain of events and to track which hazards materialise. ACAPS will also conduct monthly internal monitoring of key risks and provide updates and alerts as risks evolve.

Figure: Variables considered in Chain of plausibility approach to risk analysis. 3/2020

