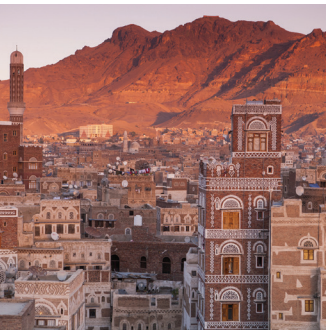
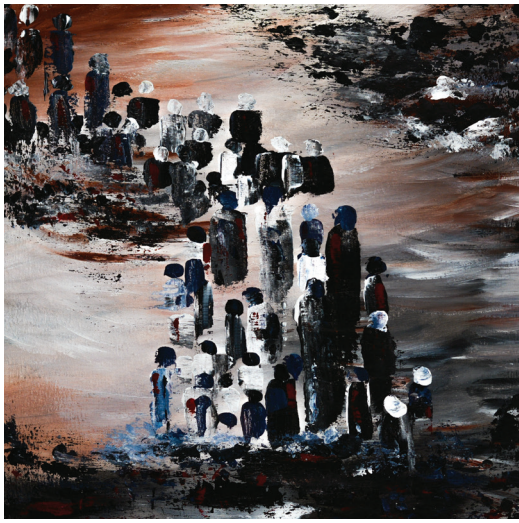
PeaceRep
Peace and Conflict Resolution Evidence Platform



RESEARCH REPORT: COVID-19 SERIES



Pulling the Pieces Together

Health and community actors as levers of local response in Taiz and Hadhramaut, Yemen

Robert Wilson and Raiman al-Hamdani

This report is part of a body of work and a set of connected research projects on Covid-19, peace, and conflict. Please visit https://peacerep.org to find out more about our research projects on Covid-19.

Authors: Robert Wilson and Raiman al-Hamdani
PeaceRep: The Peace and Conflict Resolution Evidence Platform
School of Law
Old College
The University of Edinburgh
South Bridge
Edinburgh
EH8 9YL

Tel. +44 (0)131 651 4566
Fax. +44 (0)131 650 2005
E-mail: peacerep@ed.ac.uk
PeaceRep.org
Twitter: @Peace_Rep_
Facebook: https://www.facebook.com/PeaceRepResearch
LinkedIn: https://www.linkedin.com/company/peacerep/
Instagram: https://www.instagram.com/peace_rep_/

Supported by the UK Foreign Commonwealth and Development Office (FCDO), the Covid Collective is based at the Institute of Development Studies (IDS). The Collective brings together the expertise of UK and Southern based research partner organisations and offers a rapid social science research response to inform decision-making on some of the most pressing Covid-19 related development challenges.

This research is an output from the Peace and Conflict Resolution Evidence Platform (PeaceRep), and funded by UK Aid from the UK Foreign, Commonwealth & Development Office (FCDO) for the benefit of developing countries. The information and views set out in this publication are those of the authors. Nothing herein constitutes the views of FCDO. Any use of this work should acknowledge the authors and the Peace and Conflict Resolution Evidence Platform.

Thanks are due to Christine Bell and Laura Wise for comments on earlier drafts of this report. The authors would also wish to extend their thanks to the Yemeni research institutions, Yemen Polling Center (YPC) and Yemen Policy Center. The research was designed in cooperation with the Yemen Policy Center and the data across the wider project was collected by the Yemen Polling Center, in the first part of the research released by Yemen Policy Center, YPC's work was part of the "Civic Politics" project funded by the German Federal Foreign Office. This work led on to the second part of research led by the Political Settlements Research Programme and without the field expertise and knowledge of both Yemeni research organisations, this report would not have been possible. Thanks also go to Allyson Doby and Rick Smith of Smith Design Agency for proofreading and production work.

Robert Wilson is a Research Fellow and Policy Coordinator with the Peace and Conflict Resolution Evidence Platform at the University of Edinburgh. He has led the FCDO-funded, lower-middle-income country Covid Collective Yemen research which examines the nexus between the pandemic and cycles of conflict in the country, and how local groups are part of the response to Covid-19.

Raiman Al-Hamdani is a researcher and consultant focusing on issues of security and development in the Middle East and North Africa, specializing in Yemen. Born in Sanaa, Al-Hamdani spent his formative years in Yemen. He has an MA in International Security and Conflict Management from the American University in Cairo and an MSc in Development Studies from SOAS, University of London.

Contents

Introduction 01

Conflict, Governance and Health in Yemen 03

Key Insights from Health Professionals and Civil Society Organisations in Taiz and Hadhramaut 11

Local Authority and Covid-19 responses in Yemen 16

Health Actors Intersecting Configurations and Public Trust of 'Authority' 25

Conclusion and Key Findings 42

Appendix 1: Interview Questionnaire 44

Introduction

This study builds on our collaboration with Yemen Policy Center and their earlier study of state community relations and the enforcement of Covid-19 measures by security officials in Taiz during early stages of the pandemic.

In this report, we examine the local responses to Covid-19 by health authorities, health professionals and Civil Society Organisations (CSOs), framing their efforts within the peace and conflict nexus with Covid-19. At the time of writing, the conflict continues although a new UN Envoy has provoked Yemeni and international discussions on how to reframe and reinvigorate the peace process. This report raises some of the complexity around local service provision and decision making and the actors who can be central in influencing it. We retrospectively consider the importance of local health and governance actors to local political dynamics in Yemen, by considering their role in the critical health and community responses to Covid-19. We suggest that their capacities in facing the Covid-19 crisis in Yemen are further grounds for inclusion in any future peace and transition dialogue focused on a fundamental reframing and redesign of peace processes. Whether at local, regional or national levels, any future pause or cessation of violence can create space for dialogue. The voices and views of local actors such as the health-focused civic actors involved in this study should be included in any dialogue given the extent of their knowledge and capacities, as made clear in the examples set out in this study.

Background to the Study

Our research target areas of Taiz and Hadhramaut governorates, are regions predominantly controlled by the Internationally Recognised Government of Yemen (IRG) and throughout the research period have sustained increasingly widespread social protest that continued into September 2021. This protest reflects a frustration with the failings of the local and national administrations, as economic conditions have continued to deteriorate affecting people's everyday lives. In Taiz, public service and infrastructure have been continuously fractured by intense levels of ongoing violence and the fabric of local authority is torn along sectarian lines, where sides rarely observe ceasefires. Among the many regions of Yemen, it is perhaps in a sense representative of the inter-group complexity and stalemated nature that characterises the wider conflict. In Hadhramaut, despite also seeing recent social unrest, there is a comparative level of stability in terms of public service provision and levels of violence, yet here too a loosely connected tribal polity represents a governorate with a diverse identity, creating a level of political fragility.

Key informants from Taiz who participated in Yemen Policy Center's early interviews - part 1 of this research - explained that a lack of accountability and coordination among local civic and public institutions indicates that no concrete Covid-19 response plan was established by public institutions and authorities[1]. In part 2 of the study, this theme continued, although the data for this study indicates that in the context of a response to Covid-19, focusing on state breakdown and the need for reform of the social contract in Yemen[2] can risk detracting from the strengths of civic-led responses and localised responses that are also part of the social contract, and that have continued to function throughout the first and second waves of the pandemic alongside a multitude of conflict pressures.

Negotiation and cooperation among local level actors that provide health responses and critical services will remain essential at least until some sort of political settlement is reached, and even beyond. The modalities through which local systems have been adopted among local actors are imperfect, yet in the face of extreme pressure they continued to function, demonstrating that civic-led responses can create a level of stability and social buy in, beyond national guidance or coordination. While it is partly true that people did not conform to Covid-19 information or measures because they simply could not, or because they had lost all confidence and trust in the state, it is also important to understand the effectiveness of community responses and collective local efforts. While the actors that make up these local networks have not been included in the national peace process and political deliberations, they have continued to manage complex conflict conditions in order to preserve a level of societal functionality.

The report begins by setting out the recent health and social settings in both locations, with relation to the conflict-covid nexus. It then sets out the methodology and key findings from the research and follows this with analysis of the pre-existing civic relationship with health authorities and the roles of health professionals, CSOs and health teams in the field. It looks at the ways these actors bridge gaps to provide a response to the newest health crisis in Covid-19. We conclude by highlighting further avenues for research and focus areas for policy approaches that should now attempt to conceive the fullest tapestry of local and in the case of this study, civic actors. Approaches need to recognise the extensive capacities of these civic actors, in navigating the complexity involved in implementing health directives at the local level and in community settings. Whether these directives are centred around basic daily function, humanitarian causes or peace process, the inclusion of these civic health actors in future peace discourse should be encouraged in a regionally nuanced way.

Conflict, Governance and Health in Yemen

- A defunct health system: According to the Yemen Data Project, coalition airstrikes have provoked extensive damage to medical, water and sanitation facilities, which 'has contributed directly to the worst cholera outbreak in modern history there have been over 1.15 million suspected cases of cholera.'[3] Yemen is ranked 193 out of 195 countries for its capacity to manage an epidemic. As of September 2021, only 50% of the country's health facilities are fully functional.[4]

- Covid-19 cases in the country: Throughout southern territories and IRG-controlled governorates, the official tally of confirmed cases since the pandemic began stands at 11,803, with 2,143 official deaths as of March 30th, 2020. These figures do not reflect the true magnitude of the Covid-19 crisis in Yemen due to nationwide underreporting. Throughout the country, due to lack of social distancing, limited vaccine availability, and weak health infrastructure, Covid-19 remains widely transmissible in Yemen. Covid-19's third wave reached Yemen in the summer of 2021.[5] Vaccination numbers remain very low. As of March 2022, 807,502 people are fully vaccinated in Yemen[6], with governance dynamics in certain areas, such as in Ansar Allah-controlled* (the Houthis) territories, still limiting rollout in cooperation with the World Health Organisation (WHO)[7]. The overwhelming majority of the administered vaccines were to men, particularly those migrating to Saudi Arabia for work. In the face of multiple challenges, on the ground Covid-19 is not perceived to be a main threat.

I. The arrival of Covid-19

The arrival of Covid-19 further burdened the country's overwhelmed, fragmented, and under-resourced health sector, compounding socio-economic deterioration in the country. With an estimated population of 30.5 million, approximately 20.7 million people require some form of humanitarian or protection assistance, including 16.2 million who face highly acute food insecurity.[8] Two-thirds of all districts in the country are already pre-famine, and one-third of districts face multiple severe health needs. Water shortages and other infectious diseases such as cholera and dengue fever, as well as other transmissible diseases such as diphtheria, are all ongoing pressures whereby there is no real system of response developed by health authorities.[9] Our data reveals findings around how response systems to these other diseases had developed in the conflict prior to the arrival of Covid-19 in Yemen and how this may have impacted Covid-19 responses, which we come to in later sections of this report.

** A Zaydi Shia revivalist movement which controls the de facto government based in Sana'a.*

In September 2021, the Hadhramaut governor grappled with regaining public confidence and restoring order, where conversely in Taiz, brigades suppressed protests using live ammunition and in both Al-Mukalla city and in the neighbouring governorate of Aden, protesters were killed.[10] This situation is set against a backdrop that sees the IRG and Southern Transitional Council (STC) redirecting their attention and rhetoric towards recent Houthi advances in Shabwa and militia infighting in Aden. These are just a few of the many other focuses for authorities and officials alongside consideration for the response to Covid-19. Examining the nexus between peace and conflict and Covid-19 necessarily involves recognising the realities of fragmented conflict settings and that health responses dealing either with Covid-19 or any other fundamental public service by authorities cannot be assumed, in the presence of shifting, proliferating and competing conflict agendas.

Prior to the arrival of Covid-19, tensions existed over conflict parties managing aid deliveries or the few functioning health facilities in the country. As examples, the IRG and the STC imposed bureaucratic requirements on aid agencies[11] and upon the arrival of Covid-19, contested the right to manage health facilities and continued to make decisions over the management of Covid-19 facilities[12], impacting their efficacy, while Houthi groups denied the existence and threat of Covid-19[13] in their territories altogether.

II. Taiz

Taiz governorate, where an estimated 3 million people still live, became the centre of the conflict between the Saudi-led coalition and the Houthis[14] in 2015[15]. Taiz city, the capital, was put under siege, leaving residents unable to access basic services with many seeking refuge in other governorates or in rural Taiz[16]. In the years preceding Covid-19, the Internal Displacement Monitoring Centre estimated more than 250,000 people had fled Taiz between 2015 and 2017[17] where Internally Displaced Persons (IDPs) in Taiz live in camps, schools, and government buildings, with others integrating into host communities. The displacement camps are located outside of Taiz City in the districts of al-Maafir, al-Shamayatayn (especially al-Turbah) and the majority of those living there were displaced from Taiz and Hodeidah governorates. A 2021 report by the Sana'a Center described food and supplies coming into Taiz having to make the journey from Aden via the only road dirt track road held mainly by the IRG. Where people were trying to cross town (Taiz city) it would take them 5-6 hours as opposed to the 15 minutes it once would have taken, forced to navigate frontlines and 'a myriad of checkpoints' held by competing armed actors.[18]

At the time of writing, alongside the introduction of Covid-19 measures and responses, the currency inflated* by almost 67 percent,[19] losing almost half of its value by January 2022[20] and making it difficult for people to secure basic necessities. This undoubtedly intersects the "economic warfare"[21] waged by most of the main conflict parties, impacting the flow of already scarce resources at local level. Towards the end of 2021, the ongoing issue of unpaid salaries[22] raised its head again across several frontlines in October, leading to soldiers setting up unofficial checkpoints to collect taxes, causing blockages and violent incidents on many of the main roads. A number of our participants described increases in frequency and stringency of checkpoints set up to enforce Covid-19 measures, in both Yemen Policy Center's part 1 and in this study.*

While the governorate is split between the pro-IRG groups and the Houthis, almost all of Taiz city is controlled by the IRG, with the al-Islah party* represented within its ranks. There is frequent infighting between the loosely affiliated groups within the wider Taiz Military Axis, which comprises of a range of al-Islah affiliated groups, Tareq Saleh's forces positioned towards the west coast and the Giant's Brigades.[23]

Broadly in what is one of the most fragmented governorates, these groups compete for authority in the city and in the wider governorate, where Salafi militia fighters backed by the United Arab Emirates (UAE) and more sporadically, al-Qaeda also contest space. The local authority and the local councils continue to play a role in Taiz city, but have been increasingly withdrawn from political infighting among parties in the city. Infighting between the various political groups now tends to be concentrated outside the city and around the governorate. As of 2019, al-Islah had begun to dominate the political landscape in Taiz city. By March 2019, due to the security situation and diversity of armed actors, most local councilors had left the governorate along with the governor himself who operated outside of the governorate, leaving executive offices and the local authority more generally, unable to carry out or enforce their policies.[24]

** The Aden-based riyal has reached 1,258 to 1 USD; in comparison, the Sana'a-based riyal is now at 607 to the dollar. This is according to daily exchange rates as of March 27, 2022.*

** From YPC- led field interviews carried out with Political Settlement Research Programme between December 2020 and May 2021.*

** Yemen's offshoot of the Muslim Brotherhood, which controls a considerable number of seats in the Yemeni Parliament.*

Despite al-Islah dominating the political scene in Taiz, divisions persist between them and the city's population, as well as with other political groupings including representatives of the General People's Congress (GPC) and Nasserites (one of Yemen's historical pro-democratic political parties). As the party of ex-President Ali Abdullah Saleh, the GPC has remained the dominant political party in Yemen while 'violence has largely replaced politics' [25]. Even when fighting has eased in Taiz, in what is one of Yemen's most pressurised cities, factors driving civil unrest have remained unresolved with levels of social unrest remaining relatively high.[26] A lack of access to basic goods has been tied up with a fluctuating economic situation, as noted above. Public approval of the Taiz Military Axis remained low as new Covid-19 measures were introduced in the city and wider governorate. The complex political arrangement in Taiz city, the threat the Houthis pose from the north, east and west, and the presence of competing pro-IRG groups on the West Coast, all continue to directly impact governance dynamics in the city and its surrounding areas.

III. Hadhramaut

Hadhramaut governorate and its capital Al-Mukalla have remained relatively stable throughout the ongoing conflict and in recent years have seen a considerable growth in population, due to the inflow of IDPs from other southern cities, as the wider governorate is estimated as of February 2021 to be home to between 1.5 and 2 million people, with approximately 25,000 IDPs.[27] Currently, around the capital, UAE-backed forces control the area and are aligned with the STC* however, tensions remain as the IRG, STC, and local tribes struggle for control. Further north, central Hadhramaut's Wadi (dry watercourse) area, including Seiyun city, is agriculturally wealthy and currently aligned with the IRG, although a few separatist forces remain there. The region tends to be associated with al-Islah as the politically influential group holding a substantial level of parliamentary leverage. Their level of power in Hadhramaut is largely founded upon the popular support they draw from agricultural communities that tend to be the primary recipient of the group's numerous charitable institutions and initiatives.

** A political secessionist group which supports pro- independence for the south of Yemen and is supported by a network of armed groups (some of which have been backed by the UAE for much of the conflict) who collectively control a majority of the territories in the southern governorates. Latterly the group have increased their claims of providing southern populations with good governance. Currently they hold the temporary capital Aden and nearly a fifth of cabinet seats in the IRG.*

In 2013, amid the security vacuum created by the central government's collapse, Hadhramaut's tribal groupings began forming the Hadhramaut Tribal Confederation which became the Hadhramaut Inclusive Conference (HIC). The body now leads the contest for control in the governorate and its strength has arguably generated a greater level of opposition among separatist groups, notably the STC. Collecting data from interviews with participants in both coastal and central Wadi locations provides the research with a range of participants living under these differing forms of southern governance. The HIC alliance which predominantly supports the IRG and is governed from Seiyun is often accused by opponents of collaborating with groups such al-Islah and therefore with al-Qaeda in the Arabian Peninsula (AQAP), the branch of al-Qaeda in Yemen who announced their war on the Houthis early in the conflict. Since 2019, the HIC has grown in strength, actively promoting concerns and issues specific to Hadhramaut under the leadership of Amr bin Habreesh, chief sheikh of the powerful Humam tribe, and deputy governor since 2019.[28]

Within the relatively stable governorate, in attempts to balance local government, the governor has often been careful to select representatives from both the STC and other political groupings. This political balance is critical to keeping violent extremist groups such as AQAP from reestablishing a "formal" local presence;[29] a presence that previously involved governance attempts by the group by addressing Hadhrami concerns, respecting local traditions and integrating themselves into southern communities.[30]

The power struggle between the governor, the STC, various Hadhrami groups and separatist groups, in which all groups claim to support 'progress', is continuously in evidence to local communities under the guise of development projects, funded by regional actors.[31] As examples, in July 2020 Saudi Arabia continued their developmental claims through the Saudi Development and Reconstruction Programme for Yemen (SDRPY) which claimed to address public service needs through improvements to health, education, energy and water infrastructures by implementing findings from a series of specialist needs assessments which were in consultation with local authorities in Hadhramaut.[32] In a similar way, the UAE which as already noted back armed groups in the region aligned with the STC, announced the signing of an MoU in December 2017 between the Emirates Red Crescent (ERC) and Yemen's General Authority for Rural Water Supply Projects. The agreement was to ensure UAE support to rural water supply projects in Wadi Hadhramaut[33] and in May 2021 the ERC also claimed to begin construction, restoration and maintenance of eight medical facilities in Hadhramaut.[34] Influential figures and political groupings such as the governorate's local authorities seek to maintain a level of neutrality with the various groups, as is seen for instance with the presence of the STC backed Hadrami Elite forces in Al-Mukalla where the governor resides. These authorities also exercise a considerable level of agency; partly appearing to advocate for local Hadhrami concerns by engaging in peaceful political participation while also pursuing local and regional goals. Hadhramaut's continued stability largely depends on whether the STC and the IRG will move to compete for control and governance legitimacy as the region becomes the centre stage for counterbalancing efforts by the UAE and STC against al-Islah, the IRG, and increasing Saudi Arabian presence.

Hadhramaut's relative and fragile stability, like that of many southern governorates, also depends on the uncertainty over the Riyadh Agreement's implementation, as the STC enjoys a high level of popular support in the coastal areas of the region. Among the various southern groupings involved in Hadhramaut's security dynamics, strength of force and foreign backing in part act as deterrents to violence spiraling as has often been the case in the more binary frontline engagements involving the Houthis and IRG forces further north and east. Security dynamics are delicately balanced however, and it seems that this equilibrium is uncertain as long as the sharp decline in public services continues.

Where the Riyadh agreement of November 2019 aimed to solve some of the governance problems caused by the proliferation of armed groups in the south, the power-sharing framing of the agreement which focused on distribution of power between northern and southern governorates rather than recognising the STC as a leading southern actor, may have served to undermine the relative power of the STC.[35] Importantly, given the fragmented context we have set out here, it should be remembered that the undermining of the STC has been a strategy of other competing southern forces, and is part of the governance backdrop to the arrival of Covid-19.

At time of writing, protests continued across Hadhramaut over local grievances surrounding the general deterioration of public service provision throughout the south. In relation to narratives around the need for a cohesive response to Covid-19 and a return to the peace process, the ongoing politicisation of the southern question and the resulting proliferation of actors and further fragmentation in the south is the responsibility of all major parties to the conflict. While the IRG and STC continue to battle for the Wadi and Coastal regions respectively, towards the end of 2021 the risk of even minimal disputes turning violent was heightened. Particularly when land is involved, confrontations often escalate, with each side calling in local armed men.

This short research report deals mainly with Covid-19 responses, but does so against the context of prospects for any future approach to peace process in Yemen. The extent to which health actors and community civil society actors have supported the bridging of the civic-authority gap and created a greater pull between actors to respond to the pandemic, shows the need for greater civic inclusion in any future reframing of the peace process. We attempt to use indicators from Covid-19 health and CSO responses as a lens to focus on the capacities and knowledge of these community level actors.

IV. Research Questions

The research examined the role of health professionals and CSOs in bridging public service gaps and implementing responses in such a deeply fragmented setting using the following research questions:

- How are different health needs of different Yemeni communities impacted by Covid-19, if at all?
- Which actors are understood to be effective responders to Covid-19 in their area? Is this very different in urban and rural areas?
- How has Covid-19 impacted on the role of CSOs in supporting the community to deal with the effects of the conflict?
- How has Covid-19 changed the conflict dynamics between armed actors and local authorities and how has this impacted on the role of health professionals and CSOs?

Key Insights from Health Professionals and Civil Society Organisations in Taiz and Hadhramaut

I. Methodology

Our report draws from 20 Key Informant Interviews (KIIs) in Taiz governorate in the southwest and Hadhramaut in the east, with interviews conducted by Yemen Polling Center (YPC). YPC used their community level networks to engage with 15 medical practitioners and health professionals, 3 CSO heads and 2 public health servants. Where possible we included more women than in earlier interviews, interviewing 12 women and 8 men, given that the Yemen Policy Center's first report involving security officials in Taiz predominantly involved men, although some women contacted for our study were unable to participate. Data was shared and stored using the secure sharing platform KoBoToolbox, as used by YPC and recognised within the accepted ethical and data protection procedures of the University of Edinburgh School of Law.

A key issue in the methodology was the question of selection when defining who is a 'key' respondent. Recognising the hierarchy of selecting senior or 'key' informants, we worked with YPC to select a range of people in senior health and community related positions who by nature of their roles and as people who have also lived in the conflict, were in a position to offer initial insights reflecting the needs of Yemeni society both prior to and after the arrival of Covid-19. This was with a view to evaluating the short-term, providing a strategy for understanding communities[36] at an empirical level and across two relatively contrasting geographies. We aimed to work with the people who had begun to develop ways of responding to and treating the new pandemic relative to where they live and who held a level of understanding of how Covid-19 has arrived in wider Yemeni society and discourse.

We faced some of the same universal Covid-19 realities limiting participation, as well as conflict specific limitations in finding people who could provide insights into community interactions with measures, as well as a view of how Covid-19 was changing interactions between groups involved in the peace process and the importance of this in relation to the conflict tapestry. Given the limited scope of the research involving 20 interviews, our findings should be viewed as indicative rather than comprehensive of Covid-19 responses.

Covid-19 has presented people with a new, restrictive, unknown and evolving set of realities to engage with alongside existing daily conflict pressures. In the case of Yemen, people and health actors experience a daily evaluation of weighing off the need for daily subsistence, conflict-related threats and complex local governance functions, alongside the threat of Covid-19 and related measures. Against this backdrop we attempted to make KII questionnaires as open as possible while also focusing on Covid-19 dynamics (see Appendix 1). The data produced included a broadly self-defined set of answers from participants as to their experience of the responses to Covid-19 where they live.

II. Research safety considerations

The YPC research team and Head of Fieldwork supervisors were able to navigate additional Covid-19 pressures impacting selection. YPC's supervisors are trusted by societal figureheads within the communities we were focusing on and were able to mitigate the range of Covid-19 and conflict barriers. Interviews were shortened from a standard length of 1 hour to 25-35 minutes, as interaction dynamics were changed by remote phone interviewing. We worked with YPC to adapt interviewing to align with Covid-19 safety measures for participants and researchers, however some participants actively requested an interview at home, suggesting they would be more comfortable with this. Being sensitive to people's experiences and constructs of what constitutes risk in such a violent conflict setting was important in this sense, recognising the risk of Covid-19 and ensuring social distancing measures but importantly, also being aware of the complexity of conflict-related risks innately involved in daily life in Yemen. Sensitivity around an increased use of remote methods was particularly important given that throughout the conflict telecommunications have been regularly impacted by both physical conflict acts such as airstrikes and by virtual acts including targeted surveillance and control of phone and internet use by conflict parties including the Houthis.[37] YPC ensured selection of participants within Taiz city, fringe districts around the city and areas to the south and east where the Houthis did not have control. YPC's headquarters in Taiz also have the highest levels of data security technology and network protections in place.

Through our selection of two target governorates, we also further recognise this as a limitation which adds to the indicatory nature of our data relative to the wider country. Houthi-held governorates were not deemed as safe research locations by YPC and violence was continuing to escalate in other governorates that have conventionally attracted governance-focused studies such as Marib. We covered two target governorates in ways that might provide a balanced comparative view of Covid-19 responses, provided by people who are ultimately forced to navigate measures whilst performing their roles; reflecting both the fragility of highly fragmented armed group dynamics in Taiz and the somewhat more stable but politically divided systems of local governance in Hadhramaut.

III. Key insights across Taiz and Hadhramaut

We set out below our key findings.

- *Over half* of the participants described differing forms of *house-to-house Covid-19 measures;* interpretations and language describing this ranged between health-related CSOs providing awareness raising campaigns and education about Covid-19 to health response teams monitoring confirmed cases in their homes, sterilising houses, providing PPE, medicines and oxygen to isolating families or individuals, encouraging them to stay at home.

- *19 out of 20* participants described *a majority of society being unlikely to accept a vaccine* stemming from a broader lack of awareness and misinformation. Reluctance came from fear of the vaccine causing death or other disease; a refusal to recognise the existence of Covid-19; a lack of awareness of and confidence in other vaccine programmes, such as for Chikungunya virus, Diphtheria and Tuberculosis. Of these participants, a quarter of people suggested that in relation to previous programmes, acceptance of a vaccine would likely improve if people saw health professionals receiving it.

- Relating to this sentiment, *nearly a full majority* of participants described *higher levels of civic trust and confidence in health professionals;* set against a broader lack of trust and confidence in authorities described by some participants, doctors, nurses and health teams* or medical response teams held the highest level of trust because they were visible and accountable in treating Covid-19, sometimes in more remote areas. Medical professionals were described as intrinsically valued within the social fabric, being close to people and mostly staying at their posts throughout the pandemic. This has come at a cost—according to the Yemeni Doctors Living Abroad Association, an estimated 150 doctors have died in Yemen during Covid-19.[38]

- Within this level of trust in health professionals, *response teams with Covid-19 specific training and knowledge deployed on the ground* to detect and monitor Covid-19 cases[39] also held a level of civic trust. These answers provided indications that through these relationships, people might be willing to engage with and recognise Covid-19, even though *over half* of participants also described a majority of society *refusing to believe in or take seriously the existence of Covid-19*. By May 2020, the WHO had announced the roles of rapid response teams in responding to Covid-19 in other country settings including Kenya and Somalia.[40]

- Within this answer, *just under half of participants* described myths and misinformation about Covid-19 vaccines being known as *'mercy injections'*. Answers described beliefs that vaccines being administered were causing death or other illness creating a reluctance to report cases and seek treatments. Answers also suggested that in turn, this further fuelled the likelihood that most people would not accept a vaccine.*

** Participants' language describing 'health teams' ranged between 'response teams' and 'medical teams' and were viewed by people as immediately available and dispersed across areas. Teams are composed of actual health professionals such as doctors and health actors affiliated with the local official body which is the health office, as well as voluntary health staff who have been trained in monitoring and detecting Covid-19 cases. The experience of participants across the data tends to be that these teams are trusted alongside professional health workers such as doctors and nurses because of their presence and specific health-knowledge around Covid-19.*

** Field interview answers in Hadhramaut revealed late reporting of cases through lack of awareness among families, leading to armed assaults on health staff if the patient died, with families accusing staff of administering the "mercy injection" if their relative died from Covid-19. We explore this in more detail in later sections.*

- Over half of the participants described a lack of a coherent plan or presence by the state in the national health response, suggesting that after early official lock down orders, there was little sense of overarching support and resources coming from the government, with an increasingly limited involvement throughout the remainder of the first wave and into the second. Answers set out by health professionals described the following issues in relation to this finding:
    - Government affiliated institutions like the health office, local authorities and security authorities were left to garner localised responses in both Taiz and Hadhramaut with little resources.
    - A lack of clarity over what the health plan being administered by the government in hospitals was in relation to the orders of the health office.
    - Resources and information regarding Covid-19 that were provided by the government were insufficient and unreliable and failed to offer people alternative forms of support in line with official Covid-19 measures, such as stay at home orders.
- A few participants critical of the state's Covid-19 response tended to also refer to the war, an overall absence of the state and long-term lack of fundamental health system infrastructure. Some answers also suggested that throughout the pandemic, resources were depleted by government sectors and that Covid-19 announcements were being used to collect fiscal international support.[41] There was less clarity among participants over whether government resources were materialising on the ground or were even usable upon arrival. Many of these participants described the WHO's role in supplementing the state response and providing treatments, equipment, medicines and oxygen as critically important.

Local Authority and Covid-19 responses in Yemen

I. Local authority complexity

A majority of participants in our study suggested the official, government planned response was lacking. There are governance divides and complexities to understand in order to comprehend how a level of response did materialise and why there was such contrast in the ways that participants described responses from authorities. It seems crucial to understand the relationships between Health Offices, local authorities and mobile 'health teams' in Taiz and Hadhramaut and the ways in which these systems of health governance have been gradually fragmented over the duration of the conflict and disrupted by other governance priorities, notably security agendas.

Questions of institutions and authority in Yemen are likely always in flux, particularly in the context of security institutions, where key issues and agendas and governorate dynamics shape shifts as to which security actors have dominance in which area. This reality bears relevance to our findings around how health provisions were delivered on the ground: the already blurred lines between state and non-state actors has become even more unclear during the pandemic in Yemen. As the country is increasingly fragmented, a complex institutional landscape has developed[42] and this landscape leaves a range of interpretations around what is legitimate or effective when viewing official actions or state institution behaviours. This is further complicated by the fact that non-state actors can be found managing state institutions in some areas.[43]

Adding to this complexity is a proliferation of non-state groups, and uncertainty as to when groups act in support of public focused governance and when they act to promote their agendas due to increasing inter-group competition. This was the case prior to the arrival of Covid-19 but has nonetheless coloured pandemic responses and complicated any attempt to assess the effectiveness of such. As groups seek to manage the additional threat Covid-19 poses to them, this governance complexity has been reflected in Covid-19 responses across areas, with emergency committees set up in IRG areas. Similarly, 'The Supreme/High Ministerial Committee for Combating Epidemics' was set up in Sana'a by the Houthis, who were not as transparent in disclosing Covid-19 detected case numbers to the public in their territories.

Even in government areas, 'governorates and local authorities with conflicting political allegiances and agendas with respect to The [Internationally] Recognized Government' [44] are all part of decision-making and a proliferation of 'local governance experiments', some of which have a rebel type appearance.[45] This reality means that any assessment of the 'official' response by region is difficult to make, while there are non-state actors in some areas that might appear more 'official' than 'official state' actors. Our answers from people regarding the strength or clarity of official orders, who were actually the ones delivering critical public focused health services at health facilities indicate the extent of health governance fragmentation. Our findings are a further reminder, that in the case of Yemen any part of public service conventionally provided or ordered by the state or even local authority cannot be assumed.

The reality that local authorities cannot always apply government measures in a practical sense was further highlighted by the arrival of Covid-19. In March 2020, the Yemeni minister for endowments and guidance suspended governorate level office directors in Taiz, Marib and Wadi Hadhramaut -which is separate to Coastal Hadhramaut in administrative terms - due to their failure to comply with one of the ministry's ban on Friday prayers and mosque gatherings,[46] even though this measure was not well received by the public and triggered civic questioning of the initial Covid-19 response by the government. As another example, following Yemen's first officially recorded case of Covid-19 in Hadhramaut's coastal town of Ash-Shihr, the governor and commander of the second military zone, General Faraj Al Bahsani independently announced a state of emergency and a night curfew, ordering public gatherings to be prevented by the police. He then implemented a day-time curfew, while governors in Shabwa and Al-Mahra governorates also ordered the closure of their borders with Hadhramaut.[47]

Across Taiz and Hadhramaut, most participants conveyed a sense of discord in the coordination between different security and health institutions in the first wave of infections. Ordinary people and health actors needed to navigate multi-level governance to address Covid-19 relief, just as they always do, but with the addition of a layer of emergency committees and the need for new lines of communication between them. In Taiz, one health official described the system of communication between authority groupings:

> *"There has been continuous coordination between the Health Office and the Response Team through mobile phone and social media. In addition to daily communication with the Health Office and the Epidemiological Surveillance Center in Taiz city, we submit daily reports to them through social media. There has also been communication and coordination with the local Authority in the district through the Emergency Committee, which was chaired by the Director of the District. It consists of the Secretary General of the Local Council, the Director of the Health Office, the Director of Security, the Epidemiological Response Team, and the village Aqils. We had meetings and regular communication with them."* (Epidemiological official, Taiz)

The same participant however also described the supports of the local authority and cooperation with the district's health office in their area as being "*limited and insufficient*", with more than half of the participants in Taiz echoing the sentiment that in relation to coordination and communication among varying institutions, the efforts of local authorities were inconsistent. While participants were generally critical of local authority efforts in Taiz, in some instances participants in Hadhramaut described local councils and governors convening societal and conflict groupings to form donation committees. This convening had initially been loosely supported by the government Ministry of Population and Public Health (MoPHP) but importantly, the participant described the donation committees being formed by local authority decree:

> *"[it consisted of] Social figures and notables from the area. It collects support from institutions, such as Hadramout Tribes, the Southern Transitional Council, Al-Islah Association, and Oun Association, which all participated in providing donations. All these donations are firstly collected at the Health Office, then distributed to the health facilities."* (General Physician, Hadhramaut).

Importantly, the Doctor also described the role of CSOs in supplementing these efforts, whereby local CSOs provided, *"personal protection equipment to health workers and hospitals"*.

II. CSOs within Covid-19 health governance

Indeed, cross cutting the need for local health providers and CSOs to navigate the institutional complexity so far discussed, participants in Hadhramaut who described local authorities convening main conflict groupings also tended to describe these efforts and CSO measures holistically. Community-led awareness raising efforts by CSOs were particularly important in complementing convening efforts by local authorities given the overall lack of resources and pressures on health facilities. This sort of pattern of activity tended to be described less by Taiz participants, with 4 out of 5 suggesting that CSOs were able to do very little in response to Covid-19. Unlike in Hadhramaut, this lower level of positivity among participants in Taiz about the role of CSOs extended to local health governance efforts. One person in Taiz said, *"They had no role … All civil society organizations start their awareness raising campaigns after it is too late."* (President of Development Charity, Taiz), and another saying, *"there were no [active] organizations. All organizations closed during the prevalence of the pandemic."* (Epidemiological surveillance official, Taiz).

Conversely, a local health authority member from Hadhramaut said of CSOs,

> *"There are civil society organizations with whom we have partnerships, and they facilitate matters, especially that they provide primary health care services in remote areas, the outskirts of cities, and emergency departments in hospitals. Emergency departments are important, so some organizations, such as Al-Awn Organization, play a major role in providing assistance to them… organizations mainly focused on raising awareness in general, and on reporting cases before they reach an advanced stage and it becomes difficult to treat them."*
> (Health and Population office official, Hadhramaut).

Within this relationship between local health authorities and CSOs, in a similar way that local authorities may not always administer the measures of the state, it does seem that there was a level of autonomy for donors and CSOs in Hadhramaut to bypass, or directly change from, the orders of the local health office. This would be the case if there was a sense that measures were not going to be effective for communities. One participant said in relation to donors, *"the plan is up to the donors"* and where CSO decision-makers were concerned,

> *"I could make a request to the Health Office for the provision of funds to run certain activities, and in turn they would propose it to the donors, and they may or may not approve it. Sometimes, I might use the funds to run different activities that the donor may have not approved of, but I say they served the community either way."*
> (Executive Director of Development CSO, Hadhramaut).

Equally intersecting these local health governance dynamics, participants also stressed the importance of international organisations in contributing to the collective effort where there were clear issues around a lack of protective equipment and critical Covid-19 related supplies materialising on the ground. Even in the more stable Hadhramaut region,

> *"If it was not for the World Health Organization, neither the government, the Health Office, nor the businessmen would have provided the necessary health equipment and materials. To be frank, refrigerators and other equipment would not have been provided."*
> (Medical Lab Technician, Hadhramaut).

Throughout the conflict and historically, local authorities, particularly in Taiz and in southern governorates like Hadhramaut, have been a central foundation for people, delivering service. Where possible and where conflict-induced inter-group competition allows, these authorities respond to increasingly 'inept' central authority institutions, playing a part in holding communities together by managing local financial pressures or approving local development initiatives. They act as conduits for local efforts in the face of deteriorating humanitarian, economic and security conditions.[48] Even with the further added pressure of Covid-19, our data to some extent illustrates this presence from local authorities, yet equally answers also focused heavily on a tapestry of social responses in the absence of sufficient local authority Covid-19 responses. Local health actors were critical in supplementing both physical delivery of treatments and encouraging public engagement with health messages from local authorities.

Where, for example, local authorities release a public health message around Covid-19 transmission, announce the closure of public space or gather medical resources and funds from other actors, the efficacy of these efforts would likely be in question without these social responses from health actors. Volunteer health teams sanitising homes with cases of Covid-19 and encouraging people to remain at home, providing them with supplies enabling people to do so, or CSOs dispersing medical supplies to rural hospitals and leading educational field awareness raising campaigns to encourage people to identify and report their case of Covid-19 at an early stage, all underpin a broader sense that local authorities are delivering.

As local authorities have become subsumed in fragmentation, there is perhaps a level of dependency on other local actors in order to find function. Increasingly it seems this dynamic is shaped by the need for local authorities to focus on navigating the increasingly complex 'institutional landscape',[49] as the slide towards increased 'subtle' forms of competition between the government and local authorities[50] continues.

With the unknown nature of the Covid-19 health challenge and the increasingly complex interactions between configurations of authority, our data may help to further elucidate the likely difficulties in generating cohesive responses across Yemen more generally. It also points to the need for better recognition of and discussion around the abilities of local actors and communities in navigating these fragmented systems of authority to ensure forms of response.

III. The officially planned response

A lack of official planning and coordination between differing configurations of authority was often criticised. People's sense across answers that there was not enough clarity as to where a health plan was emanating from, led to an impression among participants that there was a *"lack of a strategic plan to address people's conditions."* (General Physician, Hadhramaut). As a fundamental barrier to delivery, health teams that described this lack of official clarity also described armed actor presence on the ground impacting their mobility in accessing people's houses in order to treat peoples' cases of Covid-19 as they had been ordered to by the health office. We discuss this in more detail later in the report.

The governance complexities so far discussed seemed to connect to varying interpretations among participants around the efficacy and consistency of official orders. In Taiz, early planning meetings between local authorities and response teams led to orders of closures, where *"Armed forces were deployed to enforce the closure of markets"* yet in this regard, *"In general, the prevention measures were not effective"* (Epidemiological Surveillance official, Taiz). In Hadhramaut, participants also described variations of lockdown announcements via social media from officials, suggesting that *"whenever a partial lockdown from 8:00 am to 8:00 pm is announced, there usually are not any preparations for it. In turn, it receives a negative response from the people."* (Healthcare Practitioner Covid-19 specialist, Hadhramaut).

Officials themselves tended to describe a level of communication between armed actors, local authorities and health offices. Yet apart from the subject of armed actors gradually allowing health teams more access to areas as the pandemic moved on, health teams in the field and in hospitals did not describe the same level of increased efficacy around many other official measures. There were suggestions that daily official health related *"reports and instructions"* between various authorities and *"communications with the official bodies during the first wave was all through WhatsApp"* (Epidemiological official, Taiz). Some health professionals interpreted early first wave lockdown and closure measures to be *"official and implemented by the local Authority"* (Nurse, Hadhramaut), yet ultimately counterintuitive to the wider effort. A number of participants also described critical health teams being restricted from moving around to provide treatments and tended to be clear about the level of stringency regarding official lockdown measures. Answers described no movement of any actors or people being allowed until later in the second wave in most cases. One participant in Hadhramaut echoed a sense across answers that early measures sometimes tended to be counter-intuitive, saying that, *"even the Joint Operations Room [authorities] cannot enter and leave the country during complete lockdowns"* (Health and Population official, Hadhramaut).

Clearly it was challenging to diffuse an official plan or strategy through the many actors that are part of 'official authority' both in a logistically effective way and in a way that ensures a level of receptiveness among the public. Part of addressing this official response however should also engage with the answers that described the ways that civic interactions with armed groups enforcing measures played out in the spaces left by the lack of an officially planned response. Due to the level of discord between local authorities and armed actors, the latter of which can often work without any 'official' mandate, some health professionals described armed actor cooperation with health staff as *"relative",* where *"some security workers treat us well and others do not."* (Nurse, Hadhramaut).

As was seen in societies with more resources throughout the world, a lack of preparedness in facing the pandemic invariably led to reactive policies. In the case of Yemen this lack of preparedness was in part caused by and combined with a ubiquity of armed actors and pre-existing conflict architecture. Most participants seemed clear that in a reactive way this architecture was resorted to by authorities, the official signalling was that the role of security actors and police would be to focus on controlling public spaces such as markets and mosques, spaces that are also indelibly tied to peoples' vital needs given the conflict setting.

Most answers however when mentioning these spaces described situations in which increasingly scarce basic supplies and medicines were going missing, with some describing *"no oversights"* in markets from authorities and that where *"there is no oversight over these materials in the market…The Health Office should at least have a role in enforcing market regulations on pharmacies."* (President of a Health CSO, Taiz). In the case of this gap in service and oversight, we see an intersection with other answers that described the stay at home quarantine orders being issued by the health office to confirmed Covid-19 cases. Stay at home quarantine measures seemed founded on an expectation that people could leave their homes while isolating to buy medicines, as *"In some quarantine centers, patients have to buy medicines from outside of the center"* (Health and Population Office official, Hadhramaut). In instances where people were able to home quarantine, *"They buy their own medicine and stay at their houses, and we also trace their contacts"* (Epidemiological Surveillance Team official, Taiz). It appeared that eventually this gap was also filled by other community health actors, by distributing medicines to homes.

Yemen Policy's part 1 of the project indicated that the presence of security institutions or armed actors in public spaces in Taiz, did not always ensure the public health interests of communities or indeed ensure people could secure basic necessities. Findings suggested that while managing overcrowding in markets in the first wave of the pandemic, police or security officers were not using the opportunity to ensure the availability of goods, and rather were taking bribes from merchants. In part this was caused by the issue of unpaid salaries discussed earlier.[51] Equally, some participants described the reasons for official orders or communications being ignored by security officials in the city as being based around civic sentiment, whereby in one instance the 5th Infantry Brigade refused to implement an order to close a mosque on religious grounds, siding instead with public dissent against the Covid-19 order.[52] Where official decision making was not always complimentary or aligned, this created challenging conditions for responsive measures suited to people's social conditions and left gaps for community health actors to fill, addressing both provision of supplies and people's engagement with official responses.

Health Actors Intersecting Configurations and Public Trust of 'Authority'

Underlying what many participants described as the 'institutional' or 'officially' planned response, the varying interpretations of and levels of trust in authority also appear to be intertwined with a civic memory of other health traumas lived by people throughout the conflict. As a result of past health crises, people seemed to have a lack of confidence and trust in official health institutions. This kind of civic sentiment around the mismanagement of other health challenges by authorities, in practice could be seen to transcend the perceived threat of Covid-19, impacting receptiveness around public health messages regarding a new virus.

When asked about the official responses and coordination between authorities and health workers, one participant in Taiz said, *"Coordination has taken place late after the outbreak of the pandemic, and there has been no emergency response."* (CSO Director, Taiz). In relation to health administration and people being able to access treatments, Taiz has been in a state of division for a number of years, sustaining some of the most acute effects of the conflict to date; governed by the IRG, with northern fringe areas around the city controlled by the Houthis.[53]

In Hadhramaut, doctors, nurses and other hospital staff described being unclear as to the health plan being administered in hospitals and at facilities by the health office and local authorities, with one participant suggesting that due to Covid-19, *"Coordination has increased, and the role of the Health Office has become more significant"* (Nurse, Hadhramaut). Equally in the same governorate another health professional said,

> *"With respect to coordination between the government and health workers; I think it only takes place between the government and the hospital administration, but there is no direct coordination between the doctors and the government."* (Doctor, Hadhramaut)

As so far discussed, there was some level of coordination between local authorities and health offices in attempting to communicate the implementation of measures focused on containing the spread of the virus; largely through lockdowns, closure of public spaces and awareness raising efforts. These measures tend to be described in a limited way when answers focused on encouragement of social distancing or enforcement of lock downs. Efforts seemed limited and most participants suggested that Covid-19 had not noticeably changed coordination among health authorities. Descriptions of more specific targeted local health authority efforts however, such as, *"assessing the medical staff needs" and "including training courses in COVID-19 case management"* (University professor, Hadhramaut) were part of a perception that local authority efforts were still relevant. Given other answers, this relevance could be viewed as the opening up of spaces by authorities in which other actors like CSOs and health teams could further extend responses. Even in answers that described no coordination, there were still indications of some level of collective response garnered between parts of local authority, health professionals and CSOs:

> *"There has not been any coordination with the Health Office, apart from some activities in cooperation with organizations to provide training for some initiatives about raising awareness on the preventive measures against COVID-19."* (CSO Director, Taiz)

Answers like these tended to be part of a consistent pattern that described CSOs and local health teams to be logistically bolstering the response. Most answers also described these actors as the most trusted and most likely to gain a level of public receptiveness when providing Covid-19 treatments or education.

Regarding the level of threat posed by other serious diseases in relation to levels of civic trust and confidence in health management and treatments by authorities, one participant said, *"there are still parents who did not vaccinate their children against other diseases such as polio… the government did not get involved enough."* (Quarantine Centre staff member, Hadhramaut). Apprehension and lack of trust over the ability of local authorities and health bodies to educate society on other diseases also led others to suggest that, *"in the past, vaccines for tuberculosis measles were rejected in the beginning as a result of people's ignorance and the lack of awareness."* (General Physician, Hadhramaut).

Awareness levels and knowledge around Covid-19 were of course, as in many countries, issues which shaped public compliance however there was a clear theme across answers that the history of other responses to epidemics in Yemen was also a factor shaping how people viewed Covid-19. One participant stated,

> *"The main health challenge is the wide and continuous spread of fevers, especially in the beginning of the winter and summer. For example, Dengue fever is widespread, and for so many years, no proper definite solutions or treatments have been implemented."* (CSO Director, Taiz)

Much of the literature on health responses and disease management in the conflict has tended to be centred within scientific and public health focused research that adopts narratives of collective humanitarian failure. In order to supplement humanitarian focused findings, there needs to be more political analysis to truly locate and understand the local or collective memory of responses to other health traumas so as to locate the position of civic engagement with the health system and health governance after seven years of violent conflict. The frequency of vaccination programmes and 'vaccination coverage'[54] for example, have rightly been part of the focus of existing literature. In our study, participants were however clear in describing the state of vaccination programmes in relation to public confidence in an official plan to counter Covid-19 as the next infectious disease:

> *"If the tuberculosis, cholera and malaria vaccines for children have not been accepted by some people even though the majority believed in their existence, how do you expect people to accept the COVID-19 vaccine, when they do not believe it even exists?"* (Executive director of Development CSO, Hadhramaut).

It seems the acute trust dilemmas described by participants were layered into the overall misinformation circulating about Covid-19. Answers stated that people would not report to quarantine centres or medical centres to receive treatment or report cases, due to fear of 'mercy injections'*. This was expressed in both governorates in differing ways. In both regions people described fear of vaccination *"due to the myths that are spreading around, such as it causes death or sterility"* (Leader of Epidemiological Response team, Taiz) with other participants in Hadhramaut blaming *"The spread of misinformation about the vaccines"* (Radiologist, Hadhramaut) for the level of public fear of treatment. Another said,

** Fears around 'mercy injection' tended to merge with answers describing a fear of facilities, ostensibly this involved a belief that a vaccination that had not been trialled would be administered, causing death or other side effects or that patients would not safely return from official quarantine facilities.*

> *" I do not think the people are accepting the vaccines, unless they do the same as they did with the other vaccines provided at the centers. People's trust might grow if they carry out experiments in the same area just like they did in other countries. However, now, I think it is difficult due to the myths going around about the COVID-19 vaccines; they cause death."* (Supervisor of Reproductive Health, Hadhramaut).

Directly impacting the hope of containing the spread of the virus, other answers suggested that this fear impacted people reporting to quarantine centres or indeed reporting their own cases from their homes. In Taiz, one participant said, *"There are also myths that claim "mercy injection" are used in quarantine centers; therefore, people choose to stay in their houses and receive treatment there"* (President of Development CSO, Taiz) with another participant in Taiz suggesting that this fear and overall social stigma attached to reporting Covid-19 meant that, *"most COVID-19 cases were not reported until the symptoms worsened and it was too late to do anything."* (Director of Development CSO, Taiz). In Hadhramaut another participant described a situation, in which a family had brought their relative in for treatment with an advanced case of Covid-19, which the person eventually succumbed to, *"Later, the family of the deceased patient assaulted the doctor and accused him of injecting her with the 'mercy injection.'"* (Quarantine Centre Director, Hadhramaut). This participant went on to describe the development of a consent form measure, for patients to sign upon presenting with Covid-19 in order to address the issue of doctors being assaulted and *"sometimes buttstroked by rifles"*.

We found these instances at centres were not uncommon and emphasise findings in Yemen Policy Center's first report elucidating the ungoverned nature of some health facilities involved in Covid-19 management. Their findings highlighted that at some privately funded centres, those with suspected cases were even helped to escape quarantine centres[55] due to fears and poor conditions. One of our participants in Taiz described the same centre highlighted by Yemen Policy Center, *"Shifak Center is a private center that is sponsored by philanthropists. It is not a governmental center",* and later in the interview added *"Private hospitals do not treat COVID-19 suspected cases."* (Director of Development CSO, Taiz). Given the clear sense among participants in Yemen Policy's study that the role of checkpoints was to control the flow of positive Covid-19 cases, with security actors escorting people from checkpoints to quarantine centres and health facilities,[56] our answers combine with Yemen Policy Center's findings to point to a gap in the function of centres. Health actors were left to navigate protection dynamics, the repercussions of social stigma and patients' willingness to stay and be treated, alongside the fundamental lack of resources and equipment enabling efficient and sanitary treatments at centres.

Furthermore most participants in our study who worked at centres interpreted questions about monitoring and protections of health centres as relating to Covid-19 protective equipment rather than physical security protections. We found further similarities to the themes found by Yemen Policy Center, with some participants describing the undermining conditions present at centres that health staff might have to face, *"Some people believe that these centers are just trying to show that COVID-19 is prevalent for ulterior motives"* (Quarantine Centre Director, Hadhramaut). Ulterior motives could be interpreted in line with the marketplace bribes driven by conflict dynamics already noted or alternatively, in line with the inconsistencies between the increased set up of Covid-19 related checkpoints and the enforcement of quarantine case referrals from checkpoint sites.

In relation to the responsibility to protect and monitor centres, participants in Taiz tended to say that such monitoring simply had not been present, with one person saying, *"They have not been properly protected … The role of security forces was limited to closing schools and preventing gatherings in mosques and wedding halls."* (Director of Development CSO, Taiz). As already noted, the ongoing violence in Taiz and complexity of security institutions creates questions over not only the incentives of security actors but also their capacities to provide additional services at centres when it seems basic Covid-19 enforcements in markets and at mosques were challenging. Conversely, in Hadhramaut participants described the level of protection as better but still lacking, possibly due to ongoing competition around resource management and governance.

Notably in urban settings, *"many centers did not implement any protection measures due to lack of monitoring. I noticed that there was a great attention to big centers that are in the city, while medical centers in the villages did not get any attention"* (Supervisor of Reproductive Health, Hadhramaut). In some instances, *"Security forces' protection was available, but unfortunately, their responsiveness in the quarantine center was approximately 60% as the highest level."* (Healthcare Practitioner Covid-19 specialist, Hadhramaut). Clearly the range of interpretations across our answers suggests the complexity of dynamics that health actors had to interact with in order to perform roles without disruption. All health staff found themselves trying to navigate challenging conditions working in centres that were under equipped, sometimes remote and near shifting battle frontlines. Sometimes the difficulties of access or levels of awareness and receptiveness around Covid-19, meant that people viewed it as more in their interest to just stay at home. Health professionals and health teams then had to find alternative ways to reach households and improve levels of public receptiveness, easing overall pressure on the health system by the second wave.

In this way some participants placed value on sub-local level health initiatives and described them as operating in more remote areas. For example a facility set up was in a critical area between Taiz and Lahj provided an option for people living in remote areas both sides of the governorate boundary and even as far as Aden. One of the participants in Taiz said,

"the people of "Al-Rajeha" sub-district collaborated and established medical camps equipped with temperature measuring devices and medicine. The medical camps received all cases coming from Aden, and ran PCR tests on them … It was a wonderful initiative." (Epidemiological Surveillance team leader, Taiz)

An August 2020 United Nations High Commissioner for Refugees (UNHCR) report called for local authorities to respect the protection principles of such centres, ensuring their setup upheld a 'civilian character'[57] in locating them away from battle frontlines. As frontlines shifted throughout the pandemic, ensuring safe location became particularly challenging for all local health responders. Among a range of positive answers describing centres doing their best with what they had, a number of participants described private centres as a positive resource in some areas contributing to the collective response. One participant in Hadhramaut described a health team specifically assigned,

"to carry out awareness campaigns, especially about prevention measures since society denied the existence of the pandemic. The purpose of coordination was to send a group of people to the frontlines to confront this pandemic in private centers. The duty of this group was to raise awareness" (Quarantine Centre Doctor, Hadhramaut).

Answers describing the formation of new Covid-19 focused technical departments were given in the context of some participants describing how coordination between government and health workers had been changed by Covid-19 specific initiatives and orders. Health workers had to continuously interface with conflict and societal dynamics, including remote frontline conditions, in order to improve the overall response by the arrival of the second wave around March 2021.[58] Awareness raising seemed critical given the more overt overall lack of health resources and given that the relationship between the public and receiving treatments was clearly complex for the various reasons so far discussed.

I. Closing the gaps; health professionals and health teams in communities

As set out earlier in the report, unsurprisingly given the fragile nature of the state many medical studies focus on the immediate and critical need for more medicines, early monitoring systems of diseases and tracking of transmission rates, with recent studies focusing on the lessons around individual vaccination drives and campaigns against diphtheria and polio in the context of Covid-19.[59] We too observed across all answers an overall consensus in both governorates that there simply was not enough by way of medicines, oxygen supplies, ventilators, Covid-19 testing kits and suitable quarantine centre capacity. In Taiz a participant summarised the health situation:

"There is no oxygen. The oxygen generator plant at Al-Thawra Hospital only produces oxygen for 500 tanks, which is not enough. The Emergency Center needs 250-300 oxygen tanks a day due to the continuous increase in the number of cases, whether in the Quarantine Center or the Emergency Center. The increasing number of cases has also put pressure on the Surveillance Team in respect to the patients' lack of compliance to the preventive and social distancing measures." (General Physician, Taiz)

This problem was echoed by participants in Hadhramaut who described there only being three quarantine centres around Seiyun, in what is the comparatively more stable area offering a level of political cohesion and social infrastructure.[60] One participant said,

"The second challenge [after people refusing to acknowledge the existence of Covid-19 and adhere to measures] is the lack of medical supplies, such as oxygen tanks and COVID-19 testing toolkits … The lack of medical supplies sometimes results in the death of people, for instance, due to the lack of oxygen tanks… There is a lack of awareness efforts, equipment, adequate quarantine centers, there are only three [centres]" (Executive director of Health and Development CSO, Hadhramaut)

Other studies rightly adopt a 'health security' framed approach,[61] stressing the effects of the conflict, the resulting collapse of healthcare infrastructure and calling for its immediate recovery. In cases where a link between conflict paradigms and health treatments is made, this link has also been understood to drive transmission rates.[62] Grounds have been made calling for more 'electronic Diseases Early Warning Systems' developed in Yemen in order to inform health agencies on how to cope with epidemics in particularly fragile or conflict-prone settings.[63] The link between conflict and health treatments has however also been made through minimal description of the 'security challenges' which create 'access issues'.[64] Some participants in our study offered examples of the logistical issues of accessing resources in the country, due to local authority dynamics. Descriptions involved challenges around governance, coordination, and local laws causing stockpiling of medicines and supplies to the point of expiry, with one participant in Hadhramaut saying, *"The ventilators were in the warehouse and were still in their boxes. We even got a ventilator from another hospital for fear that this patient would need it"* (Healthcare practitioner, Hadhramaut).

A range of diseases have been reoccurring either annually, or consistently throughout the conflict. The level of governance fragmentation and the increasingly complex local governance and security dynamics which shape 'access issues' alongside these health crises are not constants. When asked if health responses among CSOs and health professionals were well coordinated with public health official planning, one participant said,

> *"No, it was not well coordinated. I mean, for example, we submit a list of all our needs, but we receive shipments or support with things that we already have, and we do not need. It is impossible to return them, so we put them in warehouses. We cannot even sell those supplies and medicines that we stockpile in the warehouses in order to purchase other important things because it is illegal. They usually either spoil or expire"* (Director of Quarantine Centre, Hadhramaut).

Playing into challenges around effective supply, it has become clear as the conflict has changed over time, that both a lack of a transparent narrative around the extent of the Covid-19 crisis in Houthi-held areas, and the shifting lines of control between IRG and STC-held areas in the south, created a variety of mixed signalling from officials to citizens across regions about how to seek Covid-19 treatments.[65] Armed groups in these areas have also continued to seize aid resources in differing ways, with the Houthis continuously pressuring aid actors to hand over their assets and local officials in STC-held areas having been reported to stop aid workers originating from Houthi-held areas at checkpoints and also raiding aid warehouses. One report by the United Nations Office for the Coordination of Humanitarian Affairs (OCHA) cited that between June-December 2020, Covid-19 related aid deliveries had been impacted by 'long delays, harassment and irregular taxation fees.'[66]

II. Response teams navigating frontlines

In our data, even in Taiz where there was less of a sense of local authority or CSO efforts than in Hadhramaut, answers nonetheless described response team efforts in all forms as critical. As we noted earlier, local and sub-local health actors had to navigate a range of pressures whilst delivering Covid-19 treatments and responses to homes, including: lack of resources; shifting frontlines; and changing political dynamics between conflict parties which tend to converge with fluctuating official Covid-19 health orders.

There was a range of interpretations within a majority of answers describing 'house-to-house' efforts. The term was used to express a set of health actions including 'targeted' cleaning and disinfecting of houses in cases of a positive test; 'outreach' which tended to take the form of educational awareness raising; and direct reporting, treatment and monitoring of Covid-19 cases in the home. Answers revealed the ways in which these efforts had to traverse the entire range of social complexities described throughout this report that were developing alongside the spread of Covid-19. The complexities included: fear or reporting cases; notions of 'mercy injections'; lack of confidence or trust in official health institutions; and lack of receptiveness of the existence and threat of the new virus.

Members of health teams described a level of cooperation coming from armed actors in Taiz but described this as challenging when teams had to go into contested areas near frontlines or 'contact lines'. Generally in both governorates there was a common theme that in early phases of the first wave, there was a failure in communication between the acting armed authorities and their respective health offices ensuring the free movement and access of health teams to all areas across contested lines and through checkpoints. Participants in Taiz said this failure in communication could be negotiated in order to provide houses with treatments but that there was a sense that the complexity in how areas were controlled in Taiz created challenging conditions. Some districts are divided into Houthi-held and government controlled areas and one participant described accessing frontlines,

> *"the Response Team's car would not be allowed to enter, so the team members often had to go to these areas by foot … One of the team members was from outside the district (Qubati) and he used to face a lot of harassment and interrogation by the armed actors."* (Epidemiological response team coordinator, Taiz)

The health sciences and public health literature that cites the need to end the 'violation of medical neutrality'[67] that has become the accepted norm among all conflict parties has a clear resonance here. It seems unlikely however that medical studies and interventions can also adequately include the thorough political analysis of civic-authority relationships that we have called for in this report. This relates to a range of variations in public service given the extent of fragmentation at this stage in the conflict.

Such an analysis would necessarily involve analysis of public sentiment region-by-region in ways that take into account dynamics in areas held by all groups including the Houthis, and the relationships that are evolving in these areas which shape the daily issues that affect whether communities can achieve a level of stability as the conflict mutates around them. It seemed the security complexities of divided areas in Taiz were compounded by the failure in communication between health offices and their affiliated armed actors. Situations of uncertainty were created in which response team members could be threatened in providing a Covid-19 response:

> *"The Response Team was initially facing risks as one of the team members was threatened by Houthi officers in a security checkpoint, but after contacting the Houthi Health Office, the problem was resolved. Currently, the situation is better because the Response Team became known to all parties and it is allowed to mobilize freely."* (Epidemiological response team coordinator, Taiz)

In Hadhramaut, health teams described similar challenges:

> *"We were provided with official papers and special ID cards to prove that we work at the isolation center, which facilitate so many things for us. However, there is a challenge in terms of coordination … I think on the first day of Eid al-Fitr, there were very strict procedures in all security checkpoints. No one was allowed to pass, even medical teams, due to the lack of coordination."* (Healthcare Practitioner Covid-19 specialist, Hadhramaut)

Health team members in Hadhramaut did note improvements in authority coordination throughout the pandemic, gradually allowing teams more access, particularly towards the second wave as ID cards were issued and the identity of health teams became known among armed actors and authorities. One participant from Taiz also suggested a level of improvement, *"Cooperation between security and health authorities has improved in comparison to the pre-pandemic period."* (Epidemiological Surveillance official, Taiz). The role of health teams and the other local actors that supported them within communities should be viewed as having enabled such an improvement.

In relation to this and points already set out regarding health centres in remote areas and at frontlines, health teams and community networks appear increasingly central in creating these cooperation pulls in times of pressure during the conflict. One participant in Taiz also described the role of Aqils - who in traditional service delivery structures and under Yemeni law are considered as enforcement officers[68] - or community leaders and elders as being cohesive forces, *"Village Aqils or ordinary people would inform the Response Team about suspected cases through the phone, and it would send someone immediately."* (Epidemiological response team coordinator, Taiz). Similarly in Hadhramaut another participant said,

"The best preventive measure of COVID-19 is raising awareness through Khateebs [religious figures], as they have a tremendous influence. When we were discussing "Lockdowns," Khateebs, Sheikhs, religious scholars, and neighborhood Aqils instructed people to comply with it in their speeches, and society abided by their instructions, committed to the lockdown, and implemented the measures." (Laboratory Technologist, Hadhramaut)

The importance of efforts from the wider spectrum of local actors seems bound to the efforts of response teams. There is a depth of fragmentation that has now developed and is embedded in both the logistical realities involved in immediate health responses and in the long-term recovery of functioning public service. For so long people have ultimately had to navigate complex and shifting local networks of actors in order to secure available services and as long as this has continued or deepened these complimentary relationships between local actors have remained critical. The importance of response teams being able to mobilise and be present in community settings in a Covid-19 focused way was clear in answers across both governorates, *"the Quick Response Team provides services to the houses of patients. They provide some medicines, oxygen tanks, and protection equipment. They also provide health information and instructions to the families of the patients…"* (Nurse, Hadhramaut). In Taiz a team member summarised their role and ability to engage public sentiment around health treatments,

"If there was a report of an infected case, the Response Team would visit it immediately… People trusted the Response Team more [than public health officials] because they were deployed in all areas. Some people would go to the Response Team to check whether they had COVID-19 or not." (Epidemiological Surveillance team leader, Taiz)

III. Closing the gaps; CSOs as local levers of response

As previously discussed, it seems clear that there was some coordination among local authorities and health authorities in providing some resources and planning for Covid-19 treatments, encouraging a further level of pull between other local actors to respond. There was a sense among most participants that the local authorities and health offices acted in interconnected ways to channel available resources such as oxygen or medicines to those most critically in need. Answering on the range of health challenges being faced alongside the arrival of Covid-19 in their area, one participant described the convening role of CSOs in underpinning local authority efforts,

"[the local authority] held another emergency meeting with the directors of civil society organizations to help the Health Office provide medicines and other supplies because the patients inside the quarantine centers and the doctors themselves need food since they are not allowed to go home…the Health Office became incapacitated due the inability of our weak and fragile state to provide real isolation." (Executive director of Development CSO, Hadhramaut)

The idea that the state had adequately prepared for a pandemic has been questioned across the world, including throughout developed western states or the so called global north. In Yemen, in addition to the challenge of aligning 'official' Covid-19 orders with people's immediate need to leave their homes to secure basic supplies, services and livelihoods, the signalling around any public Covid-19 message appeared challenging for people to engage with. It led to other avenues of response opening up; notably through pre-existing community-led systems that had been used for managing cancer or other epidemics such as cholera.

In Hadhramaut, a few participants also described CSOs as active in house-to-house measures where their resources allowed them, with one person saying, "There are volunteer teams, for example, Hadramout Cancer Control Foundation, which recently had activities that focus on COVID-19. It carried out house to house awareness raising campaigns targeting women. It also provides cleaning and safety tools, such as face masks and gloves. There is also an organization, which is a midwives association that also implements house-to-house awareness raising campaigns." (Supervisor of Reproductive Health, Hadhramaut)

The extent to which CSOs could fill gaps left by official public health efforts is clear in these findings. Recent studies have cited 'inter-sectoral'[69] fragmentation which sees division at the top of the health administration system and challenges to collaboration between the Ministry of Population and Public Health (MoPHP) and other official health and infrastructure sectors. Participants in their study described the handling of other ongoing health challenges, most notably cholera, suggesting that discord among ministry departments often creates too many implementation agendas at the community level which do not always move in the same direction. If there could be increased collaboration 'of the MoPHP and other sectors like water and sanitation, the cleaning Fund, local authorities, the Ministry of Public Works and Ministry of Electricity, everyone working in this direction', this might be the most effective way to manage future cholera outbreaks.[70]

In our own findings, one participant said,

> *"There are organizations that were focusing on other epidemics, like cholera, and they would sometimes organize training courses, workshops, or seminars on the diseases, how they spread, and how to prevent their spread… With regards to the coronavirus, their focus was on providing protective equipment and literature on sanitation and biosafety…They would also provide protective equipment with the support of businesses."* (Public Health Lab Manager, Hadhramaut)

As discussed throughout, institutional coordination moving in the same direction also needs to be combined with people feeling able to engage with health issues and receive treatments. There were clear issues of trust and social stigma among Yemeni populations that should not simply be categorised as a lack of awareness relating to Covid-19. One CSO director in Taiz said, *"most Covid-19 cases were not reported until the symptoms worsened and it was too late to do anything"* where this also tended to be combined with *"fears of being quarantined and the social stigma that follows the patients"* (Director of Health CSO, Taiz). Yet, in Taiz, participants did also describe rates of reporting cases improving as the pandemic moved through waves, with another participant stating, *"In the beginning, there was social stigma in relation to COVID-19 and that made people hesitant about reporting suspected cases. Later, the situation changed. People reported suspected cases, and they had the phone numbers of the Response Team members."* In both governorates, our data seems to indicate that there was a clear relationship between the impact of these locally led efforts by CSOs and health teams, and levels of social trust towards Covid-19 treatments improving as people became more receptive to educational efforts. The same participant from Taiz said,

> *"Some people who suffered diseases such as cholera, did not go to the hospital because they were afraid of getting infected, so the majority refrained from going to health facilities…So we used to sit down with people and educate them about COVID-19, its symptoms and causes, methods of infection, and the preventive measures against it."* (Epidemiological Surveillance official, Taiz)

Equally impacting the task of health responders, additionally to people's relationships with the overall health system and social stigma around Covid-19, there were socio-economic aspects and conflict impacts which also shaped people's capacity to engage with pandemic threats. In Al-Mukalla, the capital city of Hadhramaut, the city has been an economic focal point on Yemen's south coast for trade and business and has experienced its population almost double since 2014[71] due to internally displaced people from the conflict. This rise in arrivals to the city even continued during AQAP's takeover of the city in 2015.[72] One participant in Al-Mukalla described people's interaction with the spread of diphtheria in the increasingly busy urban space,

> *"there are diseases and epidemics that people are not aware of, such as "Chikungunya" virus, and Diphtheria that have been prevalent before the outbreak of COVID-19. Children are the most susceptible to these diseases. Moreover, due to the poor economic conditions of the people, sometimes the parents of these children use treatments and medicine to reduce the symptoms, which prove ineffective, and they take the children to the hospital at a late stage when there are already complications. COVID-19 symptoms are clear, but Diphtheria symptoms are difficult to identify."* (Health and Population office official, Hadhramaut)

Aside from medical distinctions and identifying the shifting rounds of symptoms in various strains of the same virus and the clear public health messaging required to help people make such distinctions, in Yemen the ongoing challenges of containing other epidemics combined with conflict and socio-economic pressures to complicate conventional notions about how public reception of a severe health threat should unfold. CSOs sought to increase levels of engagement with the Covid-19 threat relevant to their setting and in doing so engendered an increase in levels of trust in people reporting to local health institutions. CSOs responded to the calls of health institutions using funding available to counter Covid-19 and where possible complimenting the efforts of health teams.[73] A participant in Hadhramaut described the centres that were public health authority run with the support of CSOs and perhaps more trusted by people in Wadi than privately run centres, *"Al-Hayat Hospital … There are people that come from far away places such as Abyan, which requires 5-7 hours of traveling"* (Medical Lab Technician, Hadhramaut). Participants in Taiz also suggested that there was some level of CSO presence in a collective sense rather than unilaterally, in partnership with the social fund for development (SFD). In the past the SFD has collaborated with local councils and CSOs to establish village cooperation councils to improve public services and social accountability.[74] Another participant from Taiz described the role of the social funds during the pandemic,

> *"the Social Funds provided us with some medical gowns and face masks after the first wave. As I have said earlier, training and support happened after the first wave of COVID-19 prevalence. The Social Funds provided us with personal protection equipment to carry out testing."* (Epidemiological Surveillance team leader, Taiz)

Conclusion and Key Findings

The research has demonstrated the deeply fragmented context of public authority in Yemen. In supporting a response to Covid-19, civil society actors, women and health actors have once again displayed a profound capacity as local actors to navigate complex conflict dynamics which create competing sources of authority. They show a capacity to operate where linear forms of governance are neither clear nor consistent; where both armed and unarmed, official and unofficial actors govern, the latter of which can and do in some geographical contexts represent the function of state institutions.

As the international community and policy audiences have gradually arrived at the acceptance of a 'reframing' of the peace process, but struggle as to the how, this research illustrates the extensive knowledge and capacities of CSOs and local health focused community actors in resolving public crises. Part of their capacity is their knowledge of how longer term public service and healthcare can function, as foundations to sustainable political settlement, whether the focus is regional or eventually national.

The findings here should be viewed as further indications of their capacity to be involved in civic processes which seek to formulate a future settlement, and in turn calls for their inclusion in instructing discourses aimed at 'reframing' the peace process. Now a necessary inclusion of long-term excluded branches of local and civic bodies.

Our recommendations for areas of further research 'set out below'

In supporting local CSOs and the wider spectrum of actors discussed here in bridging service gaps, there is need for more political analysis of civic-authority relationships in such a fragmented governance and conflict setting particularly when attempting to call for more public service resources or for improvement of the overall function of public service delivery.

There is need for further research and analysis in the following areas:

I. A deeper understanding of public sentiment around authority responses to crises at a regional level. There is a need to develop a gauge on civic receptiveness of all critical public service issues including receiving health treatments. Broader civic and community levels of confidence in the ability of differing forms of authority to ensure delivery and provision of critical basic daily supplies and public services should be viewed as intrinsically linked to longer term sustainable political settlement.

II. A better level of understanding as to current levels of public trust of and engagement with services provided by various forms of authority. Part of this understanding should involve locating and understanding the historical and local collective memory and position of civic engagement with the health system and health governance after seven years of violent conflict. This is part of building functioning community level public health which should be viewed as a fundamental part of longer term sustainable political settlement.

III. There is a need for increased support of local health actors and CSOs which are proving effective in raising awareness around diseases. Further support should be provided to community-led health systems managing a range of health issues in order that they can continue to focus on their primary functions rather than absorbing other health related pressures when they arise.

IV. Support for communities is needed to develop more effective ways of monitoring, circulating and governing health resources, and is central as part of the wider aim for all groups and donors to supply more health aid in Yemen overall. Innately, this will be shaped by research and better understanding of the regional relationships that can evolve in these areas between different parts of authority; in the case of this report, differing health and infrastructure ministries, local authorities and the government and armed actors. Involved in this there should also be better understanding of the daily issues shaping community stability that these authority relationships and dynamics invariably have an impact on. The governance complexities that shape 'access issues' for health supplies or basic goods at the market do not remain constant.

Appendix 1: Interview questionnaire

Introductions

Participant Information and Participant verbal consent form

Please note this is being done remotely and verbally with information held in such a way that keeps names off documents, due to: (a) covid-19 safety (b) lack of reliable and secure internet (c) the need for forms not to pass electronically or be carried around any area. Answers are recorded on kobobox tool which works with and without internet, and where information can be uploaded and deleted immediately.

"My name is _____. My colleagues are: _____. We work with Yemen Polling Center in a collaboration with the Political Settlements Research Programme at the University of Edinburgh, Scotland and on this basis they will also have access to your answers and data as part of this research. They will ensure that your data and answers are handled securely following YPC's ethical standards and their own. Interviews will be recorded by way of notes, and if agreed electronic recording.

We are carrying out research on evaluating the overall responses to COVID-19 by formal and civil society health professionals and actors in the city. In particular, we wish to understand the connections between COVID-19 responses and the ongoing effects of conflict on healthcare. For this reason, we are conducting interviews with healthcare providers and civil society organization members engaged in COVID-19 responses. Information will be used for reports by Yemen Polling Center and University of Edinburgh.

Your name and identity will remain anonymous and will not appear in any research materials and/or final reports. By proceeding with the interview, you are confirming that you are at least 18 years old and agreeing to participate in this study.

Your participation in this research is completely voluntary and you can withdraw at any time. You are free to skip any question you choose. Please confirm whether you consent to the interview and its recording on this basis.

If you have any further queries now or at the end of the interview, and wish to contact members of the research team we can give you emails. Have you any questions before we begin?

Complete the form below with the answers provided during the meeting.

Demographics

D1 Date:	
D2 Governorate:	
D3 District:	
D4 Sub-district	
D5 Profession/Title (making sector: official health employee or CSO):	
D6 Gender	

Section One: Questions relating to understanding how the pandemic is being prioritised and responded to?

1. Is Covid-19 the main health challenge you are dealing with at present in your area? Follow up if needed: If not what are the main health challenges you are facing?

2. Has responding to the Covid-19 pandemic put new stresses on the health system? If so, what are the main new challenges which the pandemic has given rise to?

3. What specific facilities and resources are there in your area to identify and treat covid19, including testing, quarantine, treatment or vaccine resources and facilities?

4. How effective are these facilities (and explain)?

5. Are there different impacts on men and women in how they access prevention or treatment for Covid-19? Please explain.

Section Two: Relationships between different types of health professionals, and with CSOs

6. Who do you see as being most important providers of health resources and treatment of Covid19 in local areas? And why?

7. How has coordination between government and health workers been changed, if at all, by Covid-19 health care initiatives?

8. What was the role of health-focused CSOs in your community before the arrival of Covid-19? How has the arrival of Covid-19 impacted their role, or drawn other CSOs into health provision?

9. Are CSO health responses well coordinated with (a) public health official planning and (b) activities of physicians such as doctors and nurses? Please explain

10. Who do people trust the most with respect to Covid-19 information and access to health care (a) public health officials, (b) physicians such as doctor and nurses, and (c) civil society organisations with a health focus? Follow up: Does this impact where people go to, to access Covid-19 tests, or treatment?

11. What do you think is going to happen in the future with a vaccination programme in your area? Follow up: How confident would people be in receiving a vaccine and why?

Section Three: Covid-19 Prevention

12. What were the most effective Covid-19 prevention measures and awareness raising measures? Who put these in place (were these 'official' or 'unofficial and informal'), and how well were they enforced?

13. Have Covid-19 prevention measures such as lockdown affected your health care duties and how you undertake them?

14. Do you think people feel able or supported enough to conform with these prevention measures or is there a pressure for life to return to normal? [Enumerator to probe] Please explain.

15. Are there any 'house to house' Covid-19 measures? If so, what are these and which health actors are leading these efforts?

Section Four: Covid-19 and wider conflict environment and security settings

16. Describe any Covid-19 related safety concerns that health workers have when undertaking health treatments? [Enumerator to probe] What are these? lack of equipment, security)

17. In regard to the conflict, do you have any physical safety concerns because you have to handle health resources or basic supplies, or have you heard of anyone having these concerns? If so can you describe?

18. Have you noticed any issues or changes in accessing basic goods or health services as a result of how Covid-19 measures are being enforced? Does this differ for men than for women?

19. How do armed actors treat health actors at joint operation locations such as checkpoints since the arrival of Covid-19? Does this differ for men than for women?

20. How safe do you feel reporting cases of Covid-19 in your area and why? Describe any barriers to citizens reporting cases of Covid-19 to health facilities or the surveillance committee or organisation?

21. Since the arrival of Covid-19 how have medical centres or Covid-19 facilities been monitored and protected? How has this been different to before Covid-19?

Closures

Section enumerator Observations

Obs1. Do you think the respondent was comfortable answering the questions? Why?	
Obs2. Do you think that the respondent was open and honest when answering the questions? Why?	
Obs3. Any other comments about the respondent's behavior during the interview?	
Obs 4: tof end of interview	

Enumerator to thank respondent: *Thanks so much for your time, I really appreciate you taking the time to answer these questions.*

Endnotes

[1] Al-Hamdani., R., and Transfeld., M. (2021) *'An Opportunity in Crisis? Policy Report April 2021 Covid-19 and State-community Relations in Taiz'.* Research report, Yemen Policy Center, Wilmersdorferstrasse 122-123 10627, Berlin. Available at: https://www.yemenpolicy.org/wp-content/uploads/2021/04/Covid-19_and_State_community_Relations_in_Taiz.pdf

[2] Cammack., P., et. Al. (2017). *'Arab Fractures: Citizens, States and Social Contracts'.* Research report, Carnegie Endowment for International Peace, Washington. Available at: https://carnegieendowment.org/files/Arab_World_Horizons_Final.pdf

[3] Diwan., Kristin Smith., et al. (2018) *The Geoeconomics of Reconstruction in Yemen.* Policy paper 2(2018), The Arab Gulf States Institute, Washington. Available at: https://agsiw.org/wp-content/uploads/2018/11/Yemen_UAESF_ONLINE.pdf

[4] World Bank. (2021) *Health Sector in Yemen.* Policy Note, World Bank. Available at: https://thedocs.worldbank.org/en/doc/8aca65c4db5338cd3a408c0d4a147123-0280012021/original/Yemen-Health-Policy-Note-Sep2021.pdf

[5] Disaster's Emergency Committee (2021). *Yemen Hit by Third Wave of Covid As Millions On The Brink Of Starvation.* Online article, Disaster Emergency Committee. Available at: https://www.dec.org.uk/article/yemen-hit-by-third-wave-of-covid-as-millions-on-the-brink-of-starvation

[6] WHO.(2022) *Yemen country page.* Live online country health status, WHO. Available at: https://covid19.who.int/region/emro/country/ye

[7] ACAPS.(2022) *Yemen Covid-19: Current situation and reasons for vaccine hesitancy.* Thematic report, ACAPs Analysis Hub. Available at: https://www.acaps.org/special-report/yemen-current-covid-19-situation-and-vaccine-hesitancy

[8] UN OCHA. (2022) *Global Humanitarian Overview: Yemen.* Summary report, United Nations Office for the Coordination of Humanitarian Affairs. Available at: https://gho.unocha.org/yemen

[9] UN Yemen. (2019) *Yemen: 2019 Humanitarian Needs Overview.* Summary report, United Nations. Available at: https://yemen.un.org/en/11690-yemen-2019-humanitarian-needs-overview

[10] Mukhashaf., R. (2021) *Three protesters killed in south Yemen as conflict cripples economy.* Online article, Reuters. Available at: https://www.reuters.com/world/middle-east/protests-erupt-south-yemen-conflict-cripples-economy-2021-09-15/

[11] Human Rights Watch. (2020) *Deadly Consequences Obstruction of Aid in Yemen During Covid-19.* Summary Report, Human Rights Watch. Available at: https://www.hrw.org/report/2020/09/14/deadly-consequences/obstruction-aid-yemen-during-covid-19#:~:text=Deadly%20Consequences,-Obstruction%20of%20Aid&text=The%20Houthi%20armed%20group%20and,to%20the%20Covid%2D19%20pandemic

[12] Debriefer: Yemen News. (2020) *STC hands Yemeni Aden COVID-19 center to MSF.* Online news article, Debriefer. Available at: https://debriefer.net/en/news-17521.html

[13] Human Rights Watch. (2021) *Yemen: Houthis Risk Civilians' Health in Covid-19.* Online news article, Human Rights Watch. Available at: https://www.hrw.org/news/2021/06/01/yemen-houthis-risk-civilians-health-covid-19

[14] Al-Hamdani., R., and Lackner., H. (2020) *Talking to the Houthis: How Europeans can promote peace in Yemen.* Policy brief, European Council on Foreign Relations. Available at: https://ecfr.eu/publication/talking_to_the_houthis_how_europeans_can_promote_peace_in_yemen/

[15] Baron., A., and Al-Hamdani., R. (2019) *The Proxy War Prism on Yemen: View from the City of Taiz.* Online report, New America. Available at: https://www.newamerica.org/international-security/reports/the-proxy-war-prism-on-yemen/

[16] Scott., B. (2020) *The Road to Peace Runs Through Taiz.* Research report, DeepRoot consulting Yemen, London. Available at: https://www.deeproot.consulting/single-post/2020/06/08/the-road-to-peace-runs-through-taiz

[17] Al-Deek., A., et. al. (2018) *Pathways for Peace & Stability In Taiz, Yemen: An Analysis of Conflict Dynamics and Windows of Opportunity.* Analysis report, Search for Common Ground. Available at: https://www.sfcg.org/wp-content/uploads/2018/07/Yemen_whitepaper_dr2_July-2018.pdf

[18] Farouq., K. (2021) *Short on Trust, Weapons and Planning, Government Surge in Taiz Fails.* Analysis report, Sana'a Center for Strategic Studies, Sana'a. Available at: https://sanaacenter.org/publications/analysis/13952

[19] Goldberg., M. (2021) *How a Rivalry Over Yemen's Currency Is Fuelling the Civil War.* United Nations Dispatch. Available a: https://www.undispatch.com/how-a-rivalry-over-yemens-currency-is-fueling-the-civil-war/ . See also, Yemen's Economy Tracking Initiative. Available at https://yemen.yeti.acaps.org

[20] Alyemany., K. (2022) *'I'm the former foreign minister of Yemen. My country is starving and needs the international community's help'.* MENA blog, Atlantic Council. Available at: https://www.atlanticcouncil.org/blogs/menasource/im-the-former-foreign-minister-of-yemen-my-country-is-starving-and-needs-the-international-communitys-help/

[21] International Crisis Group report. (2022) 'Brokering a Ceasefire in Yemen's Economic Conflict'. Middle East report, International Crisis Group, Brussels. Available at: https://www.crisisgroup.org/middle-east-north-africa/gulf-and-arabian-peninsula/yemen/231-brokering-ceasefire-yemens-economic-conflict

[22] Hatem., M. (2020) *Protests Erupt in Yemen Over Currency Crisis.* Online article, Bloomberg News. Available at: https://www.bloomberg.com/news/articles/2020-12-12/protests-erupt-in-yemeni-city-of-taiz-over-currency-devaluation

[23] Farouq., K. (2021) *Taiz: A Hotbed of Irregular Militias.* Analysis report, Sana'a Center for Strategic Studies, Sana'a. Available at: https://sanaacenter.org/publications/analysis/15055

[24] Berghof Foundation. (2020) *Mapping of Local Governance in Yemeni Governorates.* Mapping report, Berghof Foundation governance, Altensteinstrasse 48a Berlin. Available at https://berghof-foundation.org/library/mapping-of-local-governance-in-yemeni-governorates

[25] Al-Hamdani., R., and Ardemagni., E. (2021) *Yemen: The GPC and Islah After 2011.* Analysis report, Italian Institute for International Political Studies (ISPI), Milan. Available at: https://www.ispionline.it/en/pubblicazione/yemen-gpc-and-islah-after-2011-29772

[26] Al-Quds Al-Arabi news. (2021) *Hundreds demonstrate in Taiz, denouncing corruption and the deterioration of services.* Online news article. Available at: https://www.alquds.co.uk/المئات-يتظاهرون-في-تعز-تنديدا-ب/

[27] UN OCHA. (2021) *Humanitarian Needs Overview Yemen.* Humanitarian Programme Cycle Report, UN Office for the Coordination of Humanitarian Affairs. pg 35. Available at: https://reliefweb.int/report/yemen/yemen-humanitarian-needs-overview-2021-february-2021-enar

[28] Al-Hamdani., R., and Lackner., H. (2020) *War and pieces: Political divides in southern Yemen.* Online research article, European Council on Foreign Relations. Available at: https://ecfr.eu/publication/war_and_pieces_political_divides_in_southern_yemen/

[29] Kendall., E. (2018) *Impact of the Yemen war on militant jihad in Politics, Governance, and Reconstruction in Yemen.* Research report, Project on Middle East Political Science (POMEPs), George Washington University. Available at: https://pomeps.org/wp-content/uploads/2018/02/POMEPS_Studies_29_Yemen_Web-REV.pdf

[30] Ibid.

[31] Ardemagni., E. (2017) *Emiratis, Omanis, Saudis: the rising competition for Yemen's Al Mahra.* Blog post, London School of Economics. Available at: https://blogs.lse.ac.uk/mec/2017/12/28/emiratis-omanis-saudis-the-rising-competition-for-yemens-al-mahra/#comments. See also, updated version by same author, (2020) *Caught in the Gulf Rivalry: Yemen's Al Mahra Avoids the War Despite 'Collateral Militarisation'.* Available at: https://blogs.lse.ac.uk/mec/2020/12/11/caught-in-the-gulf-rivalry-yemens-al-mahra-avoids-the-war-despite-collateral-militarisation/

[32] Saudi Arabian Gov. (2020) *Yemen's Hadhramaut Province a Beneficiary of Saudi Health, Education, Energy and Water Sector Support.* Online news and press release. Available through Reliefweb at: https://reliefweb.int/report/yemen/yemen-s-hadhramaut-province-beneficiary-saudi-health-education-energy-and-water-sector

[33] WAM Emirate news. (2017) *ERC signs two MoUs to support water projects, education in Wadi Hadhramaut.* Online news and press release. Available through Reliefweb at: https://reliefweb.int/report/yemen/erc-signs-two-mous-support-water-projects-education-wadi-hadhramaut

[34] United Arab Emirates Gov. (2021) *ERC begins construction, restoration of 8 medical establishments in Hadramaut.* Online news and press release. Available through Reliefweb at: https://reliefweb.int/report/yemen/erc-begins-construction-restoration-8-medical-establishments-hadramaut

[35] Forster., R. (2019) *Yemen's 'Handshake moment': What other peace processes can tell us about the Riyadh Agreement.* Online research article, CMI. Available at: https://www.cmi.no/news/2334-yemens-handshake-moment-what-other-peace-processes-can-tell-us-about-the-riyadh-agreement

[36] Lokot., M. (2021) *Whose Voices? Whose Knowledge? A Feminist Analysis of the Value of Key Informant Interviews.* International Journal of Qualitative Methods. Feb 27;20, pp 1-8. https://doi.org/10.1177%2F1609406920948775. Available at: https://journals.sagepub.com/doi/full/10.1177/1609406920948775

[37] Op. cit. Al-Hamdani., R., and Lackner., H. (2020) *Talking to the Houthis: How Europeans can promote peace in Yemen*

[38] Nasser., A. (2021) *Health Workers Abandoned in Yemen's Covid-19 Fight.* Online news article, Human Rights Watch. Available at: https://www.hrw.org/news/2021/07/07/health-workers-abandoned-yemens-covid-19-fight

[39] Reliefweb (2021) *Restoring Hope, Saving lives: COVID-19 Response Project in Yemen.* Development report, World Bank. Available at: https://reliefweb.int/report/yemen/restoring-hope-saving-lives-covid-19-response-project-yemen. See also World Health Organisation (WHO) announcement on the roles of rapid response teams in responding to Covid-19 in Yemen, and in other contexts such as Kenya and Somalia, April 2020.

[40] WHO Regional Office for Africa. (2020) *Rapid Response Teams are racing against the spread of COVID in Africa.* Online news article, WHO Africa. Available at: https://www.afro.who.int/news/rapid-response-teams-are-racing-against-spread-covid-africa and see also, WHO. (2020) Somalia's polio teams help combat COVID-19. Online news article, WHO. Available at: https://www.who.int/news-room/feature-stories/detail/somalia-s-polio-teams-help-combat-covid-19

[41] Transfeld., M., et al. (2021) *Local Security Governance in Yemen in Times of War The Cases of al-Hudayda, Ta'iz and Aden.* Research report, Yemen Policy Center, Berlin. pg 5. Available at: https://carpo-bonn.org/en/local-security-governance-in-yemen-in-times-of-war/

[42] Ibid.

[43] Ardemagni., E. (2020) *Government, De Facto Authority and Rebel Governance in Times of COVID-19: The Case of Yemen.* Research report, Project on Middle East Political Science (POMEPS). Available at: https://pomeps.org/government-de-facto-authority-and-rebel-governance-in-times-of-covid-19-the-case-of-yemen#_edn13

[44] Ibid.

[45] Almasdar. (2020) *Endowments minister suspends directors for failure to comply with public prayer ban.* Online news article, Almasdar news. Available at: https://al-masdaronline.net/local/544

[46] Op. cit. Ardemagni., E. (2020)

[47] Basalmah, B., (2018) *Local Governance in Yemen: Challenges and Opportunities.* Local Governance: Engine for Stability in Yemen. Research report, Berghof Foundation, Altensteinstrasse 48a Berlin. pg 15. Available at: https://berghof-foundation.org/library/local-governance-engine-for-stability-in-yemen

[48] Op. cit. Transfeld., et al. (2021)

[49] Op. cit. Ardemagni., E. (2020)

[50] Op. cit. Al-Hamdani, R., and Transfeld, M. (2021). pg 15

[51] Ibid. Al-Hamdani, R., and Transfeld, M. (2021). pg 15

[52] Ghafoor., N. (2021) *Seeking healthcare in Taiz, a city split by a frontline.* Project update, Medecins Sans Frontieres (MSF) health. Available at: https://www.msf.org/seeking-healthcare-yemen-city-split-frontline

[53] Balakrishnan., V.S. (2017) *Cholera in Yemen.* The Lancet Infectious Diseases. Jun 21; 17(7) https://doi.org/10.1016/S1473-3099(17)30352-3 Available at: https://www.sciencedirect.com/science/article/pii/S1473309917303523?via%3Dihub

[54] Op. cit. Al-Hamdani, R., and Transfeld, M. (2021) pg. 13

[55] Ibid. pg. 8

[56] UNHCR. (2020) *UNHCR continues to adapt to challenges related to COVID-19.* Yemen Fact Sheet report, UNHCR. Available at: https://reporting.unhcr.org/sites/default/files/UNHCR%20Yemen%20%20COVID-19%20Update%20-%20August%202020.pdf

[57] Mohammed., H. (2021) *COVID-19 support desperately needed as second wave overwhelms Yemen.* Yemen Covid-19 Press Release, Medecins Sans Frontieres (MSF). Available at: https://www.msf.org/covid-19-support-desperately-needed-second-wave-overwhelms-yemen

[58] Ongwae., K., et al. (2020) *Lessons from Yemen: Diphtheria and Polio Campaign in the Context of COVID-19.* Global Journal of Health Science. Oct 30; 12(12). https://doi.org/10.5539/gjhs.v12n12p141. Available at: https://pdfs.semanticscholar.org/398a/cfcdcf1509d82b03897c76a185e4a9069895.pdf

[59] Op. cit. Al-Hamdani., R., and Lackner., H. (2020)

[60] Cole., J., et al. (2021) *Conflict, Collapse and Covid-19 Lessons from Yemen on Elevated Disease Risk in Regions Under Stress.* The RUSI Journal. Jul 20;166(3) Available at: https://www.tandfonline.com/doi/full/10.1080/03071847.2021.1952106

[61] Cole., J. (2014) *Conflict, Post-Conflict and Failed States: Challenges to Healthcare.* The RUSI Journal. Sep 3;159(5): 14-8. Available at: https://rusi.org/explore-our-research/publications/rusi-journal/conflict-post-conflict-and-failed-states-challenges-healthcare

[62] Dureab., F., et al. (2020) *Assessment of electronic disease early warning system for improved disease surveillance and outbreak response in Yemen.* BMC Public Health 20, 1422 (2020). https://doi.org/10.1186/s12889-020-09460-4. Available at: https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-020-09460-4

[63] Op. cit. Ongwae., et al. (2020)

[64] Human Rights Watch (HRW). (2020) *Deadly Consequences: Obstruction of Aid in Yemen During Covid-19.* Online summary report, Human Rights Watch. Available at: https://www.hrw.org/report/2020/09/14/deadly-consequences/obstruction-aid-yemen-during-covid-19#_ftn118

[65] Office for Coordination of Humanitarian Affairs (OCHA). (2020) *Humanitarian Response Plan: Yemen report.* Extension country report, OCHA. Available at: https://reliefweb.int/sites/reliefweb.int/files/resources/Extension%20Yemen%20HRP%202020_Final%20%281%29.pdf

[66] Mohareb., A., and Ivers., L. (2019) *Disease and Famine as Weapons of War in Yemen.* Research article, The New England Journal of Medicine, 380:109-111 doi: 10.1056/NEJMp1813831. Available at: https://www.nejm.org/doi/10.1056/NEJMp1813831?url_ver=Z39.882003&rfr_id=ori%3Arid%3Acrossref.org&rfr_dat=cr_pub++0pubmed

[67] Al-Dawsari., N. (2021) *Fantasies of State Power Cannot Solve Yemen's War.* Report, The Century Foundation. Available at: https://tcf.org/content/report/fantasies-state-power-cannot-solve-yemens-war/?session=1

[68] Dureab., F., et al. (2021) *Forms of Health System Fragmentation During Conflict: The Case of Yemen.* Research article, Frontiers in Public Health; Disaster and Emergency Medicine, 9:659980 doi: 10.3389/fpubh.2021.659980. Available at: https://www.frontiersin.org/articles/10.3389/fpubh.2021.659980/full

[69] Ibid.

[70] Abdullah bin Nabhan., N. (2021) *Expat Returnees and Mukalla's Entrepreneurial Resilience.* Research report, Sana'a Center and Yemen Peace Forum, Sana'a. pg. 5. Available at: https://sanaacenter.org/ypf/expat-returnees-and-mukallas/

[71] Al-jaedy., A. (2021) *Before Kabul, a Yemeni city was taken over by Al Qaeda. This is its story.* Online news article, openDemocracy. Available at: https://www.opendemocracy.net/en/north-africa-west-asia/before-kabul-a-yemeni-city-was-taken-over-by-al-qaeda-this-is-its-story/

[72] CSSW. (2020) *Medical supplies to Al-Hayat Hospital in Hadhramout funded by Turkish IHH organization.* News report, Charitable Society for Social Welfare Yemen. Available at: https://csswyemen.org/index.php/news-2/d4r5t

[73] Qassim., A, Amin., L, Transfeld., M, Strzelecka., E. (2020) *The Role of Civil Society in Peacebuilding in Yemen.* Policy Brief, Center for Applied Research in Partnership with the Orient. Pg. 8. Available at: https://carpo-bonn.org/wp-content/uploads/2020/05/carpo_brief_18_04-05-20_EN.pdf

About Us

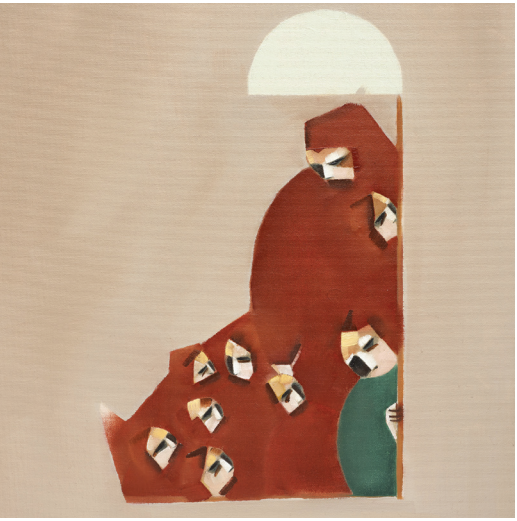
PeaceRep is a research consortium based at Edinburgh Law School. Our research is rethinking peace and transition processes in the light of changing conflict dynamics, changing demands of inclusion, and changes in patterns of global intervention in conflict and peace/mediation/transition management processes.

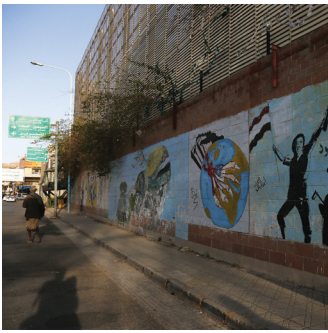
PeaceRep.org

PeaceRep: The Peace and Conflict Resolution Evidence Platform | @Peace_Rep | peacerep@ed.ac.uk

School of Law, University of Edinburgh, School of Law, Old College, South Bridge, EH8 9YL

PeaceRep is funded by the Foreign, Commonwealth and Development Office (FCDO) UK





PeaceRep: The Peace and Conflict Resolution Evidence Platform
peacerep@ed.ac.uk | https://peacerep.org | @Peace_Rep_

University of Edinburgh, School of Law, Old College, South Bridge EH8 9YL

PeaceRep is funded by the Foreign, Commonwealth and Development Office (FCDO), UK