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Exploring the localisation of COVID-19 prevention messages in eThekwini communities

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Declaration

I hereby declare that the work presented in this thesis entitled: Exploring the localisation of COVID-19 prevention messages in eThekwini communities was submitted at the Centre for Communication, Media and Society, the University of KwaZulu-Natal under the supervision of Professor Eliza Govender. This work has not been submitted in any other institution. The work presented herein is solely my work unless specific references and acknowledgements as taken from sources have been provided.

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Abstract

The global COVID-19 pandemic disrupted communities and healthcare systems worldwide. In early 2020, the World Health Organisation (WHO) recommended a range of preventive measures aimed at reducing the spread of COVID-19 which included regular handwashing or sanitising, social distancing and the use of face masks. These measures were adopted by governments around the globe including South Africa. However, these strategies were predominantly based on biomedical and behavioural approaches, with limited consideration of the socio-cultural context in which health decisions and preventive actions are taken. Evidence from past and ongoing pandemics, such as Ebola and HIV, demonstrates that excluding local knowledge, cultural norms, and community-based insights in health messaging can limit the effectiveness and uptake of these interventions.

Adopting a photovoice methodology embedded within the community-based participatory approach, this study explored the local interpretation, adaptation and reconstruction of the dominant COVID-19 prevention messages that included regular hand washing and sanitising, the use of face masks and social distancing in three eThekwini communities (including Umbumbulu - a rural community, Cato Crest - an informal settlement and Umlazi a township). Participants were recruited purposively in each community. Data was collected in two phases with the first phase taking place between March and April 2021 during the adjusted level 2 lockdown, and the second phase was during the adjusted level 1 lockdown, between October and November 2021. The study adopted a three-staged data collection process which included (1) the introductory sessions with participants to inform them about the study and data collection methods (2) the photovoice data collection stage in which participants went out to their communities to capture photos that reflected their understanding, interpretation and adaptation of the COVID-19 prevention messages within their local contexts and (3) the focus group discussion which included detailed discussions on the photos collected and explored other related themes. Data was analysed thematically.

Key findings from this study highlighted that people's understanding and interpretation of COVID-19 prevention messages evolved over time. During the first phase of data collection, people focused on making sense of these messages within their local cultural contexts. Whereas, the second phase found that there was more familiarity with the dominant messaging and localised interpretation of these messages to fit specific contexts. While there were mixed reactions to adopting COVID-19 prevention messages, cultural beliefs and values often conflicted with full

compliance, challenging widespread acceptance of these measures within local communities. This study highlighted the importance of integrating community perspectives and contextual nuances in the development of health communication strategies to enhance their effectiveness and sustainability in managing future pandemics. These insights can guide the design of culturally grounded public health interventions and strengthen future pandemic communication strategies to ensure greater trust, uptake, and long-term adherence to prevention measures.

Keywords: COVID-19 prevention, cultural contexts, community-based participatory research, photovoice, message reconstruction

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Acronyms and Abbreviations

AIDS - Acquired immunodeficiency syndrome

CCA - Culture-Centered Approach

FGD - Focus Group Discussion

HIV - Human Immunodeficiency Virus

KZN - KwaZulu-Natal

WHO - World Health Organisation

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Chapter 1: Introduction to the study

1.1 Introduction

The outbreak of COVID-19 in late 2019 in Wuhan, China, marked the beginning of a global health crisis that rapidly spread across continents, affecting millions of lives (Zhu et al., 2020; Wu et al., 2020). With no medical interventions initially available to either prevent the disease, the novel coronavirus overwhelmed healthcare systems and disrupted economies worldwide. Within a few months, the World Health Organization (WHO) declared COVID-19 a pandemic, highlighting the urgent need for containment measures. In the absence of biomedical solutions, the WHO recommended a set of non-pharmaceutical interventions which were swiftly adopted by governments to curb the spread of infection (WHO, 2020; Buheji et al., 2020; Singh, 2020). The proposed prevention strategies included practicing physical distancing as this would reduce physical interactions with others thereby reducing the spread of the virus. While WHO recommended a physical distance of one metre, country governments adapted this differently with some recommending spacing of 1.5 metres and 2 metres (Singh, 2020). The second prevention strategy was the regular washing of hands and sanitising. In this instance WHO recommended thorough washing of hands with soap and clean water for about 20 seconds (Biezen et al., 2019). The last strategy was the universal use of face masks regardless of the COVID-19 status, this was to ensure that the spread of the disease is contained. These measures became the primary line of defence as scientists were working on vaccine trials.

While effective from a public health perspective, these preventative strategies were developed with the sole focus of trying to minimise infection rates, with minimal recognition of the cultural contexts that define the adoption of health measures within local communities (de Bruin et al., 2020). Focussing on the sciences with minimal consideration and understanding of the local communities in which these prevention strategies were to be implemented was problematic in its nature as this presented a narrow focus to health challenges as was observed in the early years of the Ebola outbreak and the HIV spread (Kaplan et al., 2015). The exclusion of communities from COVID-19 prevention efforts undermined the essential interactive dialogues that foster the adoption of health interventions and disease prevention measures within localised contexts. Decades of research and programme implementation have shown the effectiveness of a comprehensive approach to the adoption of health interventions, as such it was problematic to isolate COVID-19 from the lessons learned from other pandemics as the key factors and consideration, such as the role of cultural contexts in health messaging could still be applicable.

In other words, in order to construct effective and responsive COVID-19 prevention measures and strategies, local communities could have been given voice and a bottom-up approach be adopted, advancing a people's science approach that appreciates that a blanket approach in the prevention messaging of COVID-19 was highly ineffective and on-going research in various health fields is making this clear.

Furthermore, the COVID-19 pandemic exposed the long-entrenched inequalities within societies and the lack of basic resources such as water and sanitation. The hand washing measure, for example, arguably exposed the poor sanitation challenges in many communities as most communities in townships, rural and informal settlements do not have access to clean running water. This posed problems to how people within these communities were able to practice regular hand washing given their harsh realities. Moreover, physical distancing was a far-fetched thought for many people in densely populated communities, meaning that the physical distancing recommendation could only be exercised by some but excluded a number of people within society who were vulnerable to COVID-19 infection (Institute of Medicine, 2013; Napier et al., 2017).

Given the early challenges with the public health focussed communication on COVID-19, this study sought to explore the interpretation, adaptation and reconstruction of the dominant prevention messages (hand washing, use of face masks and social distancing) within specific communities in EThekwini. The study sought to move beyond Eurocentric formulations of health that tend to individualise health prevention and interventions thereby paying less attention to the role of culture in the creation of health meanings and uptake of health interventions and messages.

COVID-19 prevention messages were primarily framed and promoted as explicit calls to action, directing individuals to engage in specific behaviours such as mask-wearing, physical distancing, and regular handwashing (WHO, 2020; CDC, 2020). These messages were not abstract information statements but were communicatively constructed as prescriptive instructions embedded within a global public health emergency. In such contexts, interpretation cannot be separated from enactment, as individuals often process, internalise, and express the meaning of prevention messages through their behavioural responses (Noar & Austin, 2020). For example, a message instructing "wash your hands for 20 seconds" inherently invites an action-oriented interpretation, and its meaning is often reflected in the ways individuals adapt and perform handwashing in their own contexts. Similarly, public health directives on avoiding gatherings were interpreted and negotiated through context-specific enactments, such as altering funeral arrangements or adapting workplace interactions. Behavioural enactments therefore serve not

merely as compliance outcomes but as visible, lived expressions of how messages are interpreted, adapted, and reconstructed within cultural and structural realities (Dutta, 2018). Understanding message interpretation during the COVID-19 pandemic thus requires attending to the inseparable link between communicative content and behavioural responses.

1.2 Problem Statement

The rapid spread of the COVID-19 global pandemic presented numerous challenges to many countries including South Africa which is still grappling with the triple challenges of unemployment, inequality and poverty. In efforts to reduce infections within communities, international health bodies such as the World Health Organisation and the Centre for Diseases Control recommended a set of prevention strategies to curb the spread of new infections and country governments, adopted these strategies. These strategies were disseminated widely through mass media and other communication channels to maximise reach. However, much of this communication reflected a top-down, science-driven framing, with limited engagement in understanding how communities could realistically adopt these measures within their socio-cultural contexts. The effectiveness of these strategies was widely understood from a science perspective with minimal consideration of the socio-cultural contexts in which communities exist.

Similarly, the dominant health communication literature on COVID-19 prevention largely emphasised biomedical effectiveness, leaving a gap in examining how local knowledge systems, lived experiences, and cultural practices shape the uptake of such measures (Hanafiah et al., 2021; Berg et al., 2021). The exclusion of a people-centred focus in the adoption of the COVID-19 prevention strategies presented challenges to the willingness of communities to adopt, the ability and agency of communities in taking up these strategies.

This study drew on community-based participatory research (CBPR) approach which prioritise equitable collaboration and shared ownership of knowledge, and the culture-centred approach to health communication, which foregrounds community voices in defining problems and co-creating solutions, to address this gap. It recognised lessons from the historical progression with HIV preventative communication, and recognised the decades of research, advocacy and community-driven responses that advance tailored communication with community inclusivity. In this vein, the study explored how communities interpreted, adapted and reconstructed the COVID-19 prevention messages within their local contexts.

1.3 Research questions

The study addressed the following research questions;

1. How did various rural, informal and township residents understand and interpret the COVID-19 prevention messages during the lockdown period?
    a. In what ways did communities respond to the sciences and the dominant COVID-19 prevention approach during the lockdown period?
2. How did rural, informal and township communities re-construct the dominant COVID-19 prevention messages during the lockdown period?
    a. In what ways does culture influence this reconstruction of the dominant COVID-19 prevention messaging in these three locations?
3. How can a people's science response advance the future of disease prevention messaging beyond COVID-19?
    a. What key prevention messages did communities construct in responding to COVID-19?

1.4 Understanding COVID-19 prevention

On the 7th of March 2020, the World Health Organisation released interim guidelines on preventing the spread of new infections through the development of coordination mechanisms that are not limited to health but also include key areas such as transportation, travel and other sectors encompassing society as a whole (WHO, 2020c; Guner et al., 2020). In addition to these were guidelines on case identification and isolation or quarantine to prevent disease spread as well as practising safety measures including personal hygiene and physical distancing.

Figure 1.1. Poster regarding important prevention measures for COVID-19 (Turkish Ministry of Health)

Among the World Health Organisation's March 2020 recommendations, individuals with respiratory symptoms were encouraged to isolate themselves and maintain physical distance as infections were further spread through close proximity and particle exchanges among people (Cucinotta and Vanelli, 2020). These recommendations applied to all countries including those that did not have any active reported cases. Furthermore, in the absence of approved medical treatments, non-pharmacological measures were adopted including hand hygiene, physical distancing and mask wearing (Ameme et al., 2021) to reduce the spread of infection. However, these were not all recommended at the same time and country governments had flexibility in enforcing these. These non-pharmaceutical measures that were central in defining COVID-19 prevention are discussed in more detail in the section below.

1.4.1 Non-pharmaceutical prevention measures

The rapid spread of COVID-19 infections and the absence of population level immunity to the infection owing to no advancements at the time in developing an effective vaccine and other medical interventions, meant that non-pharmaceutical prevention measures were the only hope in reducing transmissions (Burger et al., 2022). These measures including hand washing, wearing of face masks and maintaining a physical distance enabled country governments to effectively respond to the pandemic and reopen sectors of the economy, schools and other key activities as a result of a somewhat contained transmission (Ahmed and Snyayehu, 2022; Abdullahi et al., 2020).

Despite the promise of these prevention measures, containing the disease required adherence, behavioural change and societal involvement or acceptance and willingness to adopt (Burger et al., 2022). Scholars argue that adherence to such measures at the time of pandemic is usually met by three key challenges. Firstly, adherence to the prevention measures does not necessarily benefit those who bear the brunt of religious complying to these in relation to reduced mortality risk as a direct result of the prevention measures (Lari and Al-Thani, 2022; Burger et al., 2022). In the case of COVID-19, the younger generations were expected to make the most sacrifices in terms of adherence as they were deemed as carriers of the infection, however, severe disease was unlikely for this age group. The real benefit of their sacrifices was enjoyed by the older generation and those who live with comorbidities and were at substantial risk of infection and severe disease. In this context, the younger populations were expected to adhere and keep safe from any risk of infection in order to benefit other populations at high risk which may be challenging

and an unattractive sacrifice for some (Burger et al., 2022; Albitar et al., 2020; Promislow, 2020; Oster et al., 2020; Monod et al., 2021).

Secondly, the benefits of adhering to the prevention measures are not tangible nor immediate and this is a challenge for many as the sacrifices associated with adherence are endured and maintained on a daily basis for maximum results (Chapman and Loewenstein, 2020). This usually then translates to reduced intentions to maintain any of the measures when the targeted populations are unaware of the value of their actions in reducing the transmission of the disease. The final challenge is that adherence to prevention measures at the time of a pandemic typically does not have an end date and the population runs the risk of accumulating prevention fatigue (Burger et al., 2022; Eichler and Levine, 2009; Loewenstein, 2021). As a result of this fatigue the likelihood of erroneous learning is increased as populations are more likely to misinterpret their risk as low and other perceptions that counter the urgency of adherence. Similarly, in the case of COVID-19 individuals were observed to lower their gut as it pertained to maintaining the prevention measures and this translated to reduced intentions to comply largely drawing from adherence fatigue.

Even with the recommended prevention measures the ultimate goal was ensuring compliance and according to a number of scholars this rested at the individual level. In order to understand the individual motivators and barriers to adopting these measures, a number of studies adopted the Health Belief Model (HBM) to predict preventative behaviours towards prevention measures adoption (Burger et al., 2022; Huawang et al., 2023). The HBM provides a theoretical framework for investigating health behaviours and identifying factors related to health beliefs (Duarsa et al., 2021). A study conducted in South Africa using the HBM and a mobile survey to examine correlates of reported mask-wearing found that self-efficacy, the reported prevalence of mask wearing in a similar geographic area as well as affluence were associated with mask wearing. However, older adults with higher infection and mortality risks were less likely to wear masks as part of COVID-19 prevention (Burger et al., 2022). In a similar study that sought to predict COVID-19 preventive behaviours among healthcare workers in Taipei City, it was found that the workplace safety climate had the potential to strengthen healthcare workers' health beliefs (Huang et al., 2023). These are just a few studies that focussed at individual belief models in response to the COVID-19 prevention measures. However, releasing the multifaceted nature of COVID-19 prevention, this approach was limited as it did not recognise the broader context in which individuals formulate their perceptions and beliefs of a particular health problem. In this instance, minimal attention to the communal, cultural and societal factors that inform health decision making

is limiting a comprehensive understanding of how individuals within their local contexts make health decisions as it related to COVID-19 prevention and how they engaged with the prevention messages in order to make sense of these within their own contexts.

1.4.2 The use of face masks

In the early prevention guidelines issued by the WHO in early March 2020, the use of face masks was not recommended for the general population (Guner et al., 2020). The general guidance on face masks emphasised that these could be used as part of a comprehensive prevention strategy and that on their own offered minimal protection towards infection (WHO, 2020d; Guner et al., 2020). Community level use of face masks was cautioned as holding the potential to foster false protection thereby leading to non-compliance to other prevention measures and undermining all efforts to reduce transmission and new infections (WHO, 2020d). There were also concerns about the improper use of face masks including instances where it did not fully cover both the nose and mount and other mask wearing problems, such as overly touching or moving it with unclean hands which increased the risk of virus transmission (Niesen et al., 2023).

The use of facemasks also differed in the guidelines, with medical face masks recommended for healthcare workers at the frontline of the COVID-19 response (Rahman et al., 2022; Hoernke et al., 2021). Also owing to the economic climate and the need to mobilise resources towards effective prevention measures, the use of masks by the general population was considered as placing unnecessary burden on resource allocation, this meant that country governments would incur unnecessary costs and be faced with a procurement burden further stretching the limited resources that were available at the peak of the pandemic (WHO, 2020d; OECD, 2020; Patel et al., 2017; Morales-Contreras et al., 2021). However, those with respiratory issues in the general population could in addition to other prevention measures use cloth face masks as opposed to medical masks which were recommended to be reserved for healthcare workers (Ho et al., 2020; Jain et al., 2020). As a follow-up to masks recommendations, the CDC updated its recommendation in April 2020 to specifically extend the use of “cloth masks” in public settings where social distancing could not be effectively practised (CDC, 2020). In efforts by country governments to further curb the spread of infection, mask wearing was recommended for the general population, making provisions for face cloths instead of medical masks.

Research generated during the pandemic expanded rapidly revealing the effectiveness of face masks in reducing transmission given that COVID-19 was mainly transmitted through respiratory droplets (Jefferson et al., 2020; Ali et al., 2020; Brauner et al., 2021; Li et al., 2021). The rationale

for the use of face masks was thus mainly for containing secretions and preventing transmission both from asymptomatic and symptomatic individuals (Guner et al., 2020). Since mask wearing is visually observable, it has been argued to be a powerful prevention strategy providing a sense of agency to act and adhere as others engage in the same behaviour (Burger et al., 2022).

A range of studies on mask wearing revealed that perceived susceptibility to COVID-19 infection translated to increased mask wearing behaviours (Huang et al., 2023). Another study that explored factors contributing to the wearing of face masks identified four key areas which included (1) knowledge of the disease which included awareness of the disease severity and one's risk of infection (2) environmental factors which recognised the government recommendations on the action of mask wearing as well as the availability and affordability of face masks (3) understanding the effectiveness of the recommended prevention measures, specifically face masks and (4) recollection of past experiences relating to the impact of the pandemic which motivated individuals to wear masks (He et al., 2022). A combination of these factors influenced the adoption of mask wearing behaviours. Beyond just the individual culture in which individuals make health decisions on their own, the environmental factors described in the He et al (2022) study in China point to the collective decision-making culture. This considers individual needs and attitudes as being part of a collective culture thus community culture and opinions are more likely to influence the health behaviour. In other words, while some individuals may hold different opinions about mask wearing than that of their broader societies, the promotion of masks by governments and the public may see even those who were initially against the behaviour adopting it as part of upholding societal and cultural values (He et al., 2022; Wang and Chen, 2010).

A similar study conducted in the Czech Republic exploring the role of social conformity on mask wearing behaviours revealed that individuals' decision to wear a mask was largely influenced by the proportion of those already wearing masks in a given setting or space and this differed by age and sex (Mladenovi´c et al., 2023). However, in a twist, the study observed what it describes as "free riding" behaviour in which individuals that entered a market were less likely to wear a mask when others are already masked up. This meant that these individuals deemed it unnecessary to take extra caution to also wear masks with the assumption that those already masked protected everyone.

Nonetheless, a study by Betsh et al (2020) exploring the social, cultural and behavioural measures associated with the adoption of the mask wearing measure found contradicting results, participants were more likely to comply in cases where others also wore masks in efforts of being

socially acceptable. In this study conducted with German participants to investigate the social and behavioural consequences of mandatory policies of masks wearing found that mandatory compliance to mask wearing was perceived as a social contract (Betsh et al., 2020). Those who were adherent were socially rewarded for such behaviour while punishing the non-adherent. This study further found that when mask wearing was voluntary, social stigma was highest as those adhering were assumed to be at high risk of infection (Korn et al., 2020). Mandatory compliance levelled the field for all as the expected action was carried out by all leaving little room for stigmatisation. These differences in the acceptance and willingness to adopt mask wearing behaviours are important in unpacking the processes of meaning making as it relates to masks. These studies are also limited to Western countries with minimal studies conducted to understand such behaviours and dynamics to mask wearing in African countries and more specifically in South Africa.

1.4.3 Maintaining social distancing

The effectiveness of face masks has been emphasised in conjunction with other prevention measures including maintaining social distancing. The WHO defines social distancing as community distancing which is a part of a package of prevention measures aimed at reducing the spread of contagious diseases through keeping an acceptable physical distance from others (WHO, 2020e). In its prevention guidelines, the WHO recommends physical distancing of at least 1 metre, however, country governments had the flexibility to concisely decide on relevant distancing to suit local contexts (Chai et al., 2023). The Centre for Disease Control in Africa called for two-levels of social distancing including the individual level that asserted that people maintain the physical distance, avoid social gatherings and practise non-contact greetings (CDC Africa, 2020). At the community level, the instruction included the cancelling and closure of all social gatherings to avoid any possible transmission. For effective implementation, the CDC recommended careful implementation and enforcement of both the individual and community level social distancing.

Even though physical distancing has shown to be an effective prevention measure in containing contagious diseases (Guner et al, 2020; Cheshmehzangi et al., 2023), socio-economic factors undermine the local relevance and ability of communities within their localised contexts to fully observe this measure (John, 2020; Block et al., 2020). Mbunge et al. (2020) explored the socio-economic challenges that reduce intentions and foster adherence among African societies. These include among others poor sanitation and poverty in many communities, informal dwellings that

are less conducive to social distancing due to the limited space and living arrangements as well as religious and cultural activities that are not always aligned to the practices of social distancing (Mbunge et al., 2020, Dzinamarire et al., 2020; MacIntyre and Wang, 2020; Chudik et al., 2020). A number of cultural practices including male circumcision require physical contact and conducting burials could not be limited to the recommended numbers in order to maintain social distancing as these required support and attendance by others as a way of demonstrating social unity and togetherness at a difficult time (Siweya et al., 2018; Festus et al., 2020). In essence, complete adherence to this measure was perceived as difficult within certain cultural groups and poor socio-economic status further fuelled the inability to adhere sometimes beyond the control of lay people (Mehtar et al. 2020; Gibson and Rush, 2020).

Compliance to the social distancing measure essentially is what made it effective and thus scholars have sought to understand factors associated with adherence beyond the socio-economic factors. A study conducted in South Africa in 2020 assessed social distancing adherence as well as the related determinants to adherence (Sewpal et al., 2023). In the early days of the lockdown in South Africa, over 90% of the general population practised social distancing to some extent, however, the study specifically found that about a tenth of the sample had flouted the social distancing regulations and had been in close physical contact with other people outside their home. At the time of this study, masks had recently been introduced and therefore, no evidence is available on whether this contact happened with masks on or not (Sewpal et al., 2023). Males, students, those with negative attitudes towards the lockdown were among the groups that were more likely not to observe social distancing (Baker et al., 2020; Ewig, 2020; Gupta, 2020; Walker et al., 2020; Austrian et al., 2020; Kebede et al., 2020; Zhong et al., 2020). This could not only be attributed to tendency of certain population groups like men to be non-compliant to the COVID-19 regulations by downplaying their risk of infection (Griffith et al., 2020; Baker et al., 2020), but also the nature of activities that they are engaged in that require movement and physical contact (Brookes, 2014; Dahab et al.,2020; Gibson and Rush, 2020).

1.4.4 Hand washing or hand hygiene

The World Health Organisation further recommended hand washing or hand hygiene as one of the most critical measures in the prevention of COVID-19 transmission. Given that COVID-19 was transmitted through respiratory droplets and contact, there was also a high chance of transmission through touching of the mucosa in the mouth, nose and eyes with unclean hands thereby facilitating indirect transmission (WHO, 2020e). As such hand hygiene was a critical measure in

curbing the spread of COVID-19 and other cold or flu related infections. In the initial guidelines, hand hygiene was recommended to be obligatory in many public and communal areas and further sharing the responsibility to all officials, business owners, schools, hospitals, transport industry and others to ensure the availability of well stocked hand sanitisation stations (WHO, 2020e; Wolfe et al., 2017). This was to allow users entering establishments to have access to hand washing facilities or hand sanitisers and the frequency of practising hand hygiene provided better results in terms of limiting transmissions (Jeffersen et al., 2009; Luby et al., 2005). The effectiveness of practising hand hygiene measures has been observed in a number of disease outbreaks globally including the Severe Acute Respiratory Syndrome (SARS) outbreak in 2002–2004 (Jeffersen et al., 2009). It was also observed in the influenza outbreaks where hand hygiene combined with face drastically reduced transmission (Aiello et al., 2012; Cowling et al., 2009; Ma et al., 2020).

Figure 1.2: CDC posters on handwashing

In reality, the practice of hand washing and sanitising was met with a number of socio-economic challenges that likely made compliance difficult particularly in areas where clean water and adequate sanitation facilities were not available. In sub-Saharan Africa, about 15% of the total population was reported to have access to hand washing facilities with water and soap before the COVID-19 period and in urban areas about 24% of the population have access to hand washing facilities (UNICEF, 2017; Amegah, 2020). There are also dermatological side effects of frequent handwashing including excessive skin dryness and other rashes and skin damages resulting from the use of soap and water as well alcohol-based hand sanitisers (Swain, 2021; Araghi et al., 2020;

Kissal and Vergi, 2023). Scholars have recommended rational hand hygiene practices that are sensitive to the possible effects of the harsh hand washing products and the excessive hand washing and sanitising practices (Rundle et al., 2020).

Compliance to hand washing measures was highly dependent on complex behavioural considerations which included social and cultural needs as well as environmental barriers (Drankiewicz and Dundes, 2003; Scott et al., 2007; Midzi et al., 2024). Systematic reviews have cited the availability of resources, affordability of maintaining the practice, knowledge, beliefs, attitudes and behaviours to be among the factors influencing the effective adoption of the hand hygiene practice (Heng et al., 2024; Midzi et al., 2024). Hand hygiene in clinical and public settings reported to be sub-optimal in many countries (Bezerra et al., 2020; Pittet et al., 2009) indicating the challenges with adopting this simple yet complex intervention. A range of reports drawn from different countries showed that hand hygiene adherence was estimated at around 40% (Erasmus et al., 2010) while compliance rates in health settings was at 46% (Bezerra et al., 2020). The challenges with compliance were central in understanding how social, cultural and economic factors influence the uptake of public health intervention during a pandemic.

A number of studies have explored the intersection of knowledge, attitudes and culture in practising good hand hygiene. A study conducted in a market in Zambia found that those with higher knowledge and understanding of COVID-19 and its prevention were more likely to engage in the practice (Siame et al., 2024). These findings align with a similar study conducted among taxi operators in Ethiopia that showed positive attitudes about the hand washing or had hygiene practice were associated with improved uptake of the intervention (Natnael et al., 2021) and similar studies associated disease knowledge with positive attitudes towards prevention which translated to compliance (Edet et al., 2020; Afzal et al., 2020; Yue et al., 2020; Islam et al., 2020; Banik et al., 2020). Furthermore, compliance to hand hygiene practices was associated with cultural beliefs and customs showing more compliance in cases where the practice of hand washing did not conflict with existing cultural practices (Siame et al., 2024). The alignment of the practice with deeply entrenched cultural beliefs and customs facilitated smooth adoption as this was not perceived as an additional task but a continuation of the community's beliefs and values (Davis, 2021). Considering all these factors, resource availability or quite simply put, access to hand washing facilities increased compliance among those already inclined towards the adoption of the hand washing prevention strategy (Siame et al., 2024; Zhao et al., 2018).

1.5 Contextualising science engagement with localised responses

Given how COVID-19 was spreading and its transmission through social interactions, social and community responses were essential to curbing infections. This was particularly critical for reaching marginalised populations and ensuring responses are equitable. Leveraging past experiences in community engagement alongside current COVID-19 strategies highlights the critical role that communities can play in both prevention and control (Gilmore et al., 2020). As such, it was important for country governments to evaluate existing community engagement structures and implement approaches that align with local contexts to ensure COVID-19 prevention and control measures were relevant, acceptable, and effective.

Minimal consideration of the local voices in disease prevention remains a critical area of focus in health communication research as this undermines efforts of managing diseases in cases where communities have competing priorities in terms of disease management. This was evident in many impoverished regions of Africa, high mortality rates from malaria and other endemic diseases reduced the perceived urgency of preventing and treating COVID-19 (Airhihenbuwa et al., 2020). In Liberia, for instance, communities were already facing significant health challenges, making it difficult to prioritise a new and unfamiliar threat. Public health campaigns that did not consider these pre-existing health burdens often struggled to gain traction (Airhihenbuwa et al., 2020).

These instances highlight the necessity of culturally tailored public health strategies. Global health initiatives must move beyond a uniform approach and acknowledge the diverse cultural settings in which they are implemented. Addressing structural inequities and involving local communities in designing and executing public health interventions can result in more effective and culturally sensitive solutions. The lessons drawn from Africa's experience during COVID-19 can inform future public health crises, underscoring the importance of inclusivity and context-driven approaches.

In line with the contextual considerations in disease prevention and realising the important role of culture, this study adopted the culture Centred Approach (CCA) to better understand how communities interpret the dominant COVID-19 prevention messages and how they adapt and re-construct these within their local context. The CCA originated from a background of cultural insensitivity in health communication and asserts that there is need to adopt a bottom-up approach in health communication and seeks to give voice to traditionally suppressed local voices through engagement in dialogue (Dutta, 2016). The CCA places value on the voices of the

subaltern, giving them space to participate in health communication and decision making through the use of communication tools including “dialogues, narrative construction, solidarity building and participatory communication” (Basu and Dutta 2008; Dutta, 2016). Similar to the main arguments of the CCA, this proposed study sought to unravel and give meaning to the silenced local voices in the construction of COVID-19 messages through engaging communities in understanding their local contexts and how these have influenced their re-construction of the prevention messages. This was achieved through considering the three constructs of the CCA, culture, structure and agency and how these influenced the re-construction of localised COVID-19 prevention messages that are relevant and respond to the local socio-cultural needs of the communities.

1.6 Participatory research

Understanding the contextual meanings of health and disease prevention cannot be fully achieved through quantitative studies that typically produce statistically sound results but often lacking insight into localised, subjective experiences of health, illness, perceived risks, and related behaviours. Likewise, randomised controlled trials, which focus on a narrow set of variables, cannot fully capture the complexity of how risk factors interact in everyday life. As an alternative to quantitative methods of conducting research, this study adopted a community-based participatory research approach, which is a collaborative research process that places participants at the centre of the research by acknowledging them as active participants with great knowledge of their communities and experiences (Coughlin et al., 2017; Weiner and McDonald, 2013).

The CBPR builds bridges between communities and the researcher through actively involving the participants in all aspects of the research process (Winterbauer et al., 2016). As such, the CBPR allowed for open engagements with the communities being actively involved in the interpretation and reconstruction of the COVID-19 prevention messages. Through this approach, the voices of the communities were given meaning in understanding how they localise the COVID-19 responses within their contexts.

This study further adopted a qualitative research design to explore how densely populated communities in the eThekwini Municipality constructed localised COVID-19 prevention messages through adapting and re-constructing the dominant prevention messages to appeal to their local contexts. The qualitative research design studies human behaviour, attitudes and the lived experiences of the study participants (Babbie and Mouton, 2008). Unlike the current methodologies used to construct COVID-19 prevention messages, qualitative research design is

focussed on understanding human behaviour and their experiences with the participants at the centre of the research, it proposes a bottom-up approach to conducting research in which participants do not solely become subjects within their communities and spaces but rather are empowered to be active participants.

This research design sought to understand the world or communities through the lenses of the participants themselves and appreciated their attitudes and experiences within their own contexts (Austin and Sutton, 2014; Mohajan, 2018; Berger, 2013). As such, understanding the localised interpretations and reconstruction of the dominant COVID-19 messages within local contexts required a focussed attempt to explore how communities made sense and were able to respond to these messages. This research design allowed the researcher to understand the study communities within their own contexts and how they made sense, adapted and reconstructed the prevention messages for localised responses.

This study took place in the KwaZulu-Natal province of South Africa, with a sample of densely populated communities that are categorised as rural, informal or township settings. The study was conducted in eThekwini Municipality, in three types of settings; rural, township and an informal settlement. Umlazi is a township 19kms south of Durban. The three research sites were selected for their unique location attributes, which provided useful insights on similarities and differences pertaining to how people from these three different types of communities interpret, adapt and reconstruct COVID-19 prevention messages. Over 90% of the population in these three sites speak isiZulu, therefore research was conducted with isiZulu-speaking residents in all three sites.

While a number of studies have examined the cultural meaning-making of health interventions, including COVID-19 prevention strategies, the majority have relied on conventional qualitative approaches such as interviews, surveys, or ethnographic observation (Raymond and Ward, 2021; Coombs et al., 2022; Kim et al., 2021; Falla-Aliabadi et al., 2022). These methods, while valuable, often position participants as respondents rather than co-creators of knowledge, potentially limiting the depth of insight into locally embedded interpretations and practices. Few studies have applied participatory visual methodologies, particularly photovoice, within a community-based participatory research (CBPR) framework to explore how prevention messages are understood, adapted, and reconstructed in specific socio-cultural contexts. Photovoice offers an innovative means of shifting the research dynamic by enabling participants to capture and reflect on their lived realities through images, thereby foregrounding community agency and perspective in the production of knowledge. The limited use of such participatory, visual methods in the study of

pandemic communication represents a significant methodological gap that this study seeks to address, providing richer, more nuanced understandings of local responses to dominant public health messaging.

1.7 Structure of the thesis

Chapter 1 introduces the study, highlighting background literature that lays ground for subsequent chapters. It further problematised the interpretation of COVID-19 prevention as well as the need for local reconstruction of messages for culturally meaningful messages.

Chapter 2 reviews published and grey literature under key broad themes, focusing on health communication during pandemics. It presents data on lessons learned from previous pandemics and examines how these lessons can be applied in the context of COVID-19. This chapter further discusses the dominant non-pharmaceutical prevention measures and explores how these measures are understood within socio-cultural literature.

Chapter 3 presents the theoretical framework that underpins this research. The Culture-Centred Approach is reviewed and its applicability to this specific study is established. The key constructs of the CCA (culture, structure and agency) and their applicability to this study is discussed.

Chapter 4 presents the research methodology. This study adopts a community-based participatory research approach that proposes a bottom-up approach to research by engaging communities in research that involves them. The photovoice approach that is used for data collection is discussed and its relevance in capturing the true lived experiences of the study participants is discussed. This chapter also presents the data collection phases and data analysis approach adopted.

Chapter 5 presents data that was collected during the first phase of data collection. This presents both the visual photos collected by the study participants as well as data from the focus group discussions. The chapter and visuals are organised according to key topics that emanated in research.

Chapter 6 presents data that was collected during the second phase of data collection and follows the same presentation format as Chapter 5.

Chapter 7 provides a nuanced discussion of the data presented in the previous chapters. It further draws on existing research and literature to further explore the meaning of the research findings.

Chapter 8 is the final chapter that establishes the relevance of the CCA in the context of the discussion on the interpretation and adaptation of the COVID-19 prevention messages. It further provides the scientific contribution of this study to knowledge and ends with the study's conclusion.

Chapter 2: Literature Review

2.1 Introduction

The emergence of COVID-19 affected the global community in many ways including changing the economic and social landscape. In the early years of the pandemic, no medicines or vaccines were available for the prevention of the disease and the global community was exposed to the infection with no immunity (Mohamed et al., 2020; Momtazmanesh et al., 2020; Hanaei and Rezaei, 2020; Lofti et al., 2020). In response to the growing cases of infection globally between January and March 2020, the World Health Organisation (WHO) recommended a set of non-pharmaceutical prevention guidelines to curb transmissions in the absence of pharmaceutical interventions (Imai et al., 2020; Davies et al., 2020). These included regular hand washing or sanitising, maintaining physical distancing and wearing face masks. Public health research showed the effectiveness of these interventions in reducing community transmission drawing lessons from previous pandemics and outbreaks.

The effectiveness of these interventions was established from a public health perspective, minimal to no consideration was given to the relevance and applicability of the interventions within localised contexts (Gilmore et al., 2020; Ayouni et al., 2021). These overlooked the social and cultural contexts in which individuals and communities make decisions. The predominant reliance on a top-down approach to health communication and disease management posed significant challenges (Laverack, 2017), particularly in diverse community settings where norms, beliefs, and everyday realities shaped responses to the pandemic. Lessons learned from past public health emergencies and pandemics highlight the importance of implementing contextually appropriate measures and communication including in the case of Ebola in West Africa (Gillespie et al., 2016 Chan, 2014; Marais et al., 2016; Singaravelu et al., 2018) and Severe Acute Respiratory Syndrome in Singapore (Menon and Goh, 2005). Recognising the role of cultural context in health decision making, it was critical to explore how communities receive and make meaning of the prevention measures within their localised contexts and how these translated to prevention compliance.

This chapter reviews literature on COVID-19, its recommended prevention measures and how these relate to key aspects of the community and decision-making spaces. This chapter begins with reviewing lessons learnt in the history of global pandemics in order to set the scene for studying COVID-19. It then discusses COVID-19 prevention strategies and their applicability. The next section specifically discusses the case of COVID-19 in South Africa and the national

response to the pandemic. Followed by a section that unpacks the social and cultural factors evident in the adoption of intervention in different communities. The last section discusses broadly the field of health communication and its relevance to COVID-19 communication.

2.2 Lessons learnt from previous pandemics

The COVID-19 pandemic, though unprecedented in its scale and global impact, is not the first public health crisis to challenge humanity. The outbreak of COVID-19 in 2019 follows a history of global pandemics (Ali et al., 2020; Chen et al., 2020; Wu et al., 2020). There have been a number of significant pandemics differing in magnitude (Piret and Boivin, 2022; Lindahl and Grace, 2015). These include among others smallpox, cholera, AIDS, influenza H1N1, severe acute respiratory syndrome (SARS), Ebola and tuberculosis (Rewar et al., 2015; Samal, 2014; Maurice, 2016). The HIV/AIDS pandemic which has existed for decades. In 2022, there were over 39 million people living with HIV globally and about 1.3 new infections recorded in the same year (UNAIDS, 2023). The intensity and spread of the HIV/AIDS pandemic layers ground for understanding the potential of many pandemics that have existed and those that might hit the global community in the future, In the same vein, the influenza H1N1 caused about 18000 deaths globally (Rewar et al., 2015), whereas Ebola killed over 11000 people globally (Maurice, 2016). These past experiences underscore the critical role of community engagement and the integration of cultural contexts in shaping effective prevention and response strategies.

Early HIV interventions often failed due to the exclusion of affected populations in decision-making processes (Kabir et al., 2022; Rohleder et al., 2009). Adopting a nuanced approach to developing culturally relevant health communication and interventions that engages and meaningfully considers insights from local communities within their contexts in responding to the HIV pandemic Vitsupakorn et al., 2023). This includes considering how interventions may differ across different contexts, cultural backgrounds and regions. Through the engagement of local communities, tailoring messaging to cultural norms, and including voices from vulnerable populations, significant strides were made in prevention, testing, and treatment (Garamel et al., 2022; Chen et al., 2012; Lippman et al., 2014). The success and efforts made in the HIV response provides valuable insights on contextualising the response for intervention effectiveness and adoption.

Similarly, the Ebola outbreaks in West Africa between 2014 and 2016 demonstrated the vital role of cultural understanding in disease management. The initial response in West Africa was slow but this was followed by a robust international response; however, insufficient community engagement and a failure to account for local culture and traditional beliefs initially fuelled fear

and impeded trust in health professionals and the adoption of public health measures (Kousoulis et al., 2023; Kamorudeen et al., 2020; Buseh et al., 2024; Onyekuru et al., 2023). Greater collaboration and culturally sensitive communication with rural communities in the later stages of the response proved critical in effectively managing the outbreak.

The Zika virus outbreak further reinforced the importance of local engagement (Nachtnebel and Kutalek, 2022; Gyawali et al., 2016). Efforts to prevent the spread of the mosquito-borne virus required communities to adopt preventive measures such as eliminating mosquito breeding sites and using repellents. Public health campaigns that collaborated with local governments and community leaders were effective in encouraging widespread adoption of these measures. Again, the 2003 SARS outbreak also highlighted how cultural and societal factors shape disease outcomes (Person et al., 2004; Muzzatti, 2005). In many Asian countries, community solidarity and adherence to collective measures such as mask-wearing and quarantine were instrumental in containing the virus (Mayus et al., 2023; Tang et al., 2004). These cultural behaviours, rooted in shared values and historical experiences, proved critical in mitigating the outbreak's impact. These examples underscore that while scientific evidence forms the foundation of public health recommendations, the success of these measures depends heavily on their acceptance and adoption within communities. Cultural norms, social structures, and local beliefs influence how individuals perceive and respond to health risks. COVID-19, like its predecessors, has shown that public health strategies cannot succeed in isolation from the people they aim to protect. An inclusive approach that prioritizes community engagement and respects cultural contexts is essential for designing effective prevention measures and fostering sustainable resilience in the face of pandemics.

Realising the dire impact of pandemics if they get uncontrollable, it was important for this study to understand the COVID-19 prevention and how these were interpreted and adapted with local cultural contexts. The following section explores the origins of COVID-19 and specifically focusses on the South African context, in order to understand the nuanced dynamics and intricacies inherent in dealing with a global health pandemic.

2.3 Early days of COVID-19 response in South Africa

The first case of COVID-19 in South Africa was reported on the 5th of March 2020 in KwaZulu Natal and the source of infection was traced to a recent international travel (SA government, 2020;

Moonasar et al., 2020). Subsequently, clusters of infections emerged nationwide, and this was shortly followed by widespread community transmission (Giandhari et al., 2020; Roser et al., 2020). South Africa registered the highest number of cases on the African continent between March and August 2020 (Moonasar et al., 2020; Gilbert et al., 2020). With the first case of COVID-19, the WHO pandemic declaration, the rise in global cases and the reports on cases of community transmission in South Africa, the South African President declared a National State of Disaster on 15 March 2023 (Staunton et al., 2020; Reddy et al., 2020; Government Gazette 43096, 2020). The National State of Disaster was meant to ensure the protection of the population through limiting certain rights and privileges including travel, gatherings amongst others (Staunton et al., 2020). It also allowed for the redirection of resources from non-core activities to the COVID-19 response. At this point only 61 cases had been reported in the country, however, given the country's high prevalence of communicable diseases including HIV and TB and non-communicable diseases such as diabetes, constrained health systems and limited access to water and sanitation in some communities, scholars argue that this declaration was necessary in containing the spread of the disease (Statistics South Africa, 2018; Nkengasong and Mankoula, 2020; Reddy et al., 2020; Staunton et al., 2020).

On Friday 27 March, a 21-day nationwide lockdown period was imposed (SA government, 2020). The lockdown started at a risk-adjusted level 5 which persisted for slightly over a month before transitioning to alert level 4 (Moonasar et al., 2021). Changes in the alert levels were determined by both the number of active COVID-19 cases and the capacity of the healthcare system (Kohler et al., 2023; Bhorat et al., 2020; Gustafsson 2020), particularly the availability of treatment beds. Alert level 3 was implemented on June 1, 2020, coinciding with a significant increase in COVID-19 cases, peaking around July 19, 2020 (Arndt et al., 2020; Gu et al., 2020). The decision to move to level 3 amidst rising cases was driven by the delicate balance between mitigating public health risks and reviving the economy to safeguard the livelihoods of vulnerable populations (Smith et al., 2020; Moti and Goon, 2020).

Date (2020)	Confirmed	Death	Testing rate	Interventions and update
05-Mar	1	0	-	-
10-Mar	7	0	-	Screening at ports of entry has intensified and escalated.
15-Mar	51	0	-	Self-quarantine for COVID-19 is recommended. Visas to visitors from high-risk countries (Italy, Iran, South Korea, Spain. Germany, US, UK) are cancelled and previously granted visas are hereby revoked. Gatherings of more than 100 are prohibited. Mass celebrations are canceled.
16-Mar	62	0	-	Of the 53 land ports, 35 are shut down.
18-Mar	116	0	-	A travel ban on foreign nationals from high-risk countries such as Germany, US, UK and China.
27-Mar	1170	1	-	A national lockdown is implemented. Alert level 5 is in effect from midnight 26 March to 30 April.
01-May	5951	116	0.004	A less strict lockdown is in place. Alert level 4 is in effect from 1 to 31 May. Borders will remain closed to international travel, no travel will be allowed between provinces, except for the transport of goods and exceptional circumstances.
01-Jun	34,357	705	0.013	From 1 June 2020 alert level 3 will be in effect. Restrictions on many activities, including at workplaces and socially, to address a high risk of transmission.
18-Aug	592,106	12,264	0.059	Alert level 2 is in effect.
21-Sep	661,898	15,992	0.07	Alert level 1 is in effect.

Table 2.1: Timeline of COVID-19 preventions and interventions in South Africa (Adapted from Gu et al., 2020)

Despite early interventions to contain the virus, South Africa witnessed an exponential surge in COVID-19 cases (National Department of Health, 2020; Schroder et al., 2020). This surge was believed to be attributed to poor adherence to isolation and quarantine protocols (Majam et al., 2021), along with limited compliance with non-pharmaceutical interventions (Velavan and Meyer, 2020; Schröder et al., 2021). Factors such as high levels of alcohol consumption and

socioeconomic challenges (Swart et al., 2022), including densely populated areas and inadequate access to clean water in some households (Oskom et al., 2021; Hasan and Alam, 2020; Groot and Lemanski, 2021), likely exacerbated the situation (Moonasar et al., 2021).

2.4 Social and cultural factors and COVID-19 prevention

South Africa acted swiftly in its response to COVID-19 (Swart et al., 2022). With the first case of COVID-19 confirmed in early March 2020 (Giandhari et al., 2020; National Department of Health, 2020; Statistics South Africa, 2020), days later the Minister of Health, Dr. Zwelini Mkhize announced initial prevention measures. These included among others screening of international travellers from high-risk countries and practising hand hygiene practices to curb the spread of the virus (South African government, 2020). In a few weeks, the level 5 lockdown and associated restrictions were implemented (South African government 2020), a further range of precaution measures adapted from the WHO recommended prevention guidelines were adopted including hand washing or sanitising, social distancing and mask wearing, quarantining and isolating (Moonasaret al., 2021; Burger et al., 2022).

With these measures recommended from a public health perspective, the social and cultural responsiveness of the population to these interventions have not been extensively explored. A range of studies focussed on the economic, social and psychological factors that influenced individuals' behaviour to enact and effectively adopt the prescribed prevention measures (Swart et al., 2022; Kim and Kim 2020; Rosha et al., 2021; Plohl et al., 2020). Effective health communication and experience from previous pandemics in the African context have shown the importance of culture and contextualisation of health interventions in order to achieve the desired outcomes (Varani et al., 2020; Mashapu et al., 2021; Kaplan et al., 2015). These lessons learnt from previous pandemics make it important to unpack the role of culture in the response to COVID-19 and how people received and interpreted the dominant prevention messages within localised contexts.

From a medical perspective the prescribed prevention measures were effective in limiting the spread of the disease given the biological make-up of the virus and its transmission (Ellwanger et al., 2020; Ayouni et al., 2021). However, the relevance and applicability of the prevention measures within marginalised social and cultural contexts remained a highly debated topic considering the inability of certain populations to fully enact these interventions within "confined and congested spaces" (Mbunge et al., no date; Massinga et al., 2020; Africa CDC, 2020). The prevention measures proved to be effective in affluent communities where the social, economic

and cultural landscape was conducive for such and less practical in informal settlements and other poor communities (Chudik et al., 2020).

Furthermore, the COVID-19 pandemic changed the cultural landscape in many communities, denting the social and cultural fabric that defined communities (Silberman, 2021; Angelo et al., 2021). In a bid to comply with the prescribed prevention measures, communities faced key challenges relating to altering their social norms, social and cultural identity and practices. For example, the practice of social distancing and self-isolation challenged the core of most African cultures that celebrate and are founded on values of social unity and support (Senghore et al., 2020). Though the COVID-19 prevention measures were important in the absence of medical or pharmaceutical measures such as vaccines, cultural beliefs and practices were key in defining community obligations to comply. Compliance was largely influenced by the social and cultural values and simple ability to adhere as well as conducive environments for doing so, which was largely not the case in many poor communities (Massinga et al., 2020; Mbunge et al., no date).

Considering the diversity of religion and cultural values and spaces in the African context combined with social interactions, COVID-19 undoubtedly affected religious and cultural activities in many communities in various ways. Religious and cultural gatherings were cancelled during the strict lockdown levels 5 and 4 and restrictions on gatherings were imposed as part of subsequent lockdown levels regulations. Despite the cancellations and restrictions, some families and communities ignored the prevention measures including the social distancing guidelines, particularly during burials, cultural events and rituals (Siweya et al., 2018; Festus et al., 2020). This was in line with the resistance towards deviating from cultural practices and the fear of repercussions associated with not fully and correctly conducting their traditions (Napier et al., 2014; Shaikh and Hatcher, 2005). As such the cultural response to the prevention measures and the COVID-19 pandemic differed in many communities and culture was a key player in the playout of compliance or lack thereof to the prevention guidelines with local communities/contexts.

2.4.1 Cultural responses to COVID-19 prevention

Even though the COVID-19 pandemic was a biological infection caused by a specific virus and prevention interventions recommended from a public health perspective, the pandemic had cultural implications and so did its prevention (Bayeh et al., 2021; Kahissay et al., 2017; Workneh et al., 2018; Bruns et al., 2020). The dominant COVID-19 communication focussed largely on individual risk factors and prevention thereby isolating individuals from the broader community risks exacerbated by existing and deeply entrenched inequalities (Airhihenbuwa et al., 2020). This

downplayed the centrality of culture in crafting and driving an effective community-engaged health communication aimed at reducing community risk.

Bruns et al (2020) argues for a broader consideration of cultural complexities on health, recognising the critical role of culture on facilitating and enabling an effective public health response and the risk thereof when it is not factored into health responses and communication. In cases of new diseases and pandemics, cultural perspectives remain central in guiding the health response, appreciating how the specific symptoms of the disease are understood in a community, and how individuals and communities make sense of the prevention and treatment programmes provided and how these align with their traditions or cultural beliefs and practices (Latif, 2020; Kaihlanen et al., 2019).

The field of cross-cultural studies have made advances in research supporting the uniqueness of the different cultures in their perception and understanding of health, diseases and what sickness entails for them considering their beliefs and cultural contexts (Kahissay et al., 2017; Workneh et al., 2018). As such, an effective public health response should realise the complex role of culture in health decisions and responses by assessing the cultural beliefs and assumptions of a particular community to align the response to their beliefs (Napier et al., 2014). In order to achieve positive health outcomes, the responses or interventions should be developed with local communities to ensure that they remain culturally relevant for the communities and encourage intervention acceptance, education and participation (Shaikh and Hatcher, 2005). Arguably, communities are more likely to accept interventions that do not clash nor undermine their core cultural values.

Evidently, culture played a big role during the COVID-19 pandemic, particularly as it related to infection exposure, screening and prevention (Lee et al., 2021; Gilmore et al., 2020). For example, the cultural methods of greeting which typically include hand shaking, hugging, kissing, nose-to-nose greetings were argued to increase exposure to COVID-19 (Bruns et al., 2020; Birhanu et al., 2020; Hailu et al., 2021). Key COVID-19 prevention measures cautioned individuals against these practices, pointing out social distancing and practising non-physical contact greetings as well as hand washing. Appealing to communities to alter their traditional methods of greeting was argued to have challenged the basic principles of certain cultural groups. While promoting non-physical greetings and other practices in line with the COVID-19 prevention measures was critical for reducing disease transmission, it was seemingly difficult to encourage communities to adopt these against their cultural will and beliefs (Tesfaw et al., 2021; Raymond and Ward, 2021). As

such, it is important to consider the role of culture in health communication in order to avoid "correlating disease with questionable cultural causations" (Bruns et al., 2020). This may unintendedly lead to assigning disease blame to particular population groups with high infection rates and even stigmatising other groups (Sovran, 2013).

2.4.2 Cultural values: Individualism vs collectivism

Cultural values reflect common priorities that can shape attitudes and beliefs about various topics such as understanding diseases and their exposures, prevention and treatment as well as balancing social and economic needs with health and wellbeing (Idang, 2015). In this regard, a large body of research, particularly on the dichotomy between individualism and collectivism, explores the complexity of cultural values in the response to health challenges and communication quite broadly (Bayeh et al., 2021; Mehta et al., 2023; Harunavamwe and Palmer, 2020). As the terms suggest, individualism assumes that individuals are independent of others and communities whereas collectivism supposes that individuals belong to cultural or other groups that bind them together and obligate their behaviours as a whole instead of individually (Hofstede, 1980; Her and Joo, 2018; Darwish and Huber, 2003). Individualistic cultures uphold the view of "self" and decisions are all dependent on the individual separating the self from the broader community and also focusses largely on identifying and expressing differences among others (Santos et al., 2017; Zha et al., 2006). On the contrary, collectivistic cultures uphold shared responsibilities, agreements, and expectations tied to social roles. Overall, the collectivistic culture prioritises group obligations and needs over those of individuals (Schwartz, 1990; Triandis, 2004; Her and Joo, 2018).

In line with the concepts of individualism and collectivism, scholars have also explored the concept of cultural tightness-looseness (Gelfand et al., 2007; Deckert and Schomaker, 2022). This concept refers to the "strength of social norms and degree of sanctioning within societies" (Gelfand et al., 2007; Hofstede, 2003; House et al., 2004). Similar to the collectivistic cultures, members of a community with a shared culture uphold group social norms in tight cultures, whereas in loose cultures social norms are either not clearly defined or deviations from the norms are accepted (Triandis, 1989; Deckert and Schomaker, 2022). In tight cultures, social and cultural norms are well known and stringently enforced, while in loose cultures there is flexibility in defining behaviours that are norms and high tolerance for deviations from the norms. In line with these characteristics Gelfand (2012: 420) differentiates between the two cultures and defines tight societies or cultures as "societies that have strong norms and a low tolerance for deviant

behaviour" and loose societies and cultures as "societies that have weak norms and a high tolerance for deviant behaviour". These cultural values play a significant role in understanding the values upheld by communities or societies and how these influence their response to health, economy and other key issues affecting communities.

Both dichotomies, individualism-collectivism and tightness-looseness cultures have been studied in the context of COVID-19 to unpack and reflect on their relevance and applicability to community responses to the pandemic and the related prevention interventions. As established in the cultural psychology literature, individualistic cultural contexts prioritise independence and the freedom and satisfaction of attaining personal goals. Conversely, collective cultures place the group or community at the centre with group ties and responsibilities superseding the individual needs (Triandis et al., 1986; Markus and Kitayama, 1991; Bayeh et al., 2021). In the context of the COVID-19 pandemic and within individualistic societies, the implementation and subsequent enforcement of the prevention guidelines should consider individual freedom and rights making compliance voluntarily (Ilievski, 2015; Hofstede, 2011; Eaton and Louw, 2000). In such cultures, governments would be reluctant to impose the prevention measures if they undermine the individuals' will and freedoms which would have led to delayed responses to the pandemic (Bayeh et al., 2021). As such, individuals in such societies could be less accustomed to complying to health regulations such as wearing masks to prevent disease transmission. In these societies, members prioritise themselves with minimal consideration of the broader societal well-being resulting from their actions or inaction thereof.

In collectivistic cultures and in the case of many African countries, COVID-19 management deviated from how societies have been accustomed to behave and take care of each other during a time of medical illness (Mashaphu et al., 2021). In response to the increasing COVID-19 cases nationally, the South African government enforced the regulations of the Disaster Management Act 57 of 2020 which prohibited visiting patients in hospitals, and this prevented physical contact between families and those hospitalised due to COVID-19 (Mashaphu et al., 2021). Even those that were not hospitalised were still subjected to mandated quarantine or self-isolation which also meant no physical contact with family and loved ones (Cimolai, 2020). While these measures were critical for reducing transmission, they challenged the values, cultural and societal norms of caring for each other and further undermined the space for performing cultural rituals for the sick and those who subsequently died in hospitals from COVID-19 (Mapaya and Mugovhani, 2014; Mashaphu et al., 2021).

A range of practices such as visiting the sick, praying for them and performing rituals for the sick and those that have passed are common in many African societies and these have meaning and define societal values. The inability to perform these rituals as a result of the lockdown and restrictions imposed during this time was believed to result in complex bereavement issues (Zhai and Du, 2020; Bertuccio and Runion, 2020; Pearce et al., 2021; Burrell and Selman, 2020). Cultural practices of slaughtering animals for rituals and Christian rituals are deeply entrenched in societies and are believed to provide healing for the sick and are emotionally uplifting for the bereaved (Rooney and Staff, 2000). Families and loved ones were not afforded the opportunity to mourn their loss in a culturally sensitive manner as a result of the restrictions imposed during the lockdowns (Disaster Management Act, 2020; Mashaphu et al., 2021). As such, there were frictions between what was recommended from a public health perspective and what was acceptable within communities that upheld certain cultural values including shared norms and beliefs. This highlighted the importance of recognising the importance of culture in health messages, realising that what works for the global community (social/physical distancing) may be different across cultures depending on their cultural values and whether they uphold individualistic or collectivistic cultural values (Airhihenbuwa et al., 2020). In this case what is referred to as standard and effective measures to COVID-19 prevention in an individualistic culture represented isolation and deviation from the norm for collectivistic cultures.

Similarly, social distancing was emphasised as one of the key prevention measures to halt the spread of COVID-19 as recommended by the WHO and adopted by country governments (WHO, 2020a; NDoH, 2020). In sub-Saharan Africa where collective cultures are observed, networks of social support are important for patients' care and recovery and this includes support from healthcare providers and relatives or friends emphasising the interplay between culture and context in caring for patients (Kwame and Petrucka, 2020; Sadigh et al., 2016; Olwit et al., 2015). The practices of social distancing and self-isolation or quarantine were acceptable within individualistic societies, however, in collectivistic societies these create social isolation, loneliness which may all lead to stigmatisation (Renzaho, 2020; Eaton and Louw, 2000; Ndulo, 2011). In certain regions, anecdotal reports suggest that individuals who have recuperated from COVID-19 or have been released from government-mandated quarantine or hospitals encountered communal hostility. They were often driven away from their residences by neighbours, stemming from a lack of understanding about the disease or simply fear (The Independent, 2020; Johnston et al., 2023). Table 2.2 shows the cultural beliefs that were largely accepted with many South African cultures that were challenged as a result of the COVID-19 regulations. In essence, this

table drives an important message on aligning public health responses to cultural settings. The COVID-19 prevention interventions had to carefully consider cultural contexts and diversity, realising that cultural complexities influence individuals' and communities' responses and the adoption of the measures (Rehanzo, 2020).

Cultural beliefs	COVID-19 regulations
Group activities	Social distance
Seeking closeness during illness	Self-isolation
Shaking hands	No touching
Unity in numbers	Staying away is caring
Washing of mortal remains	No contact with mortal remains

Table 2.2 Contrast between common social practices and COVID-19 regulations (Mashaphu et al., 2021)

2.4.3 Culturally appropriate language use in health communication

A number of studies highlight the role of linguistically and culturally appropriate health messaging in reaching local communities and maximising chances of message understanding and adoption (Ortega et al., 2020; Aguilera, 2020; Della, 2020). These studies emphasise the need for tailoring the language used in health messaging to effectively reach all communities. Delays, inaccuracies and poor translation of messages to local communities have been seen to exacerbate health disparities by increasing the risk of transmission among populations that do not have access to information and healthcare services. In other words, when the language used in health messaging does not consider the local and cultural contexts of communities and the targeted populations, there is substantial risk of misunderstanding which will likely undermine efforts to control or prevent diseases. In the case of COVID-19, access to information in languages that were culturally relevant was among the challenges that led to limited understanding of the prevention measures and the susceptibility to infection thereof (Civico, 2021; Garrigou-Kempton in Blumczynski and Wilson, 2023).

Similar trends on language use during pandemics was observed during the early years of the AIDS epidemic, some communities experienced a disproportionate disease burden, partly due to misinformation and gaps in knowledge about transmission (Salmon et al., 1996). Likewise, COVID-19 has also been prone to misinformation which can be argued to partly stem from lack of language clarity and understanding within local communities. As established in this study, the

use of language that is not culturally relevant affected the manner in which people understood these messages. For example, the data presentation chapters shared findings of instances where participants believed that when one is wearing a mask then it was not necessary for the next person to wear a mask as the protection will be shared. This assumes that when one is wearing a mask the possible risk of disease transmission is very low.

This observed lack of clarity in language used in COVID-19 communication and more specifically in communicating COVID-19 prevention messaging led to misinterpretation of the measures in some instances (Purohit and Mehta, 2020; Seale et al. 2022). However, broader than this challenge, in the context of culturally appropriate communication, language usage carries important nuances that shape the interpretation of public health messages (Ramafikeng and Marshall, 2023; Nissen and Meuter, 2023). The inability of cultural groups to fully adhere to specific prevention measures has often been categorised under the broad label of "non-compliance". This classification persists despite efforts by cultural members with local communities to contextualise and assign local meanings to the prevention measures. From a scientific standpoint, non-compliance is typically defined in a rigid and standardised manner (Kleinsinger, 2003; Chakrabarti, 2014). However, when viewed through the lens of culturally relevant language use, these deviations may be better understood as cultural or contextual adaptations of public health guidelines rather than outright non-compliance.

2.5 Health communication in the context of COVID-19

The field of health communication has been shaped by scholars from various academic disciplines, including sociology, psychology, public health, and medicine (Beck et al., 2004; Paek et al., 2010; Kim et al., 2010; Thompson et al., 2007). Most of this research has inspired communication researchers to meticulously explore the role of communication in enhancing health, building healthcare relationships, and influencing other crucial health-related processes and practices (Kreps, 2015; Schulz and Hartung, 2010). Health communication as defined by many scholars is an important practical field of research that investigates the impact of both human and mediated communication on healthcare delivery and health promotion (Kreps, 2012; Kreps and Maibach, 2008; Ishikawa and Kiuchi, 2010; Hamel, 2013).

Health communication scholarship is largely centred on two focus areas, firstly, healthcare focussed communication research which generally focusses on how communication affects the quality, precision, and efficacy of medical diagnoses, treatment decisions, follow-up care, support services, and end-of-life care. Secondly, it is centred on health promotion focussed

communication research which typically focusses on designing and evaluating health education and promotion campaigns. This involves analysing message design, communication channels, and various strategies and practices used in these campaigns (Kreps, 2015). Without much differentiation this study explores the effectiveness of both COVID-19 communication in order to unpack the contribution and value of both an effective health communication and health promotion strategy as adopted by governments in implementing and enforcing the prevention guidelines during the pandemic lockdown periods.

In cases of public health emergencies such as the COVID-19 pandemic, the relevance of health communication is mainly on saving lives and reducing transmissions. Appreciating its relevance during periods of pandemics and “unexpected” health emergencies, health communication tends to be problem-based and focussed largely on identifying and suggesting communication strategies for disease management and prevention as well as health promotion (Kreps, 2015; Malikhao, 2020; Zhao, 2020). Although some research in health communication is not applied, meaning some scholars focus on theory based or descriptive research (without providing practical examples or suggestions on the applicability of their research to real life settings), in recent years there has been a shift to more applied and problem-solution based research (Frey and Wolf, 2009; Kreps and Bonaguro, 2009). In other words, most health communication research provides practical recommendations, interventions and strategies that can be implemented in real world situations.

In this regard, a number of health communication studies conducted globally offer key strategies to be adopted in solving health issues. To mention a few, health communication scholars have been involved in research aimed at enhancing good communication between healthcare providers and their patients (Allen et al., 2001; Cegala et al., 2008; Edwards and Elwyn, 2001; Leford et al., 2010). There have also been practical recommendations from research conducted on improving health social support (Wright and Frey, 2008; Oatzel et al., 2007) and more general research on planning and carrying out health communication campaigns (Gagne, 2008; Cho and Salmon, 2007). These studies highlight the practicality of health communication research in providing practical guidelines on effectively implementing communication strategies with high impact. However, given the problem-based and problem-solving approach of the health communication scholarship, the COVID-19 pandemic as a new disease required sufficient time for effective communication strategies to be developed and reach the intended communities or audiences right at the peak of infections globally.

Scholars consider communication to be the key social process that shapes how people understand health and well-being, how health care services are provided, and how personal and public health is promoted. This central role stems from the fundamental function of communication in generating, collecting, and disseminating health information (Brashers et al., 2002; Kreps, 2011; Kreps, 2012), which is crucial for guiding health-enhancing and preserving behaviours, treatments, and decisions in both personal and professional health care contexts. Notwithstanding, the importance of health communication, some scholars have argued for its practical applicability in the case of COVID-19 with prevention interventions recommended from a public health perspective and promoted within local communities with different cultural beliefs and values (Airhihenbuwa et al., 2020). Arguably, the application of health communication should be centred within contextual settings to increase its relevance and acceptability within local contexts with varying cultures and social norms.

Added to the cultural shortfalls of health communication during the COVID-19 pandemic, Nkamunye and Obiechina (2017) and Achalu (2008) more broadly highlight key challenges to effective health communication and these can also be applied in the case of COVID-19. Limited literature and knowledge about the disease may make it difficult for people to comprehend the messages and take positive preventive measures. Similarly, in the early days of COVID-19, there was limited knowledge and literature available about the disease (Tao et al., 2023) which meant low health literacy among ordinary citizens thereby affecting their ability to understand and make health decisions (Nutbeam and Lloyd, 2021). Furthermore, limited literature and research also leads to the inability of governments and health officials to effectively work on communication strategies that respond to the needs of communities (Obiechana, 2017). Sketchy research and information on the disease also allows individuals to draw health meanings and conclusions about the pandemic which can undermine prevention efforts if not based on scientific evidence. Achalu (2008) also lists other common barriers to health communication which include: (1) message disseminated from untrusted sources and lack of receivers for the messages; (2) vague messages that are also disseminated through inappropriate or untrusted communication platforms; and (3) lack of response to people concerns or questions on the messages as well as possible distortion of the messages.

The COVID-19 prevention strategies implemented in South Africa, as in many countries, were not only public health recommendations but were reinforced through health mandates and, in some cases, legally enforceable regulations (Ameme et al., 2021; Qin et al., 2021). Mask wearing, restrictions on public gatherings, limitations on movement, and hand sanitising/hygiene were

framed as urgent public health imperatives. These mandates shaped the communicative environment in which prevention messages were received, often reducing the scope for negotiation or adaptation at the community level. In such contexts, the interpretation of prevention messages is inseparable from the awareness that compliance was legally required, which inevitably shifts the dynamics of message reception and local meaning-making.

From the perspective of cultural participatory models such as the Culture-Centred Approach (CCA), these legislated behaviours presented a conceptual challenge. The CCA emphasises co-creation of health communication, grounded in community voice, cultural context, and structural realities (Wallerstein et al., 2019). However, during the pandemic, the urgency of infection control and the perceived need for rapid, standardised action often prioritised compliance over comprehension. This raises critical questions about the applicability of participatory paradigms in public health emergencies: Can, and should, participatory processes be maintained when time-sensitive threats demand swift behavioural adherence? What is lost when message uptake is driven by enforcement rather than dialogue, and how might participatory frameworks adapt to account for such high-stakes contexts? This study situates these questions at the intersection of mandated compliance and culturally grounded meaning-making, contributing to broader debates about the role of participation in crisis communication.

2.5.1 Risk communication or communication during a crisis

Risk communication and community engagement is an important part of health responses during health crises (Dickmann et al., 2016; WHO, 2018). In response to the COVID-19 pandemic and in efforts to guide communication, the WHO published technical guidance on risk communication and community engagement (RCCE) in January 2020 (WHO, 2020f). In its guidance it recommended a range of RCCE strategies for countries preparing national COVID-19 responses (Hu and Qiu, 2020) with the assumption that effective RCCE would translate to reduced risk of infection and the adoption of prevention measures. RCCE scholarship suggests that individuals' responses to risks that threaten their health and safety trigger a wide range of emotional, cognitive, and behavioural reactions in people (Fischhoff, 2005; Gilk, 2007). As such, considering individual beliefs and risk perceptions is critical in effective risk communication realising that exposure to increased risk and fear derails individuals' ability to process information and this is something important to consider in the design and delivery of risk communication (Glik, 2007).

Since health outbreaks and pandemics are characterised by uncertainty and unpredictability, developing effective and timely risk communication remains critical (Kenis et al., 2019; Campbell-

lendrum et al., 2015). Effective risk communication generally involves presenting and sharing all relevant risk messages openly and promptly with participants in the communication process. The goal is to bridge the knowledge gap between those who originate the information and those who receive it, and to proactively adjust public behaviour to effectively manage the risk (Frewer, 2004; Arvai and Rivers, 2014). For example, during the initial phase of the SARS outbreak in China, the perceived absence of transparent information undermined the effectiveness of risk communication and expanded the scope of the impact (Sin, 2016). Timeliness is crucial in controlling outbreaks; prompt access to accurate information and immediate action can prevent the need for emergency measures. Conversely, the early stages of the COVID-19 outbreak were marked by delayed information disclosure and decision-making, typically reflecting ineffective risk communication associated with COVID-19 (Kavanagh, 2020; Zhang et al., 2020).

Table 1. The message-centered approach and its best practices of risk communication.

Best Practices for Risk Communication	Description
Infuse risk communication into policy decisions	Policies about risk may evolve and be communicated in a variety of ways. Decision making needs to be based on constant risk communication.
Treat risk communication as a process	Effective risk communication is a dynamic, interactive, and adaptive process.
Account for the uncertainty inherent in risk	Using equivocal messages to convey risk information.
Design risk messages to be culturally sensitive	Risk communication should fit specific features of the audience. These features include gender, education, age, and culture.
Acknowledge diverse levels of risk tolerance	People have widely varying capacities to process risk messages, including scientific and technical understandings of risk.
Involve the public in dialogue about risk	Risk communication dialogues should involve collaborations between the government, industry, and citizens that are open, inclusive, and deliberative.
Present risk messages with honesty	Risk communication should be an open, honest, and frank process, instead of essentially manipulative.
Meet risk perception needs by remaining open and accessible to the public	Honest communication is accessible and open as well, which means that the public can receive messages by various channels.
Collaborate and coordinate about risk with credible information sources	Coordination of risk communication strategies requires information sharing and establishing networks of working relationships between groups and agencies.

Source: This table is a content summary from Sellnow et al. [8] (pp. 19–29).

Table 2.3 Message centred approach and best practices of risk communication (Zhang et al., 2020)

During the peak of infection and COVID-19 related deaths, health communication on the response to the pandemic was largely centred on individual behaviour choices, suggesting that individuals are in charge of their own prevention and health decisions (Airhihenbuwa et al., 2020). This is arguably the shortfall of risk communication as it tends to focus on individual risk thereby isolating individuals from the communities and contextual settings they exist in and pays minimal attention to community engagement. In this context, community engagement refers to the creation of dialogic spaces and opportunities for ordinary community members to input in defining the health problem and share insights on possible solutions to their health problems (Airhihenbuwa, 2007).

Intentionally and effectively engaging communities in this process allows them to consider their cultural values and propose interventions and communication strategies that best align with their cultural beliefs and acknowledges their varying contexts.

While it is important to recognise individual risk, effective prevention communication is best achieved in collective settings, where communities craft messages that respond to their local and contextual health needs in relation to the health problem. In the same light, vulnerability to the COVID-19 pandemic cannot solely be attributed to individual risks; instead, it is shaped by broader social and structural determinants of health that lead to disparities in the communities where vulnerable groups live, work, engage in leisure, worship, and learn (Palmer et al., 2019; Williams et al., 2019; Brown et al., 2019). Developing communication strategies that resonate with the communities most affected by an issue can benefit from insights gained from the multilevel approaches used in HIV communication. These strategies consider structural factors such as institutional policies, economic conditions, gender, and spirituality, all anchored in cultural contexts (Airhihenbuwa et al., 2020).

In the context of COVID-19, the dominant top-down approach to communication was largely challenged and required a shift towards community engagement which was critical for creating “local and context-specific” responses to disease prevention (Marston et al., 2020; Gilmore et al., 2020). Adopting a bottom-up approach allows communities to actively participate in “decision-making processes of planning, design, governance and delivery of services aimed at improving population health and reducing health inequalities” (Barker et al., 2020). As the COVID-19 pandemic was viewed as a social phenomenon, it was critical to actively incorporate and adapt local perspectives, voices, and concerns into health crisis response efforts. Additionally, measures recommended by the WHO to prevent and control COVID-19, including social distancing, hand hygiene practice and the use of face masks, require an understanding of the unique social dynamics within communities. Leveraging these dynamics effectively can help minimise the epidemic's impact. These measures heavily depend on community engagement, which is vital for building trust and slowing the spread of the disease while drug and vaccine development progresses (Gilmore et al., 2020).

Dominant health communication during the COVID-19 pandemic largely relied on a top-down model, where international health agencies and national governments issued prevention directives that were then disseminated to communities through mass media and official channels. While this approach ensured rapid and wide coverage, it often assumed that messages would be

understood and applied uniformly, regardless of diverse cultural, socio-economic, and structural realities. Such messaging rarely engaged with the everyday constraints and lived experiences that shape the feasibility and meaning of recommended behaviours. As a result, there was limited space for communities to question, adapt, or co-create prevention strategies that aligned with their realities. This limitation underscores the challenge of applying one-size-fits-all communication during crises and points to the need for alternatives that are responsive to context and grounded in local knowledge systems.

Culturally grounded and participatory approaches, such as the Culture-Centred Approach (CCA), offer a pathway for bridging this gap by positioning communities as co-authors of health communication rather than passive recipients. By integrating local voices, cultural norms, and community agency into the design and dissemination of messages, these approaches can enhance both the relevance and sustainability of public health strategies. However, during the pandemic, the urgency of infection control and the prevalence of legislated prevention measures often sidelined such participatory processes.

2.5.2 Navigating misinformation during a pandemic or health crises

From a scientific perspective, it takes weeks or even months to gather scientific data to diagnose, prevent and treat a new infectious disease (van Seventer and Hochberg, 2017). This includes understanding the different modes of transmission, the degree of contagiousness, the incubation period, the ratio of severe to mild or asymptomatic cases, and the case fatality rate. However, in the absence of this validated information, misinformation tends to take hold and spread. This has been observed in previous pandemics and public health crises including the outbreak of the Zika virus in the Americas (Chan et al., 2018; Stefanidis et al., 2017), Ebola in West Africa (Richardson et al., 2019) and other similar cases. Likewise, a similar trend was observed when COVID-19 was emerging as a public health crisis, there wasn't information about the causes of the disease and this led to the escalation of misinformation (Mercedes et al., 2022; Barua et al., 2020; Gabarron et al., 2021; Kruger et al., 2024).

Vraga and Bode (2020) define misinformation as “information that is deemed incorrect based on the best available evidence at the time it is shared”. An important component is the falseness of the information when evaluated against available information at the time. As observed in previous disease outbreaks, minimal scientific evidence tends to expose the disease to misinformation thereby challenging health communication efforts. Similar to COVID-19, in its early days, there was misinformation circulating on social media platforms including beliefs that COVID-19 was

caused by the radiation from 5G, that COVID-19 resembled the biblical mark of a beast (Nyika et al., 2021). Further misinformation was based on broad topics such as distrust in governments and authorities, rumours about the origins of the virus, how its transmitted as well as the prevention and treatment options (Brennen, Simon, Howard, & Nielsen, 2020).

While some misinformation is harmless, the "illusory truth effect" was largely becoming evident. This occurs when information is reiterated multiple times, even if false, the repetition leads to people perceiving it as truthful (Fazio et al, 2015; Lewandowsky et al., 2012). This illustrates what was observed in many communities as people began to respond to COVID-19 based on false information. There were general myths about alcohol consumption and preventing COVID-19 as seen in the WHO myth buster poster (see figure 2.3).

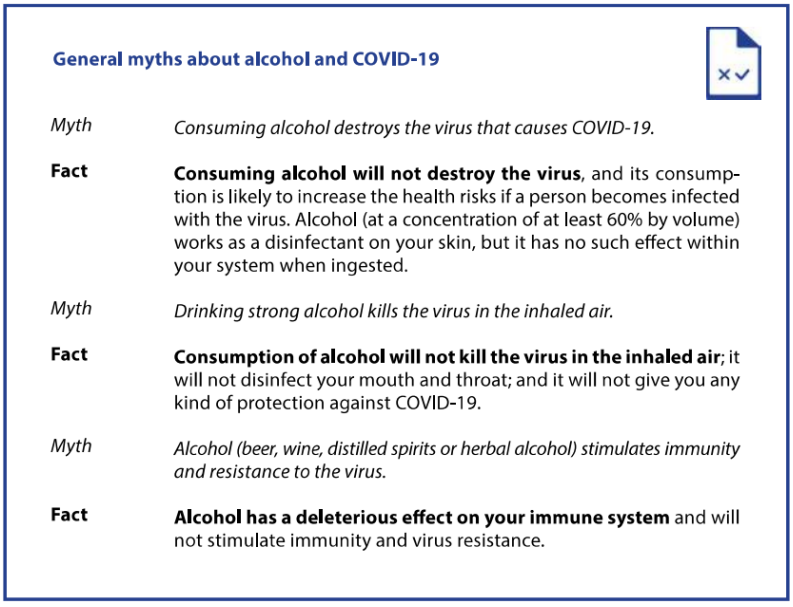


Figure 2.3 Myths about alcohol and COVID-19 (WHO, 2020)

The context of COVID-19 posed challenges to effective health communication as there was growing misinformation in various communication platforms, yet there was limited scientific evidence to burst the myths. In the midst of these challenges, WHO recommended a set of prevention measures to be adopted by country governments and these were based on the available scientific evidence at the time which did not always mean that the misconceptions about the disease were adequately addressed. In addition to the minimal consideration of local contexts in the adoption of the COVID-19 prevention measures, the localised misinformation was also not adequately addressed which arguably posed more challenges to the prevention response within

communities. While this study does not specifically explore misinformation, it however acknowledges its role in shaping how people understood and interpreted COVID-19 prevention within local contexts.

2.6 Conclusion

The literature reviewed in this chapter has highlighted that COVID-19 response is multifaceted, unpacking the importance of public health responses that consider local and cultural contexts of the intended users and audiences. Cultural factors play a significant role in public health responses including COVID-19 as individuals and communities hold varying attitudes towards health messages and government interventions and these all influence the adoption of preventive behaviours. Furthermore, socioeconomic disparities were evident in many communities exacerbating non-compliance as marginalised communities were not empowered and unable to adopt the prevention measures given their contexts. Undoubtedly, the COVID-19 pandemic has underscored the complexities of managing global pandemics, revealing the complex interplay between health communication, cultural norms, and socioeconomic factors. Effective prevention and control of such pandemics require not only scientific responses but also contextualised strategies to enhance public health messaging and improve compliance.

Chapter 3: Theoretical framework

3.1 Introduction

This study proposes a shift from the dominant health communication theories that are largely formulated from a biomedical perspective and have come to define health promotion and communication in recent times including COVID-19 communication. At the core of these dominant approaches is the definition of scope and objective of health messaging through a biomedical model that emerges that pays little attention to the contextual settings where health interventions and messages are adopted and enacted (Dutta-Bergman, 2005). Furthermore, these approaches draw largely from an individualistic perspective that assumes that individuals have the sole responsibility to make informed health decisions thereby painting marginalised individuals and communities as lacking agency to make independent health decisions that would lead to positive health outcomes (Jamil and Dutta, 2011). These dominant theories adopt a top-down approach to health communication, necessitating individuals regardless of their social, economic and cultural settings to adopt the recommended interventions (Airhihenbuwa, 1995; Dutta-Bergman, 2005).

As an alternative to these communication approaches, this study adopts the Culture Centred Approach (CCA) as a key underlying theoretical approach. Communication on Covid-19 has been largely formulated from a biomedical and individualistic perspective with minimal consideration of the different socio-cultural contexts that either facilitate or hinder the adoption of these prevention messages. This traditional communication approach places emphasis for decision making on the individual thereby downplaying the role of collective cultures that assume the importance of others and socio-cultural contexts in the adoption of health interventions and behavioural change (Ranzeho, 2020). As such, the CCA offers an inclusive approach to Covid-19 communication that adopts a bottom-up approach and considers the social and cultural settings in health communication. The CCA builds on the principles of the community-based participatory research (as will be discussed in chapter 4) and asserts that individuals are located within spaces requiring collective decision making and collective responsibility for sharing health issues (Dutta 2008). It further asserts that individuals exist within cultural contexts which influence their decision-making powers thereby providing alternatives to the dominant formulation of the COVID-19 prevention messages that was highly individualistic.

3.2 The Culture Centred Approach: An overview

Dominant approaches to health communication have traditionally adopted a linear model to understanding health issues without incorporating the voices of the subalterns in programme designs and research generally (Jamil and Dutta, 2011). These linear models tend to prescribe a singular channel to knowledge production, information dissemination and the transmission of beliefs from the researchers or health officials to the ordinary individuals. They further disregard the importance of cultural values and beliefs in health decision making and how individuals' health choices are shaped to a large extent by culture (Dutta, 2008; Dutta et al., 2012). As such dominant approaches fail to explain the individual behaviours and their willingness to adopt health interventions from a cultural perspective often giving more insight into individuals ability to adopt health interventions. The inconsideration of cultural voices in health communication tend to treat communities as subjective participants in health discussions affecting them (Dutta, 2008; Dutta-Bergman, 2004a and 2004b) through adopting a top-down approach that ignores the voices of the subalterns in health decisions or health programme designs which limits community participation in health discussions and treating them as recipients of health interventions as opposed to co-creators of the interventions.

As a theoretical approach, the CCA advances the idea of contextual meaning in health and development communication through creating spaces for the marginalised to actively participate in health discussions through dialogue thereby resisting the traditional top-down Eurocentric knowledge production that suppresses the experiences and voices of the locals in health communication spaces (Dutta et al., 2012). The CCA aims to co-create knowledge and meaning of health issues through dialogic engagements with communities that are largely placed at the margins of mainstream discursive spaces (Jamil and Dutta, 2011). It places value on the voices of the subalterns that are often excluded in health decisions that affect them. It seeks to move from Eurocentric approaches of creating knowledge and understanding communities through authoritative means by creating spaces for dialogue and creating "legitimate entry points into the discursive of knowledge production and policy-making for subaltern voices" that have been traditionally suppressed in favour of Eurocentric perspectives to health communication (Jamil and Dutta, 2011).

While the Culture-Centred Approach (CCA) is most often applied to examine how cultural contexts shape health practices and decision-making, its core emphasis on the interplay between culture, structure and agency provides a valuable lens for analysing how communities interpret and adapt

public health messages. In this study, the CCA is extended to the domain of message interpretation by recognising that COVID-19 prevention messages were inseparable from the behaviours they prescribed, such as handwashing, mask-wearing, and physical distancing. These messages functioned not simply as information but as calls to action, making their interpretation inherently tied to the feasibility, meaning, and cultural resonance of the behaviours themselves. The framework's focus on amplifying community voice is particularly relevant for understanding how top-down COVID-19 messaging, disseminated under urgent, often mandated conditions was interpreted, adapted, and reconstructed. By making local meaning-making the primary focus or starting point, the CCA allows the analysis to move beyond whether messages were understood "correctly" toward exploring how communities reconstructed them in ways that reflected their lived realities, constraints, and cultural logics. This adaptation of the CCA highlights its applicability and relevance in this study.

3.3 The value of context and dialogue in the CCA

As opposed to traditional or dominant health communication theories, the CCA proposes the consideration of cultural contexts as entry points to the theoretical insights of "how health decisions and meaning are negotiated in cultural communities" (Dutta, 2008). As such the CCA offers informed theoretical frameworks for formulating locally-driven health programmes that considers the cultural settings that influence health decisions. Dutta and Pal (2010) argue that local meanings and interpretation of health issues and interventions can solely be understood through engagement in dialogue with the "cultural insiders" which refers to the members of the community who live and experience the cultural dynamics within their given community. In other words, the CCA seeks to deconstruct the authoritative knowledge production in favour of co-constructed knowledge and meanings from the viewpoint of the cultural insider. The sole aim is to foster a bottom-up approach to understanding the health meanings and experiences (Jamil and Dutta, 2011).

The CCA suggests that understanding the needs of an individual requires an intentional attempt to create spaces for the marginalised voices of the individuals within the communities that are systematically silenced by dominant authoritative or expert voices (Dutta, 2008). It creates space for deconstructing the dominant theories and understanding of issues recognising the extent to which this school of thought perpetuates the marginalisation of local voices in dialogues involving them through the promotion of uninterrupted Eurocentric values as universal, applicable to all. Key questions in challenging these dominant approaches are essential and these include the

consideration of the extent to which such approaches further create and perpetuate marginalised spaces, how the dominant approaches in health communication hold certain knowledge claims as factual thereby denying subalterns space to participate in the process of knowledge production? How does the dominant approach systematically promote the voices of the dominant structures at the extent of the subaltern voices? These questions serve as tools for questioning the power relations between those in authority and the locals who are largely marginalised, the CCA aims to reverse this dominant approach to health communication through affording space to the subalterns to share their stories and experiences through co-constructive dialogues with community members (Dutta, 2011).

The strength of the CCA in health communication is in its recognition of the subaltern communities in health not just as recipients of health messages and interventions but rather as active participants and knowledge producers (Dutta, 2011). The CCA has an "emancipatory commitment" that it fulfils through the intentional engagement with the subaltern communities that are typically excluded in mainstream health communication platforms (Dutta, 2007; Munshi and Kurian, 2005). Through creating these spaces that allows for experts to engage in dialogue and listen to the voices of the subalterns, the CCA attempts to provide a theoretical guide to understanding the interactions between structure-culture and agency which are the key constructs of the CCA.

3.4 Constructs of the CCA: Culture, Structure and Agency

The CCA provides a theoretical base to interpret and analyse the lived experiences of subalterns, asserting that health communication is the engagement and discussion of health experiences and meanings in a cultural context; putting value on the socially and culturally constructed meanings of health (Koenig et al., 2011; Dutta, 2008). This reconstruction of health meanings within communities is achieved through a close interaction of the three constructs of the CCA which are culture, structure and agency. Culture refers to the dynamic and changing meanings of the lived experiences of marginalised groups (Dutta, 2011). Culture is embedded in the cultural meanings that subalterns hold about their challenges and experiences in society (Dutta et al., 2012). Structure refers to the social realities that limit or enable people to make health decisions or adopt health behaviour changes (Dutta, 2012). Structures could be policies or institutional networks that favour health choices of certain population groups while inhibiting access for marginalised groups through constraining resources (Dutta, 2011). Finally, agency refers to the space created for marginalised cultural groups to actively engage and make choices regarding their health issues.

Through agency, members of a cultural group are afforded an opportunity to engage with dominant discourses in health communication and enable negotiations within their communities (Dutta, 2016). These constructs are discussed in detail below also providing operational definitions of these constructs in this study. The CCA suggests that progressive health decisions and commitments are reached through a healthy interplay between culture, structure and agency (Dutta, 2008).

3.4.1 Culture

Culture as a construct of the CCA is rooted in the local context of community members as these provide spaces for negotiating health meanings (Acharya and Dutta, 2013). Culture creates a framework for communicating health meaning, realising that the manner in which cultural members make sense of health issues affecting them is influenced by cultural attributes such as beliefs, values and practices (Dutta et al. 2016). These cultural attributes are context specific, making health meanings of particular cultural groups localised to certain contextual settings. In other words, health meanings will differ across different communities as a result of the differing cultural beliefs, values and practices. Dutta et al. (2016) further hold that health meaning within a specific cultural community is not stagnant, denoting that communities continuously change the way they view their health challenges through experience and continuous engagements. Thus, these culturally influenced health meanings are bound to change over time owing to different factors including the manner in which communities view and understand their susceptibility, or lack thereof, to a health challenge over time. The value of culture is in the dialogic engagements with cultural members and how they interpret their health challenges and proposed health interventions.

The role of culture in health communication is relevant in this study as local communities in eThekwini drew from their cultural backgrounds and contexts to make sense of the Covid-19 communication. Assuming that the Covid-19 communication is detached from the cultural setting, limits a holistic understanding of communities and how they interpret as well as respond to the communication through reconstructing the dominant Covid-19 prevention messages in favour of localised and culturally relevant messages. This study recognises that within the CCA, individuals are placed within realms of collective meaning making and this is largely influenced by culture and thus a close consideration of culture sheds light on how local communities interpreted and reconstructed COVID-19 prevention messages within their local contexts. This study further recognises that health decisions in the community are not reliant on the individuals but the

understanding of cultural values, beliefs and practices that shape the community's views about COVID-19 prevention is important. Whilst COVID-19 called for individuals to make decisions to protect themselves and those of others, but isolating and quarantining, these individual strategies are not devoid of wider cultural systems and dwelling structures.

Limited consideration of the role of culture in health communication can be observed in the formulation of the COVID-19 prevention messages which were dominantly around personal hygiene, social distancing and mask use. In their very nature, these messages were developed from an individualistic perspective that highly considers cultures in the industrialised world (Renzaho, 2020). As an illustration, the idea of maintaining personal space, independence and privacy are informed by Western cultures and these were key in the adoption and maintenance of the social distancing messages. However, what is interpreted as privacy and independence within Western cultures means loneliness and isolation within African cultures which are largely collective (UNESCO, 2020). The custom of taking care of the sick and people in need and the sharing of social responsibility is key within African cultures and therefore anything opposed to this is likely to create stigmatisation especially within communities where COVID-19 is not fully understood (Renzaho, 2020). This could to some extent explain the concerns about the lack of adherence to the social distancing and isolation measures.

In African contexts where there is no space for privacy and self-sufficiency, members become dependent on each other thereby undermining the rules of social distancing and within these scenarios' governments tend to adopt top-down approaches to reinforce the prevention measures through brutality and violence. This further undermines the principles of the CCA as governments become the main authoritarian voice in health communication necessitating the adoption of prevention measures without considering the needs and cultural contexts of the communities (Rahenzo, 2020; Jaja et al., 2020). The extent to which this approach that ignores the local and cultural contexts of communities in the promotion of COVID-19 messages is effective remains to be established. The COVID-19 messages such as those of social distancing should specifically consider cultural diversity and contexts realising that a one-size-fits-all approach to health communication and COVID-19 prevention is flawed. It is within this context that this study sought to understand the cultural contexts of the three research communities in eThekwini in order to appreciate the cultural role in how they understood the COVID-19 communication and how they drew from their cultural values, beliefs and contexts to reconstruct these prevention messages for their localised contexts.

3.4.2 Structure

Structure refers to the social and institutional systems that hold resources to health accessibility of a community (Dutta, 2016; Acharya and Dutta, 2013). At a macro-level, structure refers to resources such as national and international political actors, points of policy formulation, and national as well as global corporations that work in tandem with the structure at a micro-level (Dutta et al., 2012). In health communication, structures determine resource availability and accessibility, health assumptions to providing these resources to a community and the conditions for providing these resources (Dutta, 2016). Furthermore, structures have the determining power of health services available and restricted to marginalised communities and this in turn determines the extent to which subalterns are able to enact agency in responding to health issues affecting them (Dutta et al., 2012). Structures have a dominant determining voice on the health options available to marginalised communities as they can offer or limit a community's accessibility to available health interventions. This means that in these instances the power to make health decisions is highly influenced by structures who hold social and structural powers to resource allocation.

In addition to this, structures can also allow space for health changes through challenging dominant discourse in society that influence health communication and policies. Structural constraints become evident within cultural contexts in different communities. These constraints are expressed and understood through the everyday experiences of communities within their own cultural contexts as well as the sharing of these experiences. The emphasis in the CCA is to gain a sense of understanding of these structures that limit the possibilities of resources for members of a community (Dutta et al., 2012).

The CCA theorises the structural constraints as inequalities in health communication that minimises the opportunity for marginalised voices to be heard and considered in communication discourses (Dutta-Bergman, 2004). At the centre of the CCA is the conceptual framework that suggests that structural inequalities are intertwined with communicative inequalities (Dutta, 2008). As such, redressing inequalities in resource allocation and accessibility is key. Scholars emphasise the important role of communication in co-creating spaces that recognise a representation of the marginalised voices within community committees or boards, grassroots organisations and local social movements that emerge as sites for marginalised communities to actively participate in the process of knowledge production (Basu and Dutta, 2008; Dutta, 2008; Yehva and Dutta, 2010).

This study acknowledges the construct of structure within the CCA as it has potential to influence the extent to which marginalised communities have the ability, resources and space to enact or adopt the COVID-19 prevention messages. This study views structure both at the macro and micro level as it considers the policy and political space where COVID-19 communication is formulated and influenced as well as the local structures that hold an influential voice in how communities interpret and reconstruct the COVID-19 prevention messages within their contexts.

3.4.3 Agency

Agency reflects the active response of individuals, cultural members and communities; in dealing with structural constraints imposed on them in order to openly challenge these constraints while also creating healthy engagements with these structures to overcome the structural constraints (Dutta, 2016). Agency further reflects the everyday health choices and health behaviour change decisions adopted by communities in the context of structural constraints facing them. Agency then creates interactive spaces in the community to allow for subalterns to voice their challenges and their struggles and processes of engaging with dominant structural discourses limiting health accessibility and health choices for them. In the context of this study, recognising the interplay between structure and agency remains central in understanding the extent to which these influenced the local interpretations and adaptations of the COVID-19 prevention messages. Realising the structural opportunities and barriers to the adoption or enactment of the COVID-19 messages in the three EThekwini communities' sheds light in the broader understanding of how future messaging and resource distribution should be approached.

3.5 The CCA and participation

The CCA represents an interplay between culture, structure and agency in communication. While agency is "communicatively expressed", this process largely draws upon cultural meanings and is located in its relationship to structures (Dutta, 2018: 241). Engagement in the co-creation of legitimate spaces that ensures the recognition and representation of the erased meanings and suppressed voices of the traditionally marginalised communities offers entry points to the design and formulation of culturally grounded health solutions that responds to the cultural needs and contexts of the local communities (Dutta, 2018). The methodological approach of the CCA seeks to identify broad health theories that reflect the experiences and views of the local communities, and develop health interventions that are suggested and formulated by communities. This methodological framework seeks to achieve two main goals which is firstly to build a theory from within the community and secondly to highlight health and social solutions that emerge within

communities (Dutta, 2015, Dutta, 2018). Traditionally, in health communication, the CCA has been applied to examine how cultural contexts, structural conditions and community agency shape health practices, such as preventive behaviours and the uptake of health services. This study expands that application to the interpretation and reconstruction of top-down public health messages in a pandemic context. This extension is particularly relevant because COVID-19 prevention messages were not abstract information but were inherently intertwined with prescribed behaviours such as mask-wearing, hand washing and physical distancing. Through applying the CCA to explore how these behaviour-linked messages were interpreted, adapted and reconstructed within socio-cultural contexts, the study makes a theoretical contribution by broadening the framework's scope to encompass message interpretation in health communication during pandemics. In the main, this study highlights the voices of the study participants who belong to marginalised communities and whose voices are largely suppressed in health communication formulations.

Complementary to an extensive body of scholarship on community-based participatory research (CBPR) (Israel, Schulz, Parker, & Becker, 1998), the CCA highlights community participatory processes in problem solving (Dutta, 2018). The CCA necessitates a journey in solidarity for the researcher and the marginalised communities to co-construct meanings that challenge the dominant approaches and structures in communication, in attempts to upend the top-down approaches that perpetuate inequalities and the suppression of subaltern voices in discursive spaces (Dutta et al., 2012). The CCA builds on the CBPR that adopts participatory approaches for community engagement in formulating and designing health interventions (Dearing, 2003; Dearing et al., 2011). It moves further than this to broaden the definition, meaning and design of community participation to include subaltern voices with the main aim of building theories from below (Dutta, 2008). As a theoretical approach, the CCA does not solely aim to incorporate participation as a tool for community engagement in disseminating health interventions through the adoption of the CBPR, but rather seeks to create dialogic spaces within marginalised communities to explore, interrogate and develop participatory communication in culturally and locally meaningful and contextual ways thereby presenting locally formulated theories of health (Dutta, 2018; Bryan et al., 2010; Bretthauer-Mueller et al., 2008).

At its core the CCA offers a platform for writing the theory from below through engaging in dialogue with subalterns whose voices are traditionally excluded. The CCA thus seeks to generate meaning through a participatory framework. Drawing from the principles of the CBPR and the CCA, this study seeks to challenge the dominant approaches to health communication that tend

to silence the local voices in the development of health interventions through creating discursive space for the voices in the margins. The participants in the three study sites in eThekwini were engaged through a participatory process to understand their local interpretations and adaptations of the COVID-19 prevention messages. The study provides a discursive space in which the erased subaltern voices are given meaning and this is done with an intentional consideration of the cultural contexts and structural enablers or barriers to the adoption of the recommended prevention messages in the eThekwini communities.

3.6 Conclusion

In conclusion, the adoption of the CBPR and the CCA in this study creates opportunity for participants' engagement and participation in the research process. Both the CBPR and the CCA call for the recognition and meaningful engagement and involvement of the participants in research. The CCA specifically realises that individuals are located within cultural settings that influence their understanding of health challenges and influence the extent to which they are willing to adopt interventions that are meant to reduce health disparities in their communities. Thus, the CCA creates spaces for dialogues with the marginalised communities with the acknowledgement that they understand their situations better. This study extends the Culture-Centred Approach beyond its traditional application to health practices by using it to analyse the interpretation and reconstruction of behaviour-linked public health messages during a pandemic, thereby broadening the framework's relevance to health communication during pandemics. In turn the CBPR assumes a collaborative approach to research that makes both the researcher and the participants to be equal partners in research that leads to social transformation. The emphasis on co-learning and mutual benefit are key to the CBPR. As such in the context of the Westernised COVID-19 prevention messages that do not consider the local and cultural contexts, it is central to conduct research that intentionally considers the views and experiences of communities relating to the pandemic. The current top down approach in the COVID-19 prevention messaging has a possibility of being less effective in marginalised communities given the social and structural inequalities experienced in these communities.

Chapter 4: Research Methodology

4.1 Introduction

This study proposes a shift from traditional research methods in health research that tend to give power to authoritarian voices. It seeks to explore the adoption of a community based participatory approach to research that balances the scale between the researcher and the research participants. Traditional health research methodologies tend to adopt a bottom-up approach in seeking to understand the acceptability and adoption of health interventions within local communities. However, years of research have shown the ineffectiveness of this research approach in influencing behavioural change and motivating participants to engage in health interventions. This is evident with the current COVID-19 prevention communication that seeks to prescribe a set of interventions to be adopted by communities without engaging them in crafting these health messages.

In a context of increasing COVID-19 cases in South Africa and globally, there is a need to reconsider the research approach to communicating health interventions within local communities. As discussed in the previous chapter, this study appreciates the social and cultural contexts in which individuals and communities exist and how these influence their behavioural patterns towards the acceptance and ultimately the adoption of health interventions that are likely to lead to positive health outcomes. Individuals are located within social and cultural spaces and these play a critical role in the interpretation and construction of health communication in creating locally relevant health messages.

This thesis argues that the current formulations of COVID-19 prevention messages that focusses largely on the sciences thereby turning a blind eye towards the importance of a people's science in COVID-19 prevention are greatly flawed. In the absence of a cure for COVID-19 there is growing need to consider the behavioural and social sciences of disease prevention appreciating that individuals are not removed from their local cultures and that all effective prevention should also avoid focusing interventions on individuals and placing the responsibility of intervention adoption on the individual as it is currently evident with COVID-19 prevention messaging. The people's science should also prevail.

In a context of limited research on effective COVID-19 prevention communication, this study sought to explore traditional science research towards health communication and the development of interventions through a community-based participatory approach that places

communities at the centre of formulating health interventions that are both socially and culturally relevant for them. This approach has been shown to be effective in previous HIV and Ebola research, which moved away from being solely driven by the sciences towards involving communities in crafting effective health interventions. This study draws from this previous research by adopting alternative research to COVID-19 communication that seeks to understand how local communities interpret the current COVID-19 prevention messages, how they have adapted and reconstructed these prevention messages to create localised messages that are relevant and meaningful within local contexts.

4.2 Description of the study site

This study was conducted in the KwaZulu-Natal province of South Africa, with a sample of densely populated communities that are categorised as rural, informal or township settings. The study was conducted in the eThekwini Municipality, in three types of settings; rural, township and an informal settlement. Umlazi is a township 19 kms south of Durban. This township is the 4th largest in South Africa, and the biggest township in KwaZulu-Natal (Statistics South Africa, 2011). Umbumbulu is a rural area situated in tribal land, 45 kms south of Durban, and Cato Crest is an informal settlement situated in Cato Manor, 9kms from the Durban city centre. The area is characterized by densely populated informal shack housing. The three research sites were selected for their unique location attributes, which provided useful insights on similarities and differences pertaining to how people from these three different types of communities interpret, adapt and re-construct COVID-19 prevention messages.

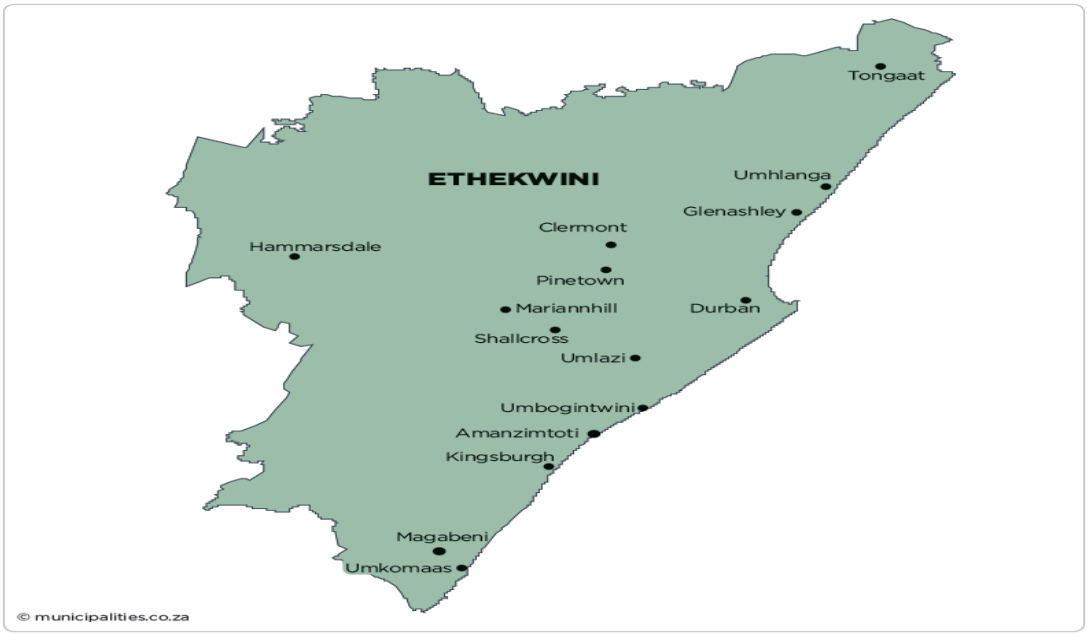


Figure 4.1: Map of eThekwini

Overall eThekwini is characterized as one of the biggest metropolitans in South Africa that are densely populated and an economic hub of the KwaZulu Natal province (Mbambo and Agbola 2020). During the resurgence of COVID-19 following the heavy national lockdowns, eThekwini was listed among the COVID-19 hotspots metropolitans alongside Cape Town, Buffalo City, Nelson Mandela Bay, Ekurhuleni, Johannesburg and Tshwane (Ramaphosa, 2020). Given the economic viability and large population of this district, it was inevitable that it would be among the mostly affected. Thus, eThekwini is a site of interest in understanding COVID-19 communication within their communities; and experiences and perceptions of the selected communities provides an opportunity for reconsidering effective communication strategies that considers the varying local contexts of eThekwini communities.

4.3 Community-based participatory research: An overview

The current COVID-19 prevention messages and strategies which are developed from an individualistic and Western perspective largely excludes the voices and perceptions of local communities particularly in the African context. The side lining of communities in research that involves them tends to create poor engagement with the recommended interventions as the contextual settings of the communities are not considered. In efforts to ensure research that actively involves the local communities the community-based participatory research (CBPR) has emerged as an alternative approach to traditional research approaches that ought to treat

participants as subjects of the research project (Wallerstein and Duran, 2006). It seeks to integrate education and social action in efforts to improve the uptake of health services and interventions (Wallerstein and Duran, 2006). It further promises to be a suitable research paradigm to address and reduce the persistent health disparities within communities (Horowitz, 2006).

The CBPR is more than just a methodological approach to conducting research but an orientation to research that specifically focusses on the relationship between the researcher and the communities or community members that are being researched (Wallerstein and Duran, 2006). The relationship between the research partners which are the community partners and the researcher is to a large extent guided by four overarching principles. Firstly, there should be legitimate partnership which would translate to co-learning in which the researcher and community partners mutually learn from each other (Wallerstein and Duran, 2006; Israel et al., 2003). Secondly, the research should not solely be about undertaking the research study but it should have a component of capacity building and this is achieved by an intentional commitment to train the community members on the research conducted (Wallerstein and Duran; Israel et al., 2003). Thirdly, the research findings and knowledge generated through the research should be mutually beneficial to both the researcher and the community partners (Wallerstein and Duran; Israel et al., 2003). Lastly, there should be a sustained long-term obligation to effectively reduce the disparities that are evident within the research community (Israel et al., 2003) and incorporate “community theories, participation and practices in the research efforts" (Wallerstein and Duran, 2006). The CBPR further seeks to achieve the goal of transforming societies (Minkler and Wallerstein, 2003) through the empowerment of communities to take ownership of health programmes and interventions that they have actively participated in their formulation and development. The systematic incorporation of community participation and decision-making platforms into research efforts is a key feature of the CBPR.

4.3.1 Tracing the origins of the CBPR

The community-based participatory research has its origins in the combination of action research and participatory research and both the research approaches are rooted in the fields of education and social science (Khanlou and Peter, 2005). Action research which is referred to as Northern Tradition originates from the work of Kurt Lewin who was a German social psychologist (Lewin, 1948). In the 1940s Lewin called for an alternative research approach that promoted principles of social transformation. His action research approach incorporated components of fact finding, reflection and action steps that led to research that promoted social action and this approach to

research resonated with social scientists. In his conceptualisation of action research, he was opposed to the positivist paradigm that treated participants in a subjective manner, he instead argued for a collaboration between researchers and community members as equal partners in research (Ferreira and Grendon, 2011). The main elements that defined action research were participation and collaboration in the design and conduct of the research within communities (Fontaine, 2006). However, the political and social consciousness of the 1960s and 1970s led scholars and researchers to believe that obtaining social action through research required a participatory approach in which the researcher and the communities involved were meaningfully engaged in the research process. This consciousness led to the birth of participatory research (McTaggart, 1997).

The participatory research approach also referred to as the Southern Tradition has its roots in work undertaken in Latin, Asia and Africa which was aimed at societal transformation through "experiential knowledge" (Ferreira and Grendon, 2011). As a combined concept participatory action research applied the "liberation pedagogy" in the context of adult education in Latin America and it aimed to provide space to "conscientise transformation" among social groups that are largely oppressed and these include natives, marginalised communities as well as women (Ferreira and Grendon, 2011). Participatory action research moves away from traditional research approaches as it involves individuals or communities as collaborators in the research rather than solely making them research objects (McTaffart, 1997; Fontaine, 2006). In this manner communities are meaningfully engaged in research to improve the situations they face within their communities.

The concept of "consciensitisation" was brought into the formulation of participatory action research by Paulo Freire who was a Brazilian educator. He regarded "consciencetisation" as a key component of cultural transformative action that involves learning to understand the social, political and economic differences in an effort to develop critical awareness that allows members of the community to act against oppressive situations they face in society (Freire, 1970). Freire was highly opposed to the authoritarian approach of teaching that positioned students as recipients of information or knowledge and teachers as givers of the knowledge. He further challenged the positivist paradigm which draws largely from Western orientations in which researchers study the world in an objective manner, in isolation from the participants' subjective meanings of how they view and perceive the world within their own contexts. He held strongly that any research conducted within communities should incorporate the people within that community as well as their perceptions in attempts to understand the world through the lenses of

the people who live in it. Thus, within the education sector, the teacher should be the student and the student be the teacher. In other words, this asserts that in community research, the community members should not be treated as subjects of the research but rather the researcher must approach the community with the aim to learn from the people and understand the community from their own perspective. In Freire's conceptualisation, education and research occurs in a cultural circle which is community-based and aligned to the needs of the communities of interest. Furthermore, the research approach is flexible and empowers the community members as opposed to the Western approaches which are to a large extent authoritarian (Ferreira and Grendon, 2011).

Considering the main principles of the CBPR and its formulation, this study adopts a similar approach that removes the research power from the researcher but rather creates a collaborative space that is characterised by co-learning and mutual benefit between the researcher and the research participants. The participants in Umlazi, Umbumbulu and Cato Crest are the collaborators in the study and the researcher endeavoured to understand their local interpretations of the COVID-19 prevention messages and strategies from their own perspective. In this manner, the researcher does not recognise the participants from these study communities as passive in the research process but rather as experts within their communities in understanding the interpretation and reconstruction of the key COVID-19 prevention messages and associated behavioural responses.

4.3.2 The rise of CBPR in health research

The past two decades have seen a fundamental shift in the manner in which researchers view participants within communities and this is aligned to the rise of the CBPR. The shift included the alteration in how researchers have traditionally been seeing participants as patients and mere beneficiaries of health interventions to an inclusive perception that sees individuals as important partners and experts who are able to make invaluable contribution in understanding the source of their health challenges and can mobilise to develop interventions that are sustainable and suitable for their communities (Horowitz, 2009). There are substantial differences between traditional research and CBPR, what is largely coined as participatory research projects has different levels of participation in the project conceptualisation, development, design and implementation up to the dissemination of the research findings. However, the CBPR can be distinguished from traditional research that is placed within communities because such research is merely situated within communities but does not necessarily involve communities in a meaningful way, making community participants to be passive participants in research studies

who either only participate in the study recruitment and/or interact with researchers in more formal meetings within communities. Within the CBPR the distinction between the researcher and the participants is blurred, the community members become part of the research team (Horowitz, 2009).

The current COVID-19 pandemic has posed challenges to the core principles of the CBPR as data show a disproportionate distribution of COVID-19 infections with the largest numbers recorded within marginalised communities and according to the CBPR these are the main communities that it seeks to engage, support and empower (Oppe et al., 2020; Wallerstein and Duran, 2006). It has been largely observed that a significant number of individuals from the marginalised communities fall in the category of “essential workers” who are either front-line workers, work in food production and other jobs that cannot be done remotely and this has of course increased their exposure to the pandemic as opposed to individuals from upper communities who could adhere to the lockdown regulations and do not live in densely populated communities that limit the individual’s ability to practice prevention measures such as social distancing (Cowger et al., 2020; Oppel et al., 2020; Turner-Lee, 2020).

The elevated rise of COVID-19 infections in marginalised communities is arguably compounded by the persistent challenges to effective community participation in research which is meant to be addressed through the adoption of the CBPR. In efforts to develop effective interventions that respond to the specific needs of the communities, the CBPR offers hope as an alternative research approach that will conduct research in a contextual and culturally sensitive manner without alienating the community members in the research projects (Bradley et al., 2019; Wallerstein and Duran, 2006). Realising the deeply entrenched structural inequalities experienced by marginalised communities and have been brought to the fore more visibly by the pandemic, the CBPR is becoming even more relevant in exploring these health disparities and inequalities in attempts to develop effective interventions with researchers and communities working together (Valdez and Grubium, 2020). The CBPR is unique from other research approaches in the sense that it recognises the strengths and valuable contribution that both researchers and community partners bring to the research project by bringing a research topic that is relevant to the community and the main aim is to combine knowledge and action in order to attain social change to address health challenges within communities (Minkler and Wallerstein, 2003).

In the same vein, this study is conducted during the global pandemic that has affected marginalised communities who have limited access to resources as a result of deeply entrenched social, structural and economic injustices. The study communities which are characterised as rural, township and informal settlement are regarded as part of marginalised communities in eThekwini placing them at increased risk of infection as they are in some instances unable to effectively practice the WHO recommended prevention messages of social distancing, hand washing and mask use due to the deeply entrenched social and economic injustices within these communities. Thus, in a context where the COVID-19 prevention messages may not be interpreted and received in the same manner by different communities, it remains central to explore in a collaborative manner how these messages reflect or address the health needs of these communities. This study moves away from the mainstream conceptualisation of health messages that tend to adopt a top-down approach through the transfer of health messages from authoritarian positions to local communities without considering their local contexts as well as their views, experiences and perceptions of the COVID-19 challenges and proposed interventions. Instead this study involves the research participants in the research to get a better understanding and view of the COVID-19 challenge from the perspective of the communities.

In the context of the CBPR, Horowitz (2006) suggests that the community be interpreted in broad terms to include all individuals who will be affected by the research. This could be in geographic terms, in this instance this would refer to the rural (Umbumbulu), township (Umlazi) and informal settlement (Cato Crest) communities in eThekwini. It could also refer to a group with common traits such as identity, illness or challenge, for this study the participants are community members from marginalised communities which are affected by the COVID-19 pandemic, they are from the same socio-cultural context and face almost similar challenges relating to the COVID-19 infections. Lastly, the community could refer to a community group with shared concerns or interests, the COVID-19 infection rates and the ability or lack thereof to adopt the recommended prevention measures is regarded as a common concern for the study participants. A number of factors that influence health are not limited to a single health intervention but are rather embedded within communities that possess certain resources and characteristics. As such the adoption of the CBPR is crucial in addressing the deeply entrenched health disparities within communities as it creates an opportunity to fully understand the health challenges through the lens of the participants thereby making community participants agents of change within their communities if they are actively and meaningfully involved in the crafting of the prevention messages that are relevant to them.

In summary, the CBPR is characterised by a number of factors and the table below presents the key characteristics and how they are applied to this specific study.

Characteristics of the CBPR	**Application to the study**
Community partners (participants) and the researcher are equal partners in the research project and contribute equally in all phases.	The researcher engaged with the participants from Umbumbulu, Cato Crest and Umlazi to inform the research. The participants were regarded as partners throughout the research process.
The research process should foster trust, collaboration, shared ownership and shared decision making, the research findings and knowledge generated should benefit all partners.	A trusting environment was created in which participants were collaborators in the research process, the knowledge and findings reflect the views and perceptions of the participants in the different study communities.
Researchers and community partners appreciate their different expertise in the research process and create space for co-learning.	The researcher did not approach the communities as a sole expert but placed great value on the voices and views of the participants to create a space of co-learning.
Recognise the skills, strengths, resources and assets of the communities.	Appreciating the different skills and strengths that the participants bring to the research project was central as this allowed the researcher to better understand the social and cultural contexts that influence the communities' local interpretations of the COVID-19 prevention messages and how they draw from their skills and strengths to reconstruct these.

Emphasises the numerous determinants of health	The researcher acknowledged the differences between the communities and how the specific conditions of each community contribute to the understanding of COVID-19 prevention realising that these might vary across the three study communities.
Key components of the CBPR include capacity building of locals, the development of systems, community empowerment and sustainability of interventions.	The extent to which the study sought to capacitate locals is through creating space for them to identify health challenges within their communities and how the COVID-19 prevention messages apply to them. This realisation could influence how they interpret and understand the world. Through this research the participants could be empowered to think of ways in which they can contribute to localised prevention messages that address their local needs.

Table 4.1: Characteristics of CBPR and applicability (Adapted from Horowitz, 2009)

4.6 Research paradigm: Intersection of constructivist and participatory worldview

In line with the CBPR, this study is located at the intersection of two philosophical assumptions, the constructive paradigm as well as the participatory worldview. The constructivist paradigm asserts that there are multiple realities (Denzin and Lincoln, 2005) and individuals construct meaning and knowledge of the world around them through lived experiences and reflecting on those experiences (Honebein, 1996). This paradigm draws from the analogy that individuals learn from experiences (Adom et al., 2016) and therefore understanding individuals within their contexts cannot be detached from these experiences. This paradigm places great value in understanding and interpreting how individuals' makes sense of their immediate world within their own contexts. Thus, in efforts to understand the local interpretations of COVID-19 in Umbumbulu, Cato Crest and Umlazi. A key feature of this is to understand these interpretations within local contexts where people exist and also explore how they have adapted and reconstructed these messages within their local contexts. The constructivist paradigm is central in informing this study as it appreciates

the multifaceted nature of the truth and reality, realising that there is no universal reality. This study builds on this approach acknowledging that the study participants socially construct reality within their contexts and for the effectiveness of the COVID-19 prevention messages there is need to consider and understand how context influences the construction of reality.

While this paradigm is important and relevant for this study, the participatory worldview points out the shortfalls of this paradigm and builds upon it for a comprehensive and participatory focussed approach to understanding the local interpretations of COVID-19 in the selected study sites. The participatory worldview challenges the major research paradigms which are: positivism, post-positivism, critical theory and constructivism (Guba and Lincoln, 1994; Heron and Reason, 1997). The participatory worldview paradigm seeks to bridge the identified gaps within these philosophical approaches by recognising that "our world is co-created by the given cosmos and by how we apprehend it and make choices within it" (Heron, 2001: 333). The essence of the participatory worldview paradigm is on the promotion and encouragement of participation in research in which both the researcher and the participants are equal collaborators. It further emphasises the importance of incorporating an action agenda in research with the aim of addressing the identified issues within communities, particularly within marginalised communities. This paradigm will be discussed in detail below, highlighting its origins and deviation from dominant philosophical paradigms as well as its application in this study.

As a philosophical approach, the participatory worldview emerged during the 1980s and 1990s drawing largely from the views that traditional post-positivists paradigms were detached from the realities of individuals within society as they did not consider key issues and social justice issues that affected the marginalised in society (Creswell, 2009). These paradigms tend to prescribe laws and theories that are isolated from the views and issues affecting the marginalised populations. Among the main shortfalls of these paradigms in research as noted by participatory writers is the incomplete approach of constructivism that is focused largely on the construction of realities within particular contexts but does not immense itself in establishing action to address the constructed truths and realities in a manner that benefits the marginalised (Creswell, 2009). Similarly, Heron and Reason (1997) points to the shortfalls of the constructivist paradigm by noting that constructivism fails to recognise what they refer to as "experiential knowing". In essence experiential knowing refers to the idea that defining reality and knowing happens in various forms which include "knowing by acquaintance, by meeting, by felt participation in the presence of what is there" Heron and Reason, 1997: 5). In other words, constructivism does not clearly establish the relationship between the construction of realities as well as the original

“givenness of the cosmos” (Hero and Reason, 1997: 3). The construction of reality is not detached from the realms of space and time but rather reality is constructed through experiential knowing as a foundation.

Drawing from the shortfalls of the dominant philosophical approaches, the participatory worldview proposes a philosophical approach that is entrenched on participation and places value on the formation of participative realities (Heron and Reason, 1996) as they better represent the marginalised communities and seek to address social justice issues evident within societies. This paradigm seeks to address critical social issues that include but are not limited to issues of empowerment, inequality, oppression and exclusion (Creswell, 2009). In addressing these issues, the participatory worldview places the researcher and the research participants as collaborators in the research process with the aim of avoiding further marginalisation of participants but seeks to provide voice to participants. Participants can participate in various aspects of the research through either designing the research questions, collecting data, analysing the data or benefitting from the research (Creswell, 2009). In essence, this research paradigm focusses on uplifting and providing a voice to the marginalised within societies making them co-researchers.

Equally important in the participatory worldview is not solely the participatory nature of the approach that seeks to empower and provide voice to the marginalised but the action agenda that results from participatory research. As Creswell (2009:5) points out, research within the participatory worldview should contain an action agenda that is aimed at improving or changing the lives of the participants by addressing key social issues affecting participants within their communities. It is arguably insufficient to focus mainly on the construction of reality without any focus or attempt to address the inequalities and social injustices presented or unravelled the constructed reality. Proponents of the participatory worldview note this incomplete approach to research as a key shortfall of the constructivist paradigm to framing research. Bridging the gap between what is understood as the truth and reality and what we do to address the bitter truth is arguably a key strength of the participatory worldview and what fundamentally differentiates it from the constructivist paradigm.

4.7 Application of the participatory worldview paradigm

The study is centred on the key premise of engagement, inclusivity and participation of the marginalised communities in research. These components are supported by the philosophical underpinnings of the participatory paradigm. In this context of this paradigm, this study sought to adopt a community based participatory research approach to understand how three communities

from different geographical locations categorised as rural, informal and township, have interpreted, deconstructed and reconstructed the key COVID-19 prevention messages in efforts to create localised meanings. This study sought to move beyond the understanding of reality and truth through the constructivist paradigm that places emphasis on the social construction of reality but downplays the importance of the participatory component in the quest of reality construction. This study assumes that the study participants are key in the construction of reality and this reality is influenced by the local contexts. However, it further recognises that the participants' realities are influenced by the experiential knowledge of knowing by “felt participation” of the physical contexts. In other words, the interaction between the study participants and the cosmos provides a more complete approach to understanding the world and what it means to the participants that live in it.

In order to critically show the relevance and applicability of the participatory paradigm, the study draws on the key features of participatory forms of inquiry as outlined by Kemmis and Wilkinson (1998). They list 6 features which will be briefly explained and the relevance of each feature in this study be established. Below are the key features:

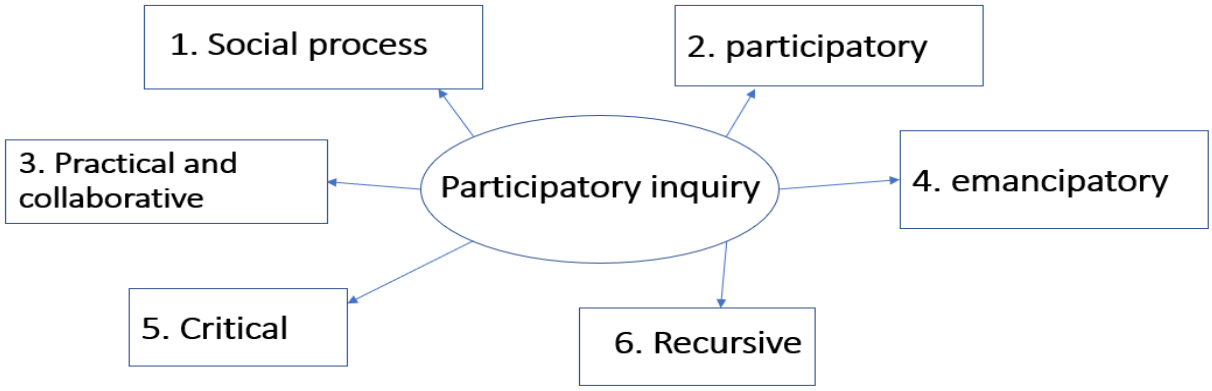


Figure 4.2 six features of a participatory inquiry (adapted from: Kemmis and Wilkinson, 1998)

Participatory enquiries are a ***social process*** that intentionally explores the relationship within the realms of the individual and the social (Kemmis and Wilkinson, 1998). It recognises the interconnectedness of individuals and the social world by acknowledging that “no individuation is possible without socialisation, and no socialisation is possible without individuation” (Habermas, 1992:26). This asserts that the settings and contexts in which people exist are largely shaped by the relationship between individuation and socialisation. It is within this context that this study

recognises the importance of the social process within the communities under study. This study builds on the assumption or knowledge that individuals from Umlazi, Cato Crest and Umbumbulu are not detached from their social settings but rather these settings and their individuality influence how they view and make sense of the world around them. Within the parameters of this study, the focus is also on understanding how people both as individuals and collectively seek to make meaning to the COVID-19 prevention messages within their settings.

Participatory inquiry is ***participatory*** as the name suggests. This feature of participation refers to the engagement of individuals in order to examine their knowledge and understanding of the social world. It further examines the individual's interpretive categories which refers to the different ways in which individuals interpret themselves and their actions within the social and material world they exist in (Kemmis and Wilkinson, 1998). This participatory feature is a process in which individuals engage in the ways in which their knowledge of themselves and the social order shapes their sense of identity and agency to respond to social issues around them. It also seeks to critically reflect on how present knowledge and understanding of issues frames and constraints their actions (Kemmis and Wilkinson, 1998). In line with the participatory nature of this paradigm this study also sought to make sense of how people interact with their social settings within the study sites to interpret, deconstruct and reconstruct the COVID-19 prevention messages. This study engaged with participants through participatory means in order to give power and voice to the participants in understanding how their knowledge and interpretation of the COVID-19 prevention messages have shaped their identity and agency to adopt the recommended prevention strategies.

Research located within the participatory paradigm is ***practical and collaborative***. It is a process in which individuals explore their “acts of communication, production and social organisation, and try to explore how to improve their interactions by changing the acts that constitute them” (Kemmis and Wilkinson, 1998:23) with the aim of minimising the extent to which participants experience these interactions. In the context of this study, the researcher and the study participants worked together in a collaborative manner to understand the interpretation and reconstruction of the dominant COVID-19 prevention messages.

Participatory inquiries are **emancipatory** as they seek to assist individuals to deal with social structures that are irrational, unjust and unsatisfying that tend to limit their self-development and self-determination (Kemmis and Wilkinson, 1998). Furthermore, it is emancipatory because it seeks to allow individual space to explore how their practices and actions are shaped and

constrained by the broader social structures and seek to find emancipatory solutions to these social and structural constraints. In the same vein, this study recognised that decision making and the adoption of the COVID-19 messages was not a detached process from the social structures and thus in order to understand how participants can better respond in an emancipatory manner to the constraints it was important to understand how they are reconstructing these messages within their local contexts in order to generate localised response to the COVID-19 pandemic.

Participatory forms of inquiry are ***critical*** and presents a process in which individuals intentional set out to challenge what they deem as unjust and unsatisfying ways of understanding and interpreting the world around them, the ways of working and the ways of interacting and relating to others (Kemmis and Wilkinson, 1998). This study sought to highlight the critical nature of participatory research through placing the study participants at the centre and affording them space to critically reflect on how they understand and interpret their settings in relation to COVID-19 and its prevention messaging. It further sought to understand how they respond to the COVID-19 messaging and how it has influenced their interactions with the social world and others.

Lastly, participatory research is ***recursive*** (reflexive, dialectical) in the sense that it aims to help individuals to "investigate reality in order to change it and to change reality in order to investigate it" (Kemmis and Wilkinson, 1998:24). In particular by changing their practices through a spiral of cycles of critical and self-critical action and reflection, as a deliberate social process designed to help them learn more about (and theorise) their practices, their knowledge of their practices, and the social media in which their practices are expressed and realised. It is a process of learning by doing and learning with others by changing the ways they interact in a shared social world (Kemmis and Wilkinson, 1998).

4.8 Research design: Qualitative inquiry

This study adopted a qualitative research design to explore how densely populated communities in the eThekwini Municipality interpret, adapt and reconstruct the COVID-19 prevention messages of social distancing, hand washing/sanitising and the use of face masks. Qualitative research seeks to understand and describe human behaviour and the lived experiences of the study participants rather than attempting to merely explain behaviour (Austin and Sutton, 2014; Babbie and Mouton, 2008). It further recognises that there are multiple truths and these are socially constructed. The strength of qualitative research is in its ability to understand the attitudes of participants within their own social and cultural settings and seeing the world through the lenses of the participants themselves (Mohajan, 2018; Berger, 2013).

Unlike the current methodologies used to construct COVID-19 prevention messages, qualitative research design is focussed on understanding human behaviour and experiences with the participants at the centre of the research. It proposes a bottom-up approach to conducting research in which participants do not solely become subjects within their communities and spaces but rather are empowered to be active participants. This research design seeks to understand the world or communities through the lenses of the participants themselves and appreciates their attitudes and experiences within their own contexts (Austin and Sutton, 2014; Mohajan, 2018; Berger, 2013). As such, understanding the localised interpretations, adaptation and reconstruction of the dominant COVID-19 messages within local contexts require a focussed attempt to explore how communities make sense and are able to respond to these messages within localised contexts. The qualitative research design allowed the researcher to understand the study communities within their own contexts and how they make sense and adapt to reconstruct the prevention messages for localised responses. Given the participatory nature of this study, the qualitative research design was the most relevant in undertaking a research that empowers the study participants and is concerned with the construction of realities within lived contexts.

4.9 Sampling

This study adopted a purposive sampling technique to identify the study participants. According to Bottaglia, (2011) purposive sampling is a non-probability sampling technique that purposefully selects participants that have knowledge of the topic under study. This sampling method is not based on statistical representation of the sampled participants but rather on the knowledge and experience that the sampled participants have to contribute to the data collection and deeper understanding of the subject under study. A total of 47 participants with representation from the three study sites took part in the study. The participants were deemed eligible based on the inclusion criteria below and participants were excluded from the study using the exclusion criteria below.

Inclusion criteria

- A resident in one of the study sites (Umbumbulu, Umlazi and Cato Crest)
- 18 years and above
- Be able to speak and converse in IsiZulu

- Have a smartphone with a clear camera

Exclusion criteria

- Below 18 years
- Do not have a smartphone
- Unable to speak and converse in IsiZulu

The participants were recruited by the AIDS Foundation of South Africa, a local non-governmental organisation that works in the three study sites.

4.10 Art-based data collection: Photovoice

In line with the key tenets of the participatory approach and the qualitative research design, this study used photovoice as a data collection method. Photovoice is an art-based methodology which is an innovative naturalistic approach to data collection that provides undiluted lived experiences of the study participants (Ebrahimpour et al., 2018). Photovoice was first introduced as a data collection method in CBPR studies in 1997 and it involves study participants taking photographic images in their communities to document and reflect on the issues significant to them and how they view themselves (Wang and Burris, 1997). This data collection method allows the researcher to unobtrusively enter the worlds of the participants by understanding how they live and how they interpret issues within their own communities.

The photovoice method further allows for detailed and rich dialogues between the researcher and the participants as they reflect on the photographic images and this reveals the hidden truths within communities thereby unravelling detailed findings and understanding of issues within communities and how communities understand and respond to the issues. The photovoice method has three key goals, firstly it seeks to afford the participants space to record and reflect their communities' strengths and concerns. Secondly, it gives space for critical dialogue on the issues and experiences of the communities through group discussions on the recorded photographs. Lastly, it aims to reach policy makers who would have access to the true lived experiences of communities.

In this study participants were key in the data collection process as they captured their reflections and experiences with COVID-19 prevention within their local communities. This methodology allowed participants from varying geographical locations to share their experiences and

participate actively in the understanding of COVID-19 interpretations and reconstruction for localised meanings within their own communities. This approach allowed participants to express them freely in a way that would somewhat be difficult if articulated verbally through traditional interviews. The data collected through this methodology sheds light on the undiluted perceptions and experiences of the study participants and reflects their contextual interpretations and reconstruction of key COVID-19 messaging. Within a context of increasing misinformation about COVID-19 prevention there is need to consider innovative approaches to understanding communities and this could inform the communicative practices broadly on dealing with pandemics with local contexts.

4.11 A longitudinal approach to data collection

The main aim of the study was to understand the interpretation, deconstruction and reconstruction of the COVID-19 prevention messages to create locally relevant messaging. Given that the WHO prevention messages were announced during the hard level 5 lockdown that started from 26 March to 30 April 2020 and have been in effect even with the easing of the lockdown restrictions. Even with the availability of COVID-19 vaccines, these measures still remain in place as part of a combination prevention package. Given the almost permanency of the prevention messages, it was important for the research to also consider contextual changes in how the study communities interpreted and reconstructed the prevention messages in favour of creating locally relevant ones. The changes in the lockdown levels were key temporal landmarks for exploring how communities' interpretations and reconstruction of messages change overtime and specifically with the level downgrades in the case of this study. This study sought to appreciate that individuals' perceptions and interpretation of messages are not rigid and may be affected overtime. The key assumption was that given the varying severity of the second and third waves in the eThekwini Municipality and the intensity in fostering the lockdown restrictions, the participants interpretation and reconstructions of COVID-19 messages would be somewhat different given the experience with the preceding levels.

In line with comparing changes overtime, a longitudinal approach was taken allowing for data to be collected in two phases. These different data collection points were aimed at exploring the differences in perceptions of the COVID-19 prevention messages and how the different waves have influenced how the study participants make sense of the COVID-19 prevention messages and how they have adapted and reconstructed these messages for localised responses. The first phase was between March and April 2021 during the adjusted level 2 lockdown. The adjusted

approach was guided by several criteria including the level of infections and the rates of transmission during the period, the capacity of the health system to accommodate the rise in cases (South African government, n.d). During this level, restrictions were eased on social gatherings allowing for an increased number for outdoor events and limited numbers for in-door events depending on the capacity of the venue, the curfew was revised and sale of alcohol permitted for longer week days. These are among some of the main adjustments made.

The second phase of data collection was between October and November 2021 which was during the adjusted level 1 lockdown. This included further easing of the restrictions. Similar to the adjusted level 2 lockdown, the main prevention measures of social distancing, handwashing/sanitising and the use of face masks were still emphasised in addition to vaccines that were now available for population 18 years and above. While vaccines were already available during the data collection of the study, exploring perceptions and interpretations of vaccines as one of the prevention measures for COVID-19 was beyond the scope of this study.

4.11.1 Data collection Phase 1: Post second wave and during adjusted level 2 lockdown

The first phase of data collection (March-April 2021) was after the period following the second wave of Covid-19 in South Africa which was between December 2020 and January 2021 but was at its highest peak in the first week of January (Jassat et al., 2021). Scientists reported a new variant of COVID-19 during this second wave which was characterised as highly transmissible and led to increased hospitalisation and mortality rates when compared to the second wave (Jassat et al., 2021; Salyer et al., 2021). During this data collection the country was on adjusted level 2 lockdown. EThekwini being the largest municipality in the province of KwaZulu Natal with tourism attractions, it was among the most affected districts nationally. As such, the March to April 2021 data collection was an important time point to understand how communities were making sense of the COVID-19 prevention messages following the COVID-19 scare.

During this first phase data was collected in 3 stages, in the first stage, introductory group sessions were held with the study participants in each of the 3 study sites, which translated to 24 participants being part of the introductory sessions. During this session the study was introduced including the aim of the study. The photovoice methodology was explained to the participants in simple terms without using any academic jargon and the role of participants in the collection of photos in their communities was explained. Any questions arising from this discussion were addressed. Following this process, the consent process was explained in which the consent forms were read and explained in isiZulu, the participants had the option to choose between an English

and IsiZulu consent form. When all participants were clear on the purpose of the study and their role they signed the informed consent form and were given a copy for their own reference.

Following this introductory group session, the participants were allowed a period of two weeks to collect photos in their communities that represent their own understanding and interpretation of COVID-19 prevention and this marked the second stage of data collection. These photos captured their experiences, the issues and concerns within their communities as they appeal to them individually. Three WhatsApp groups were created for each of the study sites, these groups included the researcher and the study participants for each site. The groups were created with the consent of the study participants. The main aim of the groups was for the participants to send all photos they were collecting in the community for proper storage as data collection was continuing. The instruction was for the photos to be sent with a brief description of where the photo was taken and what was happening in the photo.

At the end of the two weeks of data collection, the third stage of data collection was undertaken which were focus group discussions held in each of the three study sites at a date and time that was agreed upon by the study participants. The aim of the focus group discussions was to discuss in detail the photos that were collected and sent to the site WhatsApp group. A discussion guide was prepared prior to the FGDs based on the photos that were sent on the group with the aim of probing more on the photos that were shared. The discussion guide was not closely followed during the FGD as the discussion was allowed to unfold organically, however, in some instances where the discussions were sounding superficial the guide was partly used to facilitate the discussion and probe on the context of the photos that were shared.

The participants were offered transport reimbursements for both the introductory and FGD sessions. During the introductory session, participants were all recharged with 1 GB data for their preferred network to cover the data costs of sharing the photos electronically on the WhatsApp groups. The researcher regularly encouraged participants to send through their photos on the WhatsApp group. In a few instances, participants that were inactive in the group were contacted telephonically to encourage their participation.

Though the sample size was 8 per study site, there were differences in the number of participants actively participating in all three phases of data collection. Table 4.1 below shows the participation numbers per phase.

All introductory sessions had a full number of participants, however, the following data collection activities recorded slight drops in participation. Cato Crest had the most participation compared to the other 2 sites, with 7 out of the 8 sending through their photos and 6 participated in the FGD.

Study site	**Number of participants attending introductory session**	**Number of participants who shared photos**	**Number of participants attending FGD**
Umbumbulu	8	5	5
Cato Crest	8	7	6
Umlazi	9	7	6

Table 4.2: Phase 1: Participation distribution

There were also some observed differences in the data collection timelines across the 3 sites. In Cato Crest and Umbumbulu, the follow-up FGD was held exactly 2 weeks following the photo collection period. Whereas, in Umlazi, the FGD was held on the 3rd week as the participants did not pitch for the initially scheduled date of the FGD.

4.11.2 Data collection Phase 2: Post third wave and during adjusted level 1 lockdown

The second phase of data collection took place between October and November 2021 following the third wave of COVID-19 in South Africa. The third wave started around June 2021 (Institute for economic development, 2021), eThekwini officially entered the third wave in August following the July 2021 social unrests that included looting which was characterised by poor COVID-19 prevention adherence (IOL, 2021). This marked an important time point for understanding how participants' perceptions would change over time. During the period when the data was collected the nation was on adjusted level 1 lockdown.

Similar to the first phase of data collection this phase also took place in three stages which included the introductory group sessions (one in each site), the collection of photos within the community and ended with a focus group discussion to discuss the photos in detail. During the introductory sessions, a total of 23 participants with representation from all the study sites took part. In this session, the study was introduced to the participants and the methodology explained as well as the instructions for participation. Written informed consent was obtained from the participants.

Following the introductory sessions in the three study sites, participants were allowed a two week period to collect photos in their communities reflecting their interpretations, understanding how they perceive and apply the COVID-19 prevention messages. All photos were shared in a WhatsApp group for storage purposes. Each study site had its own WhatsApp group and the researcher was on all groups. The participation in the WhatsApp group varied with some participants not actively taking part while others posted frequently. Inactive participants were contacted telephonically to encourage participation. However, due to network challenges mainly in Umbumbulu (rural community) some participants were unable to share photos in the group but were still able to bring them during the focus group discussions in which an alternative plan for sharing the photos was used (through Bluetooth connection).

The last stage of this data collection phase were the focus group discussions with one for the study site. Below is a breakdown of the number of participants that participated in each part of the data collection for the second phase.

Study site	**Number of participants attending introductory session**	**Number of participants who shared photos**	**Number of participants attending FGD**
Umbumbulu	9	7	9
Cato Crest	7	7	7
Umlazi	7	7	7

Table 4.3: Phase 2: Participation distribution

4.12 Data Analysis

The study adopted Braun and Clarke's reflexive thematic analysis to analyse the data that was collected from the 3 study sites on the interpretation, adaptation and reconstruction of the dominant COVID-19 prevention messages. Reflexive thematic analysis (RTA) was born from a critical reflection of Braun and Clarke's (2006) conceptualisation of thematic analysis that was largely understood as prescribing steps to be followed when conducting thematic analysis in qualitative research. Though Braun and Clarke argue in their commentary that this was a mere misunderstanding, they aim through the conceptualisation of a reflexive thematic analysis to

emphasise the fluidness of thematic analysis and the importance of the researcher's "subjectivity and reflexivity" in the research and data analysis (Braun and Clarke, n.d). They articulate RTA in qualitative research as underlying the process of meaning making that is context-bound and argue that, in line with qualitative research RTA does not seek to discover a predetermined truth or meaning but rather seeks to produce an analysis that is a "product of deep and prolonged data immersion, thoughtfulness and reflection" (Braun and Clarke, 2020).

RTA articulates analytic approaches that uphold qualitative research principles, acknowledging the researcher's subjectivity in the process of data analysis (Braun and Clarke, 2020). Within RTA, there are no fixed coding terms as coding is open and organic and does not make use of formal coding frameworks. However, themes are understood as final outcomes of the data coding and iterative theme development (Braun and Clarke, 2020).

Braun and Clarke (2020) argue that central to the implementation of RTA is knowing the theoretical grounding and transparency of the research in which the researcher is fully aware of the "philosophical sensibility and theoretical assumptions informing their use of TA" (Braun and Clarke, 2020) and these are applied consistently and clearly throughout the analytic process.

As noted earlier, within RTA, the themes are outcomes of the coding and iterative theme development processes. As such themes are not in the data readily available to be identified and they do not passively emerge from the data or the data coding process. However, themes are conceptualised as "creative and interpretive stories about the data" and they emerge at the intersection of the researcher's "theoretical assumptions" and the data itself. A key characteristic of RTA is not treating it as a prescribed procedure with strict steps or guidelines to be followed but rather it is about realising the researcher's reflections and thoughtful engagement with the data collected as well as the researcher's "reflexive and thoughtful engagement" with the process of analysing the data (Braun and Clarke, 2020).

In order to establish the relevance of RTA in this study, Braun and Clarkes revised 6 phases for data engagement, coding and theme development were used only as a guide, realising that these are not rigid steps but are informed by the researcher's reflexivity.

Phase 1: Data familiarisation and writing familiarisation notes.

A research assistant translated and transcribed the data verbatim. Following this process, the researcher read through the data, and reflected on the collected photos a few times; and made notes that assisted with an understanding and familiarity with the data. This step was critical in

ensuring that the researcher was familiar with the data before engaging in other phases of the analytic process.

Phase 2: Systematic data coding

In this phase, the researcher reflected on the transcribed data and began to create meaningful codes as they emanated from the data. Only the researcher coded and reviewed the data codes. The transcribed focus group discussions were grouped into meaningful codes.

Phase 3: Generating initial themes from the coded and collated data

Following the process of data coding, the researcher began to generate themes as they emanated from the coded data. The researcher studied the coded data and searched for broader themes represented in the data. Through this process the data moved from the finer coded information to broader themes that created meaning across the different codes.

Phase 4: Developing and reviewing themes

During this phase, the researcher began the process of developing and reviewing the broad initial themes that were identified in the previous phase. This allowed for the researcher to critically reflect on the initially generated themes to ensure that they made sense and were supported by the evidence gathered and presented in the transcripts and through the photos. In this phase, all relevant themes were reflected on and merged with similar ones while other themes were split. This was a back and forth reflection and review of the themes to ensure that developed themes represented the data collected.

Phase 5: Refining, defining and naming themes

In this step the themes were further refined in a manner that connects them to the broader research questions of the study considering how they relate to each other in creating meaning and knowledge. Following the vigorous process of refining and defining the themes, the themes were named to capture the essence of the discussion and what each theme represents in the data.

Phase 6: Writing the report

Following a vigorous consideration and application of the different phases described above, the last phase was to write up the analysis using the themes identified and refined in the preceding phases.

As noted earlier these six phases are not meant to be followed as a step-by-step prescription but rather as a guide to conducting RTA. This analytic approach centres around the researcher's immersion in the data, reading through it, taking time to critically reflect on it and ask questions as they arise from the data and the processes. All these are key in reflexive thematic analysis. Likewise, the researcher ensured that the themes developed and used for this analysis were generated through a reflexive process in which the coding and theme development process were thoroughly reflected on to produce an outcome which is "themes" which were developed through the coding and theme development process. No predetermined themes were generated prior to critically engaging the data to develop the themes used for presenting and analysing the data in the chapters that follow.

4.13 Rigour and validity

The study sought to ensure rigour and validity of the research findings through adopting the triangulation method. The triangulation method refers to the verification of the data against multiple data sources (Honorene, 2017). The data collected from one source was constantly reviewed against other sources in order to ascertain the validity and reliability of the data. The researcher continuously engaged with the data collected in order to understand it and search for any inconsistencies in the data. The data collected from the different participants was checked against each other to establish linkages and disparities. However, the aim of triangulation is not to exclude any disparities identified but to focus on what these mean for the study and understanding the phenomenon under study. The data collected through photos and the focus groups discussions was not only triangulated against each other but also considered existing literature on the subject studied. Like many methods, the triangulation method also has its disadvantages, among these Hammersley and Atkinson (1995) note that a researcher may use their own judgment in deciding what is correct and incorrect in the data and these may be inaccurate. In order to avoid this, the researcher guarded against disregarding information and considered the context and other factors that contributed to the conception of these narratives by the participants.

4.14 Limitations of the study

The study had notably three main limitations. Firstly, similar to many qualitative research studies, the one key limitation of the study is that its findings are not generalizable. The sample of the study was not selected with the aim of providing a statistically representative sample but rather to select participants that had knowledge of the subject under study or could make a valid

contribution to the discussions. Even though the population was not representative of the general population studied, this study still achieved its aim and that was to explore the local interpretation and reconstruction of the key COVID-19 prevention messages.

Secondly, the study was conceptualised during a period where the COVID-19 pandemic was still new and no vaccines had been developed and prevention measures were only limited to social distancing, hand washing/sanitising and the use of facemask. However, during the data collection, vaccines were already an added prevention measure but exploring vaccine messaging was beyond the scope of the study. Nonetheless, the basic prevention measures remained in place and advocated for even with the availability of vaccines and this is still the case.

Thirdly, the data collection method of the study relied largely on phones as participants had to take photos in their communities and share these on WhatsApp mainly for storage purposes. The exclusion of participants without smartphones, may have limited participation and side-lined the opinions and perceptions of the broader community. The population representation was largely youthful and the perceptions of the older generations are not captured in this study as many did not own smartphones and therefore excluded from participating. While a more inclusive approach would have been important in ensuring diversity of the sample, efforts were made to ensure some level of representation across the different age groups though this was not fully achieved, but this study was by no means aimed to be statically representative of the general population in the study sites.

Logistical constraints, particularly those linked to COVID-19 lockdown restrictions, limited mobility, curtailed opportunities for extended engagement, and necessitated adjustments to facilitation and group activities. The technological requirements of photovoice also posed barriers for some participants, impacting inclusivity.

The researcher's positionality further shaped the process and interpretation of findings. As an African woman, her professional experience, theoretical orientation, and personal assumptions informed both interactions with participants and the interpretive lens applied to the data. Reflexive practices, including journaling and peer debriefing, were used to mitigate these influences; however, their presence is acknowledged as part of the research context. Recognising these limitations enhances the transparency and trustworthiness of the study's conclusions**.**

4.15 Ethical consideration

In order to ensure that the ethical guidelines in conducting social research were maintained, measures were taken to protect the study participants. Ethical clearance was obtained from the Humanities and social sciences research ethics committee (HSSREC), ethics approval number HSSREC/00002318/2021 (see appendix 1). In addition to this, informed consent was obtained from all the study participants before the start of the interview (see appendix 2 - the consent form was also translated to IsiZulu). During this process, the aims and objectives of the study were explained to the participants to ensure that they understood what the study entailed. Issues of voluntary participation, confidentiality and anonymity were discussed with the participants. In ensuring that these were guaranteed, participants names were not used in the analysis and throughout this thesis. Instead, pseudonyms are used where the need arises. Furthermore, the interviews were recorded and verbal and written consent was obtained from participants to do so. Participants received a copy of the informed consent for their own reference, which included contact details they could use should they require further information about the study.

Chapter 5: Data presentation

5.1 Introduction

This study explored the local interpretation, adaptation and reconstruction of the dominant COVID-19 prevention messages that included regular hand washing and sanitising, the use of face masks and social distancing. This chapter presents the findings in relation to the study's research questions of exploring how residents of rural, informal, and township communities understood, interpreted, and reconstructed COVID-19 prevention messages during the lockdown period, and how these insights might inform a people's science approach to future disease prevention messaging. As noted in the preceding chapter, data for this study was collected in two-phases. The first phase was between March and April 2021 during the adjusted level 2 lockdown[1]. Whereas, the second phase was during the adjusted level 1 lockdown, between October and November 2021. These time periods were important in observing changes over time in how local communities were interpreting and adapting the COVID-19 prevention communication in order to formulate localised messages that are informed by their cultural and contextual settings. This chapter presents findings from the first phase of data collection which took place between March and April 2021.

Data was collected in three stages which included (1) the introductory group sessions in which the study and the photovoice data collection method was introduced and discussed; (2) the photovoice data collection in which participants went back to their communities to capture photos that represented their interpretation, reflections and interpretations of the COVID-19 prevention messages and (3) follow-up focus group discussions which were held a week after completion of the photo voice data collection phase with the aim of discussing in detail the photos that were collected. This chapter presents data and observations from all the data collection stages for phase 1 of the study. This is followed by findings from the focus group discussions which were centred around the photos that were collected and also included broader discussions on the meaning and interpretation of the dominant COVID-19 prevention messages. The photos were coded into broad themes reflecting each of the three prevention messages and this includes a brief description of each of these photos.

[1] Adjusted level 2 lockdown data collection took place between March and April 2021

5.2 Participant demographics

Since data was collected in various phases, participants provided consent to participate in all stages which meant that those attending the introductory sessions were expected to also attend the follow-up focus group discussions on the photos they had shared as part of the photo voice data collection. However, due to a number of reasons including competing commitments, time constraints and other logistical challenges in which participants were out of the town during the scheduled focus group discussions, it was not always possible to have the same number of participants who attended the initial session to also be available on the second session. This meant that in a number of instances the number of participants attending the focus group discussions was slightly lower than those attending the introductory meetings. Participants not attending the focus group discussion were not replaced as the study required the same participants to be retained for the purposes of continuity and to facilitate the discussion with the participants that have gone through all the stages of data collection.

A total of 25 participants attended the introductory sessions across the three communities where data was collected. Of these participants 14 were males and 11 were females with thea median age of 31 years. Of the 25 participants recruited, 19 participants successfully shared photos on their respective community's WhatsApp group channel, those who did not share mentioned issues with connectivity and damages to their cameras. Participants were provided with data for the purposes of sharing photos but expected to use their phones to capture the photos. As such none of the challenges reported in relation to the inability to share photos related to lack of data bundles. Of those that shared photos, 17 participants from the 3 communities attended the focus group discussions, 9 females and 8 males with an overall median age of 31 years. Only 2 of the 25 recruited participants attended the focus group discussion but had not shared photos on the WhatsApp groups. Most of the participants were either unemployed or students. Table 5.1 presents participants who took part in the study by site.

Study site	**Stage 1: Number of participants who attended the introductory session** **N = 25**	**Stage 2: Number of participants who shared photos on the WhatsApp group** **N=19**	**Stage 3: Number of participants who attended the FGD** **N = 17**

	Males	Females	Males	Females	Males	Females
Umbumbulu	4	4	3	3	2	3
Cato Crest	5	3	4	2	4	2
Umlazi	5	4	3	4	2	4

Table 5.1 participant demographics

5.3 Visual presentation

This section presents visual data from the photo voice data collected by participants. The images were collected by participants from 3 study communities, Umlazi, Umbumbulu and Cato Crest. The objective of this exercise was to allow participants to visually document their unique interpretations of the COVID-19 prevention messages which included hand hygiene, the use of facial masks and social distancing. A total of 57 images were shared from all communities, with majority (36) of the images shared from Cato Crest, Umlazi and Umbumbulu shared 11 and 10 images respectively. Most of the images from Cato Crest were duplicated and for the purposes of this study we selected the best version of each of the duplicated images. Furthermore, images that explicitly showed the faces of people were excluded as attempts to blur the faces diluted the meaning captured on each of the images. All images were carefully reviewed to determine the broad categories they fit into. The images captured the interpretations and adaptations of the dominant prevention messages and are as such presented in the same manner in this chapter. The selected images from each of the communities portray the participants' interpretations of the hand washing, face masks use and social distancing messages.

The images shared provide insights into the diverse perspectives of individuals and how they understood and incorporated the prevention messages into their daily lives. Each image captures the nuanced ways in which participants have embraced, adapted, and interpreted the dominant COVID-19 prevention messages. The descriptions provided below emerged from the discussions with the participants and also include direct extracts from the focus group discussions. The descriptions provided will be further explored in the discussion chapter.

5.3.1 Visual presentation: hand washing and sanitising

The section presents photographs that captured the nuanced perspectives of participants regarding the COVID-19 preventive practice of hand washing and sanitising. These visual narratives show how participants interpreted messages around hand hygiene. These images not only serve as a visual representation of the participants' encounters but also provide a unique lens through which to examine the multifaceted dimensions of their understanding of hand washing as an important measure in the fight against COVID-19. There were only 2 images that were shared from all study communities on the hand washing and sanitising category.

Photos relating to hand washing and sanitising	
Photo	**Description of the photo**
	1. Image taken from a clothing store in a mall in Umlazi showing that customers should sanitise their hands upon entry. 2. The image presents reminders set in formal shopping centres, in this image, customers are expected to sanitise themselves with the provided hand sanitiser. However, users are not always motivated to adhere to the hand sanitising requirements because of various reasons. 3. The participant had this to say about the image: "*It is irritating that when I enter every store I have to sanitise. Sanitising every now and then irritates my sinuses*" (Umlazi participant 3).

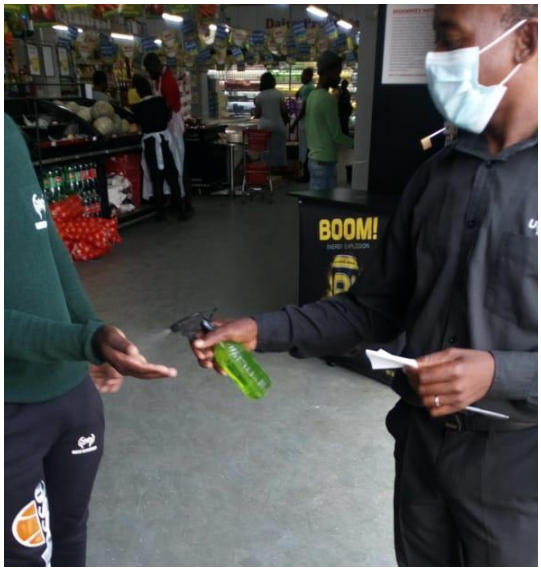
	1. A photo taken in a shop in eThekwini of a store employee sanitising customers before they enter. 2. Hand sanitising in this store is compulsory if customers refuse to sanitise then they are denied entry 2. The participant said the following about this image: "*I think that person has to allow customers to see what is inside that sanitizer. I say this because I have seen how other people's skin reacts to different sanitizers. You then find people's hands peeling off because of the chemicals used in that sanitizer…I feel like this is some infringement of human rights*" (Cato Crest participant 2).

Table 5.2: Visual presentation of hand hygiene images

5.3.2 Visual presentation: the use and absence of face masks

During the COVID-19 pandemic, the use of face masks was among the key and widely adopted prevention strategies. The following set of images presents the diverse perspectives of individuals and how they have embraced and interpreted the use of face masks as a preventative strategy. These images portray the various ways in which people incorporate face masks into their daily routines.

Photos relating to the use of face masks	
Photo	**Description of the photo**

	1. An image provided by the municipality and sticked on public transport stating “No Mask, No Entry” 2. This image alerts commuters that they need to wear masks to enter the taxi. 3. Quotation from the participant: “*There are people who do not follow Covid-19 precautions, they board a taxi without a mask*” (Umlazi participant 1)
	1. Image taken in a local bus of community members going to a funeral with some people who have a face mask on and some not. 2. Wearing a mask at home depends largely on the individual as some people are exhausted with compulsory mask wearing. 3. Participant quotation: “*we take them [masks] out at home, masks make it hard for people to breathe clean and fresh air and people develop skin rash because of wearing masks for longer hours.*” (Umlazi participant 3).

	1. Image taken at a local tavern of people drinking alcohol and smoking. 2. The image shows how people enjoy spending their time out by enjoying drinks together. 3. Participant quotation on the image: "*We missed each other since the hard lockdown so it was good to go out with friends and obviously how would you drink and smoke with a mask on, hai.*" (Umbumbulu participant 1).
	1. An image of men who were resting after digging a grave hole and they are all not wearing face masks. 2. The participant had the following to say about the image: "*it is very hard to do the hard labour while wearing a mask. If you are working, you need to be able to breathe in and out freely so a facial mask does limit the person's ability to breathe.*" (Umbumbulu participant 5)

	1. An image showing people eating and drinking. 2. While there is knowledge about the use of face masks, the image shows that adherence is not always possible when you have to eat from the same plate. 3. Participant quotation: "*Just like entering a restaurant with your hands sanitized and you are wearing a mask, then you remove a mask as you are eating. It is impossible to follow the Covid-19 protocols to the T*" (Cato Crest participant 6).
	1. Image of 2 gentlemen taken in eThekwini CBD with one wearing the mask just below the chin. 2. Masks were compulsory and therefore important to have it handy as one could easily lift it up when they get to a place where it is absolutely necessary to have one on. 3. Participant quotation: "*masks…make it hard to breathe. So, if an opportunity is presenting itself for you to remove a mask you remove it. This is because it becomes hot under a mask making it hard to breathe.*" (Cato Crest participant 5)

	1. Image taken at a local library showing the absence of use of face masks in public formal settings. 2. In the image the male participant has the mask under the chin whereas the lady does not have it on. 3. The participant said the following about the image: "*masks are foreign to us, so we ended up taking them off during our stay at the library but a lady who was working at the library told us to put them on*." (Cato Crest participant 4).

Table 5.3: Visual presentation of face mask images

5.3.3 Visual presentation: social distancing

The images below capture the diverse ways in which participants encountered and comprehended the practice of social distancing as an important measure to curb the spread of COVID-19. These images portray the different ways in which individuals from varying study communities adapted to the message around maintaining physical distance. Furthermore, the images shed light on the multifaceted dimensions of social distancing within localised contexts.

Photos relating to social distancing	
Photo	**Description of the photo**

	1. Image taken in an elevator showing the allowed maximum number of people in an elevator at a time. 2. The notice is placed outside the elevator for people to see even before entering. 3. The participant had the following to say about the image: *"We are told that only two people should use this lift at a time but in all honesty why should we queue for an elevator when we can just all go in at the same time and avoid unnecessary delays"* (Umlazi participant 2).
	1. An image taken at church by 2 women who both have face masks on and hugging from the back. 2. It is difficult to adhere to all COVID-19 prevention messages at the same time, the image reflects some exceptions, no social distancing but the face masks are properly worn. 3. Participant quotation: "*Is it not enough to have the mask on at least the risk of COVID is reduced but we can't not hug each other it just shows being unkind*" (Umlazi participant 4)

	1. Image taken at a funeral in Umbumbulu showing a large number of people under the tent. 2. Funeral was well attended by the community, as community members were shocked by the deceased's passing. 3. The participant had the following to say about the image: "*the funeral was attended by many people and it was overcrowded. We were all sitting inside a tent singing and there were at least four or five people who were wearing masks and there was no social distancing*" (Umbumbulu participant 3).
	1. Image taken at a family gathering with no masks and no social distancing 2. COVID-19 prevention precautions were not a priority when meeting up with family. 3. Participant quotation: "*when we are at family gatherings, we tend to forget about Covid-19 and its precautions. The only thing that is important at that time is hugging and kissing your family whom you have not seen for years in some cases*" (Umbumbulu participant 4)

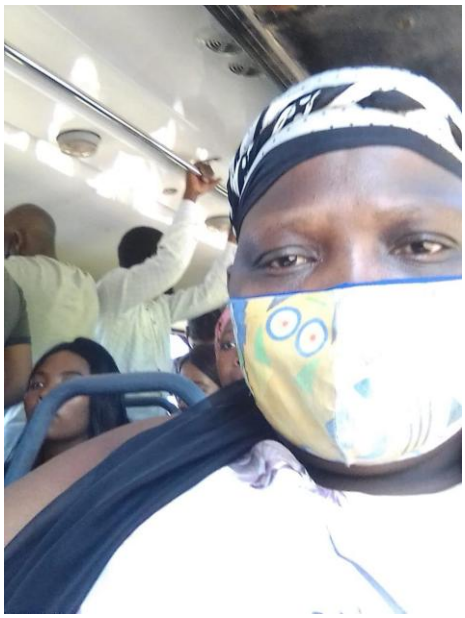
	1. Image taken at a community meeting, masks and social distancing maintained. 2. Organisers of the meeting ensured that chairs are well organised prior to the meeting ensuring that distance is allocated between seats. 3. Participant quotation “some spaces allow people to social distance like in this meeting because the hall was big, sometimes it is just impossible” (Cato Crest participant 4)
	1. Image taken in a bus going to the gravesite for a burial with some people standing. 2. In some situations it is not possible to social distance as there are no resources to accommodate the costs of social distancing. 3. Participants quotation: “*it is not like we are rebels but do you choose not to bury your person because the bus is full? we will social distance when conditions allow*” (Cato Crest participant 2)

Table 5.4: Visual presentation of social distancing images

The images presented in this section highlight the differences in how communities made meaning of the COVID-19 prevention measures. While most of the photos were collected from Cato Crest an informal settlement, the broader categories captured in this section do not present any significant differences in the message interpretations of individuals within the varying study communities (informal, rural and township). The discourses depicted in the images does not

reveal notable variations among the different communities. Despite the differences in community set-ups, there are considerable commonalities in how communities have encountered and documented each of the prevention messages. As noted above, only 2 images depicting hand washing were collected from Umlazi and Cato Crest presenting differences in how hand washing was interpreted and adapted in these communities as opposed to other prevention measures that received a number of images. Umbumbulu shared no images related to hand washing which raises an area of interest in understanding what this meant within a rural community as opposed to the more urban and populous communities of Umlazi and Cato Crest. A detailed interpretation of these results will be included in the discussion chapter. This next section of this chapter delves into key categories that further emerged from the focus group discussions that preceded the sharing of the images in the WhatsApp group discussions.

5.4 Making sense of the COVID-19 prevention messages

COVID-19 prevention was understood and applied differently by participants and the differences were largely not informed by age, gender and location (township, rural and informal settlement). There were noted differences in the understanding of COVID-19 and the prevention options but most of the participants shared similar sentiments on what they perceived the prescribed prevention methods to mean in their contexts and their ability to translate these into actionable pieces of information that they could adopt and form contextualised communication discourses. The varying cultural and social contexts were key in the interpretation and adaptation of these prevention options. This next section presents the rich discussions captured during the focus group discussions. The FGDs in each of the 3 study sites started with an in-depth discussion of the images that were shared in the respective community's WhatsApp group channels. When sharing images, participants also included a brief description of the image. During the focus group discussions these were used to initiate discussion and were elaborated on and an FGD guide (appendix 3) was used to facilitate further discussion on the understanding, interpretation and adaptation of the dominant COVID-19 prevention messages.

This data was collected during the adjusted level 2 lockdown and the impact of this time frame on the results presented here will be discussed in Chapter 7: Discussion and conclusion. This specific section discusses key categories emanating from the FGD (1) doubts about the existence of COVID-19, (2) perceived health risks associated with the prevention measures, (3) localised interpretation of the prevention messages and associated behavioural responses, (4) the role of

culture on COVID-19 prevention, and (5) indecisive COVID-19 prevention communication. Each of these themes is discussed in detail below.

5.5 COVID-19 does not exist

Participants had different experiences with COVID-19 and this influenced their perceptions of the disease and by default its prevention messages. Some participants with representation from all study sites (rural, township and informal dwellings) believed that COVID-19 does not exist and is largely a strategy by the government and the dominant Western countries to reduce populations in Africa. These participants believed that COVID-19 was merely a curated disease to distract the country from focusing on pressing national challenges such as unemployment, the weakening economy and provision of services.

> *I will not pretend, I don't believe there is anything called COVID-19, someone just sat somewhere and decided there is now COVID-19* (Umlazi, participant 1).

> *We have serious problems here, like we are not working as the youth, we have been promised jobs for many years- now instead of focussing on that, our attention is changed to this COVID thing that we have not even seen except hearing about it* (Cato Crest, participant 1).

The explanations provided about the emergence of the disease and how it reached African countries did not make sense to them but instead fuelled beliefs around its non-existence. This disbelief largely translated into lack of motivation to adopt any of the recommended prevention measures. These perceptions were influenced by a number of factors, including lack of exposure to any active cases of COVID-19 and the othering of the diseases which means that the disease was affecting prominent communities and not everyone. There were also perceptions that the recommended prevention messages had more detrimental health effects as opposed to what communities are meant to believe are the dangers of COVID-19.

5.5.1 Lack of exposure to COVID-19

It was evident amongst the participants that did not believe in the existence of COVID-19 that most had not been previously exposed to the virus either first hand or through secondary contacts, i.e. knowing someone who had contracted or died from COVID-19. This lack of exposure informed their formulation of perceptions and beliefs about the existence of the virus with the default belief being that it does not exist.

You will find people not wearing masks and not observing social distancing, but I have not heard a single Covid-19 case from the people we usually go to the Department of labour with (Cato Crest participant 2)

The idea that participants were exposed to what was described as high-risk settings, such as overcrowded spaces with no social distancing and use of face masks, yet this translated to no known COVID-19 infections caused doubts about the existence of the COVID-19 virus. The participants also noted that the emergence of the COVID-19 and subsequently the national lockdown disrupted their daily lives leading to loss of jobs and this disruption was noted as their main concern and not the detrimental effects of COVID-19 if one did not adhere to the recommended preventative measures. During this lockdown period people were going to Labour departments to claim unemployment funds and this was met with very long queues and very minimal to no adherence to the prevention measures but there were still no cases reported that were known to these participants.

I take it as something that needs to be done, not something that works as our saving grace. I do not think it is working. There are people who work at places like the Department of Labour who do not care about social distancing. This place is very busy due to the fact many people lost their jobs due to Covid-19 and they are now going to that department to claim their UIF, so why are they not contracting COVID if it's a thing? (Cato Crest participant 1).

Minimal exposure to COVID-19 infected people was central in the formulation of perceptions that the virus is non-existent. Though some within the group expressed awareness of the virus and knew people who had died from the virus, the growing perception among this group was the belief that all deaths recorded during the COVID-19 lockdown period were falsely recorded as being related to COVID-19. One participant noted that this association was a bad reflection, as during this time a lot of things were happening affecting people leading to their deaths but these could not solely be attributed to COVID-19.

We cannot ever say for sure that someone who died was killed by Corona, because there is a tendency of naming every death as Covid-19 related death. Corona has affected the whole community financially, because most people in our community lost their jobs. There are also people who died in the taxi industry because of Corona, but they were not killed by contracting this virus. Competition in the taxi industry was rife during that time, most

people stayed home and many taxis competed for fewer customers. (Umlazi participant 5)

Given that participants had no known positive cases and the authorities alleged tendency of associating all deaths with COVID-19 during the COVID-19 lockdown period, the participants' perceptions that the virus does not exist were solidified. However, added to these, there were some participants who believed that the virus only exists in prominent communities thereby associating it with others and not them.

5.5.2 COVID-19 infects them not us

The study was conducted in three communities which included a township, rural and informal settlement. While these communities were all different to a greater extent in terms of demographic set-up and socio-economic status, a common feature was that none of these were affluent communities. These communities had socio-economic challenges including varying rates of unemployment and poverty. In light of this, there were similar trends across all three communities in which some participants tended to associate the COVID-19 virus with rich people and communities. This was largely noted in Umlazi, a township setting, which also has some areas that live prominent people. Some participants in this community believed that COVID-19 generally affected people in rich areas and that those in less affluent communities like theirs were somehow sparred from the virus.

More specifically, these participants held the view that COVID-19 was infecting individuals that they categorised as the "upper class" and this largely included those that are educated and of working class. Participants also had experiences and beliefs that COVID-19 was largely fatal in certain high-income communities than their communities which was puzzling for them given that these "high-income communities"' were better placed and more adherent to the prevention methods. Participants mentioned the following:

Educated people are always wearing a mask unlike homeless people and drug addicts. However, educated people are killed by Covid-19 the most, compared to drug addicts and homeless people who do not bother themselves by wearing a mask. The reason behind this reality is unknown to us; maybe the government might know something we do not know about this. I have never heard that a homeless person was killed by Covid-19 instead I hear about doctors, teachers and police (Umlazi participant 3).

A participant from Umbumbulu echoed similar sentiments with regards to COVID-19 infections being greatest among certain population groups *"I have never heard that a drug addict has contracted Covid-19"* (Umbumbulu participant 3). In addition to this, some participants attempted to explain why COVID-19 infects certain people or communities and argued that the set-up of the COVID-19 communication is directed at these communities and the recommended preventative measures also suit the lifestyle of these people as opposed to poor communities. In other words, it was argued that it was easy for rich people to afford face masks, good quality hand sanitisers and generally their living spaces allow for ease of social distancing as opposed to other communities that are crowded and unable to afford masks and sanitisers. The prevention measures that were recommended by the government and enforced in communities were argued to be convenient and suitable for people of higher social and economic status and excluded poor communities that are highly congested such as Cato Crest (informal settlement) and Umlazi (township). The incompatibility of these prevention strategies to these communities was interpreted as being irrelevant for them and by consequence COVID-19 not being for them.

5.6 Perceived health risks caused by the prevention measures

During the pandemic, there was a pervasive misconception among some participants that adopting the COVID-19 prevention messages, particularly using face masks and hand sanitisers was causing illness rather than preventing it. This belief stemmed from various sources, including misinformation circulated on social media platforms that included images of people who had hand-burns due to what they referred as "fake" sanitisers, not containing the recommended alcohol levels and also assumed to have used toxic ingredients detrimental to the health of others. In addition to this, individuals within the different communities engaged in discussions suggesting that some of the recommended prevention methods did more harm than good and could have had adverse health effects. In these discussions, they shared their experiences of using these prevention measures and how these induced illnesses which was very concerning for them. In this context, exposure to certain negative anecdotes and experiences influenced participants' perceptions of the various prevention methods and their willingness to adopt these.

In a give or take situation where participants had to weigh the benefits of the prevention methods against their immediate health needs, there was more preference among some participants to maintain their current state of health without introducing any foreign measures that will undermine their overall health. Since hand sanitising was compulsory during the adjusted level 2 lockdown, stores and other formal establishments had strict adherence rules requiring all individuals entering

the stores to sanitise. In these cases, there were designated sanitary stations next to the door or staff members responsible for sanitising everyone as they entered (this is reflected in the images above). In these instances, there were concerns among participants that the contents of the sanitisers were not always safe as these caused people to develop skin rashes.

> *If you go to a certain store and find someone that is responsible for sanitizing customers, that person has to allow customers to see what is inside that sanitizer. I say this because I have seen how other people's skin reacts to different sanitizers. You then find people's hands peeling off because of the chemicals used in that sanitizer* (Cato Crest, participant 2)

Since participants were a common factor in all the stores, there were concerns among participants that they suffer the most when it comes to their skin health as they are exposed to different sanitisers in each store they went to. One participant shared their concern "*Hand sanitizer irritates skin to a point where your skin peels off. This is because different stores use different chemicals in their sanitizers*" (Umlazi, participant 1). Though participants shared these concerns but could not completely avoid going to the shops, they had recommendations that could have been adopted by the shop personnel and that was to allow them to use their own sanitisers to minimise health risks associated with using different ones and suffering from different skin reactions.

> *If you know that some hand sanitizers are harsh in your skin, it is better to use your own sanitizer instead of using the one that is provided by the store. But make sure that they see you spraying or pouring a portion of hand sanitizer in your hand before entering the store* (Cato Crest, participant 4)

Hand sanitisers were not the only concern, participants also raised health risks associated with the use of face masks for long periods. The discussions around this topic were centered around using face masks for extended periods and how these hindered a good and healthy flow of clean air leading to various infections as discussed in the group.

> *masks make it hard for people to breathe clean and fresh air and people develop skin rash because of wearing masks for longer hours* (Umlazi, participant 1).

> *Some kids are dealing with a lot because of wearing a mask. For instance, my child, within a week his face had a rash due to wearing a mask. Some kids react to wearing a mask by developing things like rash on their skin* (Umlazi, participant 6).

Compulsory adherence to the COVID-19 preventative measures was less attractive to some participants, particularly in cases where the risk did not match the benefits. Participants' immediate concerns were their health and less concerned about the new COVID-19 that seemed to compromise their health all in the name of prevention as they alluded. Notwithstanding the perceived illnesses arising from COVID-19 prevention and sharing local experiences of how these measures affected their health and that of others within their communities. There were also discussions in the group about how the COVID-19 prevention measures exacerbated existing health conditions. Dominant communication and education around COVID-19 emphasised the importance of immuno-compromised individuals to adhere to the prevention messages in order to avoid infections as these could be serious and fatal for them. In these mainstream debates the effects of prevention to individuals' existing health conditions or comorbidities were not explored. During the FGD, participants tried to unpack this and offer a different perspective to what was offered by health officials and this was largely centred on their personal experiences.

> *Some people are asthmatic therefore they cannot breathe while they are wearing a mask* (Umlazi, participant 4)

> *See I have a heart condition and I must always try to breathe well, if I use a mask I just feel sick and unable to breathe properly, so now because I don't have a choice I do it inside the sop but remove it immediately…I will die because of this mask* (Umlazi, participant 5)

The assumption here was that individuals with existing conditions faced more health risks associated with using face masks and this was seen as unfavourable. The discussion also revolved around older people with comorbidities who were also expected to adhere to the prevention measures at the cost of developing other illnesses. Overall, participants believed that the elderly were more adherent compared to younger populations even though they had the greatest risk of getting sick from doing so. This is instances where masks made it difficult for them to breathe and a common assumption among the participants was that the elderly already have respiratory issues and the masks were making this worse for them. Overall, participants' experiences and observations within their communities contributed to their perceptions of how COVID-19 prevention measures induced health risks and this led to doubts about the benefits of adopting the prevention measures as opposed to maintaining current health status and minimise the risk associated with any of the prevention measures.

The main health concerns related to the use of face masks and hand sanitisers. Social distancing was viewed as one measure that did not have any health risks and was preferred by some participants. One participant said "*I think that we should maintain social distance; yes, we can wear masks and sanitize our hands from time to time but we are still not that safe. Because COVID-19 spreads through droplets as well, so saliva droplets from an infected person to the next might spread Covid-19. So social distancing might save people from the virus more than any other precaution*" (Cato Crest, participant 2). This statement reflected on the preference for social distancing as opposed to other prevention methods. Even though there were a number of concerns over the contextual and cultural relevance of adopting the social distancing measure, it was still the only one that did not present any health-related concerns. In other words, people were unlikely to get sick just from practicing this measure as opposed to face masks that were reported to inhibit proper flow of clean air and hand sanitisers that caused sinuses and rashes.

5.7 Interpretation of the prevention messages

The interpretation of the dominant COVID-19 prevention messages was multifaceted and largely characterised by diverse perspectives within local communities. While the government and health organisations made concerted efforts to promote awareness on the adoption and effectiveness of the prevention measures including face mask use, social distancing and hand hygiene, different interpretations of these messages were arising within communities and this informed localised responses to the COVID-19 pandemic. This further altered the communication discourse within communities as they made meaning of these messages in a manner that was contextually relevant for them and applicable to their needs and settings.

While some individuals adhered to the official prevention guidelines viewing these as crucial to reduce the spread of the virus and maintain healthy livelihoods, there was scepticism amongst others about the relevance of these messages. This scepticism was not only driven by doubts in the guidelines but also by individuals' perceived ability to adhere to these measures in the context of certain structural and cultural factors. Moreover, these doubts were also embedded in the distrust of authorities responsible for setting these measures. In response to the pandemic, communities resolved to interpret these prevention messages to suit their contexts and individual preferences and needs. Consequently, the multiplicity of the COVID-19 messages interpretations have led to varying behaviours and compliance levels. Understanding the complexities of how people perceive, internalise, make meaning and adjust the COVID-19 prevention messages

provides valuable insights into some of the challenges to effective health communication in times of a pandemic and this was explored quite intensely during the FGDs.

Key themes explored in the interpretation of the COVID-19 prevention messages included the mandatory adherence to the messages and how this was received by participants. Variations in compliance to the prevention messages were explored with the aim of unpacking the individual and community level meaning making processes as it relates to the adoption of these measures. The study further explored how participants within their localised contexts adjusted and adapted the COVID-19 prevention messages in order to create localised messages that were relevant for both their cultural and socio-economic contexts. Results from these discussions are presented below.

5.7.1 Mandated vs conditional compliance

Adherence to the prevention measures was understood and interpreted differently by the study participants and the decision to comply was dependent on whether it was mandated or conditional. In the context of this study mandated compliance refers to the state in which adhering to the prevention measures was compulsory and enforced in various institutions or settings. This included entry to specific offices that required everyone accessing the building to be fully compliant and non-compliance meant that access would be denied. This was evident in some government buildings and formal shops. Meanwhile, conditional compliance refers to the ability of individuals to self-select prevention measures they are comfortable and able to observe at a particular time. This compliance offered more flexibility as users had the option to adjust the prevention measures to suit their needs. This was reflected in discussions around incorrect use of facemasks, in which users would not cover the mouth and nose fully in order to allow themselves to breathe freely. Conditional compliance was more prominent in informal settings or areas where the prevention measures were not strictly enforced and so participants were able to flout some measures with minimal or no consequences. In this study, participants shared the pros and cons of both types of compliance.

Mandatory compliance was received by some as unfair and stripped their right to choose what they want to do, thereby undermining their independence as fully functional and mentally able individuals to make sound health decisions for themselves. The photos shared as part of the photovoice data collection phase portrayed some compliance with the prevention measures but the back-end narratives (as discussed in the FGD) were the dissatisfactory reactions to being told what to do.

> *Everyone is forced to use hand sanitizers inside the store, however I feel like this is some infringement of human rights* (Cato Crest, participant 2).

The photos showed various messages around COVID-19 prevention in public spaces and the reinforcement of some of these measures in more formal settings. This was enforced by either security guards or other designated personnel ensuring that everyone entering the store or space was sanitised, wearing the mask correctly and that the social distancing floor markers were observed. In line with this, most participants stated that they did not adhere to the prevention measures voluntarily, and offered choice they would have preferred to choose the measures that align with their personal preferences, health needs and beliefs.

While most formal settings tried to nudge individuals to adhere to the prevention measures by using floor markers to make it salient for people to social distance; and posters mandating mask use and sanitisation; these messages were not always well received. However, there were participants that appreciated the efforts by formal shops and companies to enforce adherence to the prevention measures. The older populations in the study believed that this enforcement was necessary to keep them safe from infection given that they were at increased risk of infection. Mandatory compliance for them meant that people would be more adherent and they did not have to take it upon themselves to remind others to comply as this likely caused social conflicts.

The government's approach to enforcing compliance in the early days of lockdown was also said to have changed people's perceptions on what they were required to do and the level of seriousness in practicing the prevention measures. When the initial lockdown was announced in March 2020, the government deployed the police and army to enforce compliance nationally with priority given to large townships and informal settlements. Participants reported that it was almost impossible to walk to the shops or leave the house for any reason without a mask that is properly worn. Social engagements were completely banned with the exception of funerals but that also had its restrictions. While the participants deemed these efforts necessary to curb the spread of infections at that point, they also believed that this created a sense of lack of ownership or accountability. This means that people's perceptions about adhering to prevention measures were centred around the idea that someone will be around to ensure that the measures are correctly adhered to at all times. One participant noted the following about this:

> *When Covid-19 was new in South Africa, the government made sure that there was a strict system in place to guard people. The army and police were there to make sure that people followed Covid-19 precautions. There were Police even on Freeway to make sure*

that people do follow the Covid-19 precautions. Why did the Government stop guarding people, knowing very well how people respond to such instances? (Umlazi, Participant 1).

Another participant also noted that people were less likely to adhere because there were no longer officials to enforce these measures, "*this is because there is no law enforcement to make sure that people follow the Covid-19 precautions"* (Umlazi, participant 3). It was also reported that people tended to feel obligated to adhere when there was enforcement and this was not a personal decision, motivations for adherence differed and this is noted in the quote below:

People have the tendency of not respecting the law and respect it only if there is a situation that forces you to abide by the law. If you are alone or with people you have known for a longer period of time you become comfortable, compared to when you are going to the store where there are rules to be followed. Inside a store you are forced to follow rules placed by the store manager in order to get what you wanted from that specific store in the first place. Then, when you leave the store you are free to live your life (Umbumbulu participant 1).

Compliance was higher in areas where there were dedicated staff to reinforce the prevention measures. Participants also concurred that they were compliant when mandated but if they could achieve what they wanted without being compliant, then that was the most preferred. This was evident in public transports, particularly taxis. While most taxis had notices (as shown in the photos above) promoting mask use when entering, taxi drivers did not have the appetite to enforce these at the expense of losing potential commuters especially following the lockdown period that saw loss of business in most industries. The municipality provided posters for taxis in order to ensure compliance in public transport but this did not necessarily translate to increased awareness and compliance among commuters as well as taxi drivers.

Very few of the participants were motivated to adopt the prevention measures as recommended voluntarily; this was mainly for participants that had pre-existing health conditions that made them vulnerable to COVID-19 infection. The one participant noted that he was diabetic and was compliant to all the measures as he needed to protect himself from getting sick of COVID-19.

"I hear everyone saying this and that about masks and distancing, I personally do all those things because they have been telling us that if you have sugar diabetes COVID-19 will kill you very quickly. So, I have no choice but to keep myself safe" (Umlazi participant 5, April 2021).

Participants stated that older populations were more likely to adhere to the prevention measures than young people who typically practiced conditional compliance. This was noted in discussions around population groups that were more compliant. A participant shared that:

> *Young people do not follow the Covid-19 precautions. Older people are better, this is because they know that they are at risk of contracting the virus and they are scared to die. I have reached this conclusion by comparing two occasions that involve young and old people. In a line (queue) for social grants for pensioners, you will find that the recipients are wearing masks. But in a line (queue) where (young) people are waiting for a R350 (unemployment) grant, you will also notice that most of them are not wearing a mask* (Umlazi participant 6, April 2022).

In addition to age being a factor on individuals' compliance, there were also perceptions that children could not clearly make an informed decision on complying to all the prevention measures. Cognitive levels of children were noted as one of the factors that led to poor adherence with debates centred around the unfairness of the government and policy makers to expect children to bear the burden of restricted movement and interaction. One participant mentioned the following with regards to children's behaviours and why it is difficult for them to strictly adhere to the prevention measures.

> *They are kids, they tend to be over excited when they are playing with others. Even if you force them to wear face masks when they are going to play with others, they will remove them as soon as they leave the house* (Umbumbulu participant 6).

5.7.2 Readjusting for suitability

In light of the preferred conditional compliance, there were inconsistencies in the adoption of the prevention messages and participants were readjusting these for their own suitability. In other words, strictly adhering to these measures was not favoured by many, as such people were drawing bits and pieces of the prevention messaging that would work for them and adopt it with some minor alterations that suited their contexts at any given moment. This was evident in a number of photos that were captured, including people wearing face masks just to cover the mouth or the chin when talking to others. This is illustrated in a number of photos captured by participants that portrayed how they readjusted the measures to suit them.


In the images above, participants were portraying how different settings in their lives necessitated an adjustment in the prevention measures. Social gatherings and meeting up with friends and loved ones represented an opportunity to freely engage with others. As such, participants noted that it was in their nature to embrace these moments and the COVID-19 restrictions were not a factor in how they behaved. As illustrated in the images, masks are not worn correctly and in order to capture a good photo, masks were removed and worn below the chin. Participants maintained that readjusting the mask was not denial to adhere but an indication that it is impossible to fully comply and believed that the messaging around prevention should have considered such situations or circumstances.

Participants believed that full compliance was impossible and that communication about the adoption of the prevention measures was not explicit about conditions for compliance. By this, participants referred to the different interpretations of the prevention messages. It was not clear whether these measures should all be applied at once or whether adopting one over the other was sufficient. This is seen on the image below, showing two women fully masked but not maintaining social distance because part of fellowship meant sharing a hug with another person. This also included personal relationships that still needed to be maintained even in the context of COVID-19.


While participants reported on a number of efforts made to follow the prevention measures, what was common across many, was that their settings made it difficult. This is noted in many examples around the church services. It is important to note that the study was conducted after the Easter weekend which is a largely celebrated holiday in the Christian calendar and most reference was made about churches. Some participants who were at church shared their observations as they reflected on the images that were shared:

> *In my church, they are trying to follow the Covid-19 precautions, they are doing this by making sure that the chairs are far apart from each other. There is also a board outside that is written "no mask no entry". This works before people come inside the church venue, once people come in they put chairs together and sit very close to their friends. Also, people take off their face masks because they feel hot under the mask. The pastor also removed his because people cannot hear him properly under a mask. Or someone will pass the microphone from the Pastor to the next person before sanitizing the mask* (Umbumbulu participant 2).
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> *In my church Covid-19 precautions were followed. Social distancing was observed and there was a security personnel that was responsible for dis-infecting the church venue when we went outside as a congregation. This was done to clean the tent for the second session. Congregants wear their masks even if they are singing* (Umlazi participant 1).
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> *I could see that they did practice some social distancing judging by their chairs. But that is a charismatic church, so people are usually filled with the Holy Spirit and they jump up and down. When I got there, I was wearing a mask and the other church members were not wearing their masks and they were singing and praying. Some people moved their chairs closer to their friends and the pastor was praying while touching other church members. The pastor did not sanitize his hands before touching people, I am sure that he did not sanitize his hands because I did not see a single sanitizer inside the church venue. The Covid-19 precautions were not followed at all and the microphone was shared amongst speakers without disinfecting it* (Umbumbulu participant 2).

The quotes provided point to challenges associated with strictly adhering to the prevention measures when local contexts were considered. This also reflected on how people made meaning of the prevention measures within local contexts and adjusted these for suitability.

Again, government emphasis was on compliance but participants believed that this was largely dependent on individual choice. This means that it was still up to an individual to decide on which measure works best for them and in what context. This was observed during the FGD as participants shared their preferences of the prevention measures and what works for them in different contexts.

> *I wash and sanitize my hands regularly. I do not wear a face mask at home, it is usually somewhere inside my pockets for instances where I meet many people. Then, sometimes I wear it and sometimes I don't. I told myself that anything can happen because there's no way you can protect yourself 100% from Corona. The virus is airborne meaning that you can contract it many other ways, because it is lingering in the air. You get people that protected themselves from the virus yet they contracted it. For instance, the members of parliament who had access to everything available to protect them from contracting the virus and yet they still die from it* (Umbumbulu participant 3).
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> *Sanitizing my hands is easier for me. I do this because I know that sanitizing kills germs and all kinds of other things and it also keeps my hands clean. But when it comes to wearing a mask, it is very uncomfortable for me because I cannot breathe while wearing it. Social distancing is challenging because it makes the queue longer than it is supposed to be* (Umlazi participant 3).

Motivation to adhere and the ability thereof were two distinct factors that contributed to individuals' decisions to comply with the prevention measures. Findings showed the uncomplimentary nature of the two as participants shared their lived experiences in relation to the recommended prevention strategies. What came out in these discussions were reflections on the social and contextual conditions that enabled adherence or lack thereof. There were also considerations on adapting the prevention measures to align with individuals' everyday needs.

5.8 Culture and COVID-19 prevention

The global outbreak of COVID-19 did not only highlight the importance of robust and responsive public health systems and preventative measures but also underscored the critical role that culture played in shaping individuals' responses to these preventive measures. Culture, encompassing shared beliefs, values, traditions, and social norms, acted as a powerful determinant of individuals' behaviour. In the context of COVID-19 prevention, understanding the cultural nuances was crucial as it significantly influenced people's ability to comply with the recommended guidelines. From mask-wearing, hand hygiene to social distancing, cultural factors contributed to a diverse range of responses, affecting the effectiveness and adoption of public health interventions. The role of culture in the adoption and interpretation of the prevention messages was explored in this study with the aim of establishing the intricate interplay between culture and COVID-19 prevention. The FGDs provided insights on how cultural contexts shaped individuals' attitudes, perceptions, and adherence to the prevention measures.

Recurring themes from the discussions on the role of culture in influencing the acceptability and adherence to the prevention measures included (1) the intentional dismantling of cultural unity; and (2) conducting funerals during lockdown. In the exploration of these themes it was evident that participants held strong cultural beliefs and practiced specific cultural rituals that did not align to the recommended prevention measures. This left them with conflicting ideas on whether to ignore or adapt their cultural practices in favour of the government's mandated prevention measures. Each of these themes will be unpacked below to highlight the intricate role of cultural contexts in the public health prevention communication.

5.8.1 Dismantling the culture of unity

The COVID-19 pandemic and subsequently the recommended prevention measures changed the social and cultural fabric of interactions. It altered the traditional practices and beliefs which were centered around community unity or togetherness. In this study, participants prided themselves on their rich culture, with shared beliefs and practices and shared how they found strength, resilience and identity through shared experiences within their communities. However, the advent of COVID-19 and the subsequent lockdowns undermined these in many ways and was seen as a ploy to disrupt their cultural way of living which necessitated fundamental changes in how they lived and perceived societal unity. In light of this background, adhering to the prevention measures

was not well received by many as this compelled them to make instant changes to their lives and adjust their cultural preferences and reimagine their collective bonds in the face of the COVID-19 pandemic. Participants shared their views on the recommended prevention measures and what these meant to the culture of unity within their communities:

> *Our great-grandparents used to share snuff and drink African beer from the same African calabash, some used to wipe the calabash but others did not wipe it at all, but they continued to drink with them irrespective of that behaviour. Closeness is an African and Black culture. As black people we believe in spending thousands in buying food, cattle and slaughtering the cattle, so that we can invite people to come celebrate with us by eating, singing and dancing with the family. In places like these celebrations it is impossible to keep the social distance. We are not allowed to do all of this currently, but we do it anyway because closeness and togetherness is like our second nature. For instance, when we got here, I wanted to shake his hand, but I remembered that it is not allowed to do so. Closeness is something that we were born with, like holding hands, socializing and being loving beings that we were born to be. We believe in closeness, social distance will never work with us, maybe it could work better in urban areas and in towns. Besides, we were not taught anything about social distancing and you cannot tell us to do something that was never taught to us* (Umlazi participant 5).
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> *I was in the rural areas a while back, there was a ceremony where four young women were coming of age (ukukhuliswa kwentombi). In rural areas it is a common practice for everyone to attend any cultural event that is happening in the area. It was packed to a point where I forgot that we are living under Covid-19 times. There were no masks on sight, no social distancing and hand sanitizing, but it was packed for two full days* (Umlazi participant 1).

Traditionally, cultural celebrations, weddings, funerals and other events brought together communities and families. This was also seen as a sign of support offered by relatives and the community at large.

> *Traditionally, funerals are attended by as many people as possible; this helps the family of the deceased by comforting them and helping them with chores as well. Due to Covid-*

19 and its restrictions, the family now has to do everything like digging the hole on their own (Cato Crest, participant 1).

We could not invite the number of people that we wanted [to an event], we had to invite only a selected number of people. We have a lot of relatives and sometimes the required number of people does not include all your relatives and that causes problems because people think that your decision to invite that certain few was inspired by favouritism. And it happens that people arrive and they are more than the required number, then it becomes a problem because you cannot turn them away, they are relatives at the end of the day (Umlazi, participant 6).

While this was difficult, participants reported that they were more likely to adhere and allow the disruption of their cultures when law enforcements were present, otherwise in their absence they still maintained the upkeep of their traditions.

I lost a child; his father slaughtered a goat for him on his birthday. Ever since Corona arrived, it is pointless to do that because people will not eat the meat so it will go to waste. Even if we can try to celebrate his birthday, the Police will come and disperse people (Umlazi, participant 4).

Weddings are not like they were before Covid-19. The weddings are shorter, they usually last up to five hours now and there is no after-party. The Police are also present to make sure that everything is done according to the new law (Umbumbulu participant 3).

5.8.2 Conducting funerals during lockdown

In addition to these broad challenges pertaining to the distraction of the cultural and traditional practices as known to participants, funerals were discussed in great detail as participants shared their views on how the new way of conducting funerals during the lockdown affected them and stripped the dignity and respect accorded to the deceased. In all study communities, this was a common theme and a lot of dismay was raised and future repercussions for not following tradition during the funerals were discussed at length.

As was the rule during the adjusted level 2 COVID-19 lockdown period, funeral attendance was limited to 50 people or less and if the venue was too small to hold the prescribed number of people observing social distance, then not more than 50 percent of the venue capacity was to be occupied. During this period, night vigils and after funeral gatherings were strictly prohibited. This was against the societal norm of how funerals were conducted prior to the pandemic and added to these were the undocumented restrictions on how people were to handle the corpse or conduct the funeral. Participants described this prescribed way of conducting funerals as untraditional and undermined their sense of togetherness and support for the family of the deceased during the time leading to the funeral. Participants described this as letting the family deal with the grief alone without the support of the community and this went against what they believed was required by the family during a time of grief. Almost similar views were shared by participants on how funerals were conducted:

> *There was a time where people were not allowed to view bodies inside the morgue. Traditionally, when the deceased returns to his home from the morgue older people wash him or her and there are other rituals that need to be done at that time as well. Even if the person died due to other things not COVID, the family is still not allowed to view the body and wash his wounds before the burial. Due to COVID, some families are forced to perform their rituals at a later stage. It is believed that these rituals work better while the person has not been buried* (Umbumbulu participant 1).

> *Before the funeral the deceased body used to be taken inside his/her room, inside the tent/hall and then to his/her final resting place. Due to Covid-19, the body of the deceased arrives in the morning and goes straight into her/his final resting place, even if the person did not die from Covid-19* (Cato Crest participant 3).

> *If someone died because he was shot or stabbed, we believe that after the person died the family will have to consult a traditional healer who will guide them on how "ukugezwa kwamanxeba" ritual should proceed. It is believed that if a person died because of a deadly weapon, that person will come back to fetch the rest of his family if this ritual is not done* (Umbumbulu participant 6)

The COVID-19 pandemic presented challenging changes in the manner in which families and communities mourned and practiced the necessary rituals and traditions. Participants believed that prior to the COVID-19 lockdown and restrictions, funerals brought community members and families to collectively grieve and mourn the deceased and this formed part of their traditions but with the funeral restrictions imposed by the government at the time, this was not possible. As presented in these findings, in its nature, the traditions of the communities under study were not aligned to the prevention measures recommended, participants from these communities placed value on being together in good and bad times but following these values went against the mandated prevention requirements.

5.9 Indecisive communication

The COVID-19 lockdown period presented an array of changes to people's lives as reported in this chapter and in order to achieve the best outcomes individuals needed to be well informed of the government's expectations as it related to the prevention measures. During the FGDs, effective communication emerged as an important factor in public health responses as these guided individuals' and communities towards informed decisions and acceptability of the prevention measures. However, communication on the prevention measures and the compliance thereof was characterised by ambiguity and inconsistency which posed major challenges to individuals who were already struggling to make sense of the complexities of the pandemic response. Indecisive messaging and conflicting information and actions from authorities collectively contributed to the participants' doubts about the relevance and urgency of adopting the prevention messages.

During this discussion on communication, participants explored two main themes (1) lack of clarity in COVID-19 prevention messages, and (2) differences on the applicability of the prevention measures in certain communities. Both themes reflected broadly on the communication channels and challenges which in some way raised scepticism among communities on the importance of adhering to the prevention measures. The role of clear and concise communication was discussed, highlighting the need for transparent and consistent communication in order to effectively accept and adopt the measures.

5.9.1 Lack of clarity in COVID-19 prevention messaging

There were a number of concerns expressed by participants on how the COVID-19 prevention messages were communicated to them, with most dissatisfied with the level of education and

community awareness provided on the virus and its prevention. Key challenges with the messaging included contradictions observed and that these (prevention measures) were seen as open to individual interpretation as established earlier in this chapter. This referred to instances where participants could selectively adhere to certain measures at a given time. For example, some participants chose to social distance instead of wearing a mask as they felt the one was more convenient than the other and they still believed they were safe from the virus or sometimes vice versa. Participants further grappled with a complex decision of differentiating what was believed to be an effective prevention method at an individual level versus the combination prevention package mandated by the government. In other words, what authorities put out as prevention messages applicable to all were not all accepted by communities.

> *The Covid-19 awareness was not done properly, or the intended message did not reach the target audience in a correct manner. The Covid-19 awareness was like the passing of the buck. The government told us about the Covid-19 precautions but we were never taught about this virus, due to this reason it is easier for people to believe propaganda about Covid-19. Government did not send anyone from any department to go around and teach people about this new virus. As a result, people saw a loophole in the system and they started committing crime. In a taxi rank there are people who pose as government officials, they then make people pay an amount of R50 if they are not wearing a mask. No, they are taking the money home. This is the loophole I was referring to* (Umlazi participant 5).
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> *We as SA citizens do not know what Covid-19 is. Because we do not know what COVID is, we tend to do things because we were told to do them, not because we understand the importance of doing them. Even at school children would wear their masks only if they see a teacher. We need to have a thorough understanding of COVID in order to protect ourselves from it. I also believe that there were no programmes to create Covid-19 awareness, we were only told about precautions* (Cato Crest participant 2).

In the absence of clear education and communication about COVID-19 and its prevention, a number of inconsistencies in the adoption of the measures were observed in communities. The decision for adherence was influenced by personal experiences and perceived ability to do so. While some participants were motivated to adopt the prevention messages, they still believed that it was pivotal for the government and health officials to have provided education in order for

communities to be empowered to make well informed decisions. The idea of being told what to do was an unattractive one to participants who would have preferred to be able to make their own decisions. The motivation to adhere was then to some extent influenced by enforcement from officials or dependent on whether it was mandated to do so or not.

> *I also know nothing about Corona. I know that there is Covid-19. We need proper education about this virus. For instance, we know a whole lot more about HIV/AIDS because we were taught about it. There must be campaigns aimed at educating people about Corona, like door to door campaigns and community meetings. This is vital because Covid-19 is deadly* (Umlazi participant 4).
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> *I would ask the government to create more awareness about the virus* (Umbumbulu participant 3).

Participants also reflected on their preferred alternatives to the prescribed prevention measures and these included herbs and practices that were deemed as culturally relevant for them and within their own reach. In efforts to still preserve their traditions amidst the pandemic, participants believed that using traditional herbs would be more effective as these were also used in ancient times to treat diseases with similar symptoms as COVID-19. One participant noted that "*There are traditional healers, who have knowledge about traditional herbs that might assist in curbing the spread of Coronavirus by strengthening one's immune system*" (Cato Crest participant 1). Umhlonyane (a traditional herb used to treat colds and fever) was the most preferred among participants and this was easily available in local pharmacies and traditional stores.

> *I also believe that research institutions should conduct their research and come back to traditional healers so that they can discuss the way forward together. In Madagascar they are using "umhlonyane", so it would be nice if we could get that kind of information from institutions. I mean promoting indigenous knowledge the same way that other Covid-19 precautions are advertised or promoted* (Cato Crest participant 3).

In addition to traditional herbs, participants adopted virus strategies to prevent COVID-19 infections and these included steaming, drinking hot water and regular exercise. While there was no scientific evidence to support these efforts, these were accepted alternative prevention measures within communities.

I used something sold at Clicks for steaming. I used this thing because I heard that steaming kills the virus in your nasal passage before it reaches your lungs. After steaming with this thing, I would feel my chest being cleared and I felt refreshed (Cato Crest participant 5).

We also drink and eat something's to boost our immunity or give us Vitamin C (Umlazi participant 2).

5.9.2 Inconsistencies on the applicability of the prevention measures

Ambiguity in the communication on COVID-19 prevention was not the sole challenge, differences in the applicability of these measures also raised concerns amongst participants. There were a number of instances where participants observed inconsistencies in how these were enforced in different settings. In all these instances, there seemed to be rigid enforcement in local communities and amongst ordinary citizens whereby police took actions to ensure compliance. This was evident in community gatherings where a prescribed number of individuals was expected to attend and still maintain social distance and all other preventative precautions. There were also reported instances where police patrolled around the community and anyone not observing the measures would face consequences.

There was a time where Bheki Cele was doing a campaign with his department, one person was found not wearing a mask and that person was arrested (Umlazi participant 5).

During the lockdown period, participants observed the flouting of the COVID-19 prevention measures by prominent individuals who were meant to be exemplary in the adoption and compliance to the measures. Amongst many that were observed, this section makes reference to a few.

On the 24th of January 2021, the premier of Mpumalanga, Ms. Refiloe Mtsweni-Tsipane was seen on national television not wearing a face mask at a state funeral of the late Minister Jackson Mthembu. This came up during the FGDs and participants felt that if people in places of authority broke the rules, they should also be afforded the same with no repercussions or punishment for their actions. Some believed that the premier's subsequent punishment of a fine was somewhat

less severe compared to what they would have endured (including being arrested) had they disobeyed the prevention measures.

> *Another member of parliament did not wear a mask in some politician's funeral and she claimed that she had forgotten to wear a mask that was also on national TV. Nothing was done to her to ensure that she does not repeat the same mistake. Politicians are breaking the Covid-19 precautions and nothing is done to them, so we are receiving a message that stipulates that we can do the same and we will not suffer the consequences of our actions* (Umlazi participant 6).

While wearing of face masks was still mandated during level two lockdown, there were observed instances where police officers were also not wearing the mask and this sent a message to community members on the irrelevance of the prevention measures on this lockdown level. When police officers began to not observe the prevention measures, concerns and mask wearing fatigue creeped in for everyone drawing lessons from actions of authorities (police in this instance).

> *Since we are under alert level 2, it seems as if the Covid-19 precautions are null and void. People including the Police do not wear masks anymore. They stopped wearing masks a while back* (Umlazi participant 1).
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> *Police officers who guard the Post Office, during the R350 grant dates do not wear masks, so how are they going to make sure that we do follow the Covid-19 precautions* (Umlazi participant 4).

Observing inconsistencies in the applicability of the prevention measures on authorities versus ordinary citizens was concerning for most participants. This exacerbated the scepticism on the relevance and importance of complying to the measures when officials themselves were not practicing what they preached.

In March 2021, King Goodwill Zwelithini (the amaZulu King) passed on and was afforded a state funeral which was well attended by government officials, traditional leaders with representatives from other African countries, and the greater community. Given that the King was a respected person and in honour of the Zulu culture a number of activities were planned around his funeral and large numbers of people gathered for the funeral. The funeral was televised nationally and

participants who watched this on TV reflected on how a number of the prescribed prevention measures were not observed and no corrective actions were taken.

> *When King Goodwill Zwelithini passed on, we saw a lot of people attending the King's funeral and we expected that funeral to be a super spreader* (Umlazi participant 6).
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> *Why was no-one arrested for not following the Covid-19 precautions during the King's funeral?* (Umlazi participant 4).

The inconsistencies in COVID-19 prevention communication significantly influenced individuals' ability to effectively adopt the necessary measures. Conflicting messages about COVID-19 prevention created confusion and ambiguity among participants and the broader community as discussed during the FGDs. This lack of clarity hindered the participants ability and confidence to make informed health decisions for themselves about COVID-19 prevention and this translated into scepticism about adopting the prevention measures.

5.10 Conclusion

The COVID-19 prevention measures were necessary in curbing the spread of new infections however, the contextual relevance, acceptability and overall individuals' ability to adopt these was not considered. As communities made meaning and grappled with the complexities presented by the COVID-19 pandemic, it was more important to maintain their sense of belonging and way of doing things which was largely challenged by the mandatory prevention measures. This chapter reflected on how communities interpreted and adapted the dominant COVID-19 prevention messages and adapted these within their local contexts. The overarching finding was the scepticism to adopt the prevention measures owing to a number of reasons including various interpretations of which measures were relevant and actionable, the role of culture in enacting or complying to the prevention measures and the communication around COVID-19. Those in favour of the prevention measures were motivated by their perceived risk of contracting the virus which included factors such as age and existing health conditions or comorbidities. Overall, findings presented in this chapter point to the consideration of cultural and local context in health communication in order to achieve the intended health outcomes.

Chapter 6: Adjusted level 1 lockdown

6.1 Introduction

This chapter presents findings in relation to the study's exploration into how COVID-19 prevention messages were understood and interpreted, how they were re-constructed by rural, informal, and township communities during the lockdown, and how a people's science response might inform messaging beyond the pandemic. This chapter presents findings from the second phase of data collection which took place between October and November 2021. This data was collected during the adjusted level 1 lockdown[2] in South Africa. This lockdown level was characterised by eased restrictions on gatherings and sale of alcohol and cigarettes as well as adjusted recommended curfews and business operations. Similar to the previous phase of data collection, phase 2 was conducted in the same study sites of Umbumbulu, Umlazi and Cato Crest with a sample of men and women residing in the respective communities. A similar approach to data collection was also adopted in which participants were gathered for an introductory discussion, where the study was introduced and data collection was explained. Following this, participants were requested to collect data using the photo voice methodology and two weeks later, a focus group discussion was held with all the study participants. Each of the 3 stages of data collection happened in the respective communities and all photos were shared in the community WhatsApp group which was administered by the researcher. The chapter below specifically presents findings from phase 2 data collection. The chapter begins by presenting the demographics of the study participants followed by a visual representation of the key findings from the study. Subsequent sections share detailed presentations of the study findings drawn from the focus group discussion with the participants.

6.2 Participants demographics

A total of 23 participants took part in the study with the highest representation recorded in Umbumbulu with 9 participants as opposed to the other sites which each had 7 participants. At enrolment and during the introductory group sessions, participants provided consent to take part in all phases of data collection, however, consent was re-administered for those attending the focus group discussions. As opposed to the first phase of data collection, in this phase participant retention in the study was achieved throughout all phases of data collection. In other words, all participants consenting during the introductory sessions participated throughout the study and

[2] Adjusted level 1 lockdown included the period between Oct and Nov 2021

were also available for the focus group discussions which marked the last stage of data collection. Table 6.1 below presents the number of participants from each site that participated in the study.

Study site	**Stage 1: Number of participants who attended the introductory session** **N = 23**		**Stage 2: Number of participants attending introductory session** **N = 23**		**Stage 3: Number of participants attending FGD** **N = 23**	
	Males	Females	Males	Females	Males	Females
Umbumbulu	5	4	5	4	5	4
Cato Crest	2	5	2	5	2	5
Umlazi	5	2	5	2	5	2

Table 6.1: Phase 2 participant demographics

Of the 23 participants that took part in the study, 13 were females and 10 males with an average age of 29 years. Cato Crest had the highest representation of males (5), whereas Umlazi had the highest number of females (5) participating in the study. Below is a presentation of the photos gathered by the study participants.

6.3 Visual presentation

This section presents images from all study sites, capturing moments and lived experiences during the COVID-19 lockdown. During this period, participants were engaged in various preventive measures including hand washing, social distancing and mask wearing, however, there were differences in how these were carried out. The timeframe of data collection also presents variations in how people understood and applied the prevention measures in their daily lives. The images provide a lens to understanding the everyday lives of the participants during a period where abiding by the health protocols and prevention measures was necessary. Each image presents a distinct story of the participants' understanding and adaptability of the prevention measures to align to their social and cultural needs and expectations. The images further present the collective effort of communities to navigate life during a pandemic and in light

of the mandated prevention measures. From simple yet meaningful practices of handwashing and wearing face masks to the innovative ways in which communities adapted the new norms, these images serve as a presentation of how participants interpreted the prevention messages within their contexts in order to create localised messages and communicative discourses around COVID-19 prevention. Unlike the previous chapter in which the images were presented under the broad themes categories of hand washing, social distancing and face mask wearing, this chapter takes a different approach. Following reviewing and reflecting on each of the images collected, it was evident that the emphasis on the images was not necessarily how each image aligned to the prevention messages but rather how communities engaged with the prevention measures. As such, the images will be presented under the following categories (1) readjusting to normalcy (2) events and celebrations; and (3) social living.

A total of 78 photos were collected across the three study sites, with the largest number (50) collected from Umbumbulu, Umlazi and Cato Crest collected 11 and 12 respectively. The photos from Umbumbulu were largely duplicated and after a thorough process of de-duplicating the photos, 27 unique photos were retained. Photos that are presented in this chapter includes those that were clearly captured and with minimal face exposure in cases where images of people were taken. As stated in the previous chapter and given the quality of photos shared, blurring faces in the photos tempered and, in some instances, erased the meaning captured in the photos. The photos presented below include a description of the photo and a quotation from the participant in order to provide meaning and context for each photo.

6.3.1 Readjusting to normalcy

The photos presented below show the participants' interpretation of the prevention messages and need to return to normalcy in the midst of the COVID-19 pandemic which translated to minimal adherence to some of the prevention measures. Beyond the biomedical and behavioural perspectives to COVID-19 prevention, these photos captured the narrative of adjustment and adaptation of the prevention messages within localised contexts. As described by participants, the photos presented their collective need to return to normalcy while still making attempts to adhere to the prevention messages. These reflected the social and cultural complexities inherent in navigating a health crisis like the COVID-19 pandemic.

These photos reflect how people went about their daily lives in the midst of the COVID-19 pandemic. The photos show individuals’ behaviours as it relates to the dominant prevention measures of social distancing, hand washing and mask wearing.

Photos relating to readjustment of the prevention measures	
Photo	**Description of the photo**
	1. The photo was taken at a famous fast food store 2. The photo captures people at a local store not observing social distance while waiting to collect their orders. The photo further shows a social distance marker that is ignored by customers in the store. 3. The participants said the following about the photo: "*This normally happens when people are impatient and rush to purchase their meals or groceries for instance"* (Umlazi participant 1, 17 Nov 2021).
	1. The photo was captured in a market place in eThekwini. 2. The photo shows a busy marketplace, with people not social distancing and there are observed inconsistencies in the wearing of face masks. The participant said the following about the photo: "*These types of places are always crowded, and you hardly find people adhering to the COVID-19 regulations"* (Umlazi participant

	2).
	1. The photo was taken at a local mall in one of the most popular grocery stores. 2. The photo shows people in a long queue to the store and very minimal adherence to the COVID-19 prevention measures. 3. The participant said the following: "*Most shops are forever crowded, there is no any social distancing. But let's be honest, if we maintain social distance, this queue would end across the road"* (Umlazi participant 3, 17 Nov 2021).
	1. A photo taken in Umbumbulu of people in a queue. 2. The photo captures people who largely are wearing face masks but not necessarily observing social distancing. 3. The participant said the following about the photo: "*See the old people in this queue are wearing masks because they respect the COVID-19 prevention methods, at least they have masks they don't have to social distance. See there's a road behind them*" (Umbumbulu participant 3, 18 Nov 2021).

Table 6.2 Visual representation of readjustment of prevention measures

The images below portray the individuals' behaviours in relation to the lockdown restrictions that were recommended during the adjusted level 1 lockdown. The images capture the events and celebrations within local communities, revealing the diverse ways in which participants and their communities more generally made sense of the lockdown restrictions implemented at the time. These serve as a visual narrative of the evolution of behaviours over the course of the pandemic, highlighting changes in social interactions, adherence to safety measures, and the emotional toll of prolonged isolation.

Photos relating to events and celebrations	
Photo	**Description of the photo**
	1. The photo was taken during a church service 2. The photo captures how services were conducted during the adjusted level 1 lockdown period, and depicts congregants' behaviours as t related to mask wearing and social distancing. 3. A participant explained this photo as follows: "*Things are still the same. It is just a few people who wear face masks. Hand sanitizers are kept on tables, people choose whether they want to sanitise or not. When people sing or read the bible, they do not wear masks*" (Cato Crest, participant 5).

	1. A photo taken in traditional event in a rural community 2. The photo shows a group of men eating and drinking together during the event 3. The participant shared the following about the photo: "*We still eat from one dish, and we drink our traditional beer from one cup…because as men, we trust each other…We can't drink umqombothi using glasses*" (Cato Crest participant 2).
	1. A photo taken in a gathering in Umbumbulu 2. The photo shows people enjoying each other's company, chatting, drinking and dancing and no preventative measures are observed. 3. The participant shared the following about the photo: "*I took this photo in a certain celebration, as you can see people are just wondering around not wearing any masks and there is no social distancing, people fail to adhere to COVID-19 protocols*" (Umbumbulu participant 3, 18 Nov 2021).

Table 6.3 Visual representation of events and celebrations

The next images illustrate the ways in which individuals sustained their social connections, including gatherings and parties, amidst the adjusted level 1 lockdown restrictions. The images depict the fundamental cultural need for interaction while also serving as a reflection of adherence to COVID-19 prevention measures during this time.

Photos relating to social living	
Photo	**Description of the photo**
	1. A photo taken from social media showing people in a crowded venue 2. The photo shows a huge gathering at night, with individuals not social distancing nor wearing face masks. 3. The participant had the following reflection about the photo: "*People have been indoors for so long and then they say it's level 1 but there's no relief, we have a social life and we missed partying, I can 100% relate to this photo and this is exactly what happens where I stay. Please host parties and I also go…the government will forgive me shame*" (Umlazi participant 2).
	1. The image was taken at a local tavern. 2. The image shows people in a tavern with alcohol on the table and no face masks on site. 3. The participant shared the following reflections on the image: "*These people in the tavern are not adhering to COVID-19 protocols, they are not wearing masks and there is no social distancing…They remove their masks when drinking alcohol and being intoxicated probably makes them forget*

	about social distancing" (Umbumbulu participant 1, 18 Nov 2021).
	1. A photo of friends taken after class 2. The photos show a group of people laughing together but they do not have masks on. 3. The participant shared the following about the photo: "*Well, we do not do things the same way. We always observe social distancing with my friends because others do believe that Covid-19 is real. We are not used to wearing masks though because it blocks our nose, so we only wear it in class. In an outside environment, we just observe social distancing. Well, others do not observe social distancing, but they wear masks*" (Cato Crest participant 5, 19 Nov 2021).

Table 6.4 Visual representation of social living

6.4 Rethinking COVID-19 prevention

The easing of the COVID-19 lockdown restrictions during the adjusted level 1 lockdown were received and interpreted differently by communities and these are reflected in the images presented above. In further discussions with the participants to reflect on the images, there were a number of key themes that emerged and these related to the yearn for normalcy. While a number of participants appreciated the need to comply with the prevention measures, there was also observed compliance fatigue amongst participants. Given that the lockdown restrictions had taken over a year at the time of data collection, this greatly influenced the participants' reactions, experiences and behaviours as it related to adhering to the prevention measures.

Amongst the key issues discussed during the focus group discussions was the idea of perceived immunity towards being infected with COVID-19, particularly during the adjusted level 1 lockdown. There were also a number of discussions that landed themselves on complacency, owing to individuals' understanding of the disease and experiences at that point of the pandemic. In addition to the disease fatigue experienced during the time, participants had already adapted a number of key beliefs and practices to align to the government requirements and in line with what was acceptable during the lockdown period. As such, during this data collection, participants reflected on the cultural adaptations they have had to make. In these discussions' participants reflected on the cultural practices they could not fully observe all in the name of upholding the mandated prevention guidelines. Participants also reflected on the role of social unity within their contexts and how their socio-economic contexts influenced their ability to comply

The section below reflects on each of these themes in order to understand participants' experiences and interpretation of the dominant COVID-19 prevention messages at a different time point than what is presented in Chapter 5. This section further presents the nuanced relationship between the adjusted level 1 lockdown restrictions and the interpretation of the COVID-19 prevention messages, shedding light on individuals' experiences and adaptation of the messages.

6.5 Perceived immunity

Prolonged lockdown restriction shaped people's perceptions of their risk to COVID-19 infection. As mentioned above, when data was collected for this study, various lockdown restrictions had been in effect for over a year, and during this period people's perceptions about their risk were at that point largely informed by their experiences, beliefs and perceived immunity. A number of participants had been perceiving COVID-19 as a disease that affects certain population groups and had very little exposure to COVID-19 in their own communities. This lack of experience and exposure to the disease informed people's perceptions about their "strong" immune systems as they described it. The argument was that if one could survive over a year of COVID-19 lockdowns and not be infected that meant that their immune system was strong enough to fight the infection and that they were then less likely to be infected. Since, this was a year later and new cases of COVID-19 and reported COVID-19 related deaths were rapidly decreasing, it was becoming more evident for participants that they would not get sick anymore. This perceived immunity was even greater amongst participants who shared that they had always been sceptical about the existence of the pandemic. When participants were not infected at the peak of the pandemic even when they were not always adherent to any of the prevention measures meant that their immune

systems were not compromised in any way thereby entrenching the belief of optimal immunity or even overestimated immunity.

> *The reason why I think Covid-19 is not real is because some politicians say Covid-19 is not real. They say we should not wear masks. There are no people that have succumbed to Covid-19 that we know (Cato Crest participant 5, 19 Nov 2021).*

> *Even if you sanitise your hands, wear your mask, they can still say you are infected. We are not supposed to get infected if we observe all the safety protocols. As we speak, there are vaccination rollouts, even when you are vaccinated, you can still get infected. That is why I say I do not believe Covid-19 is real and anyway I haven't been sick. I don't think I will get this disease anymore (Cato Crest, participant 4).*

Perceptions of risk were deteriorating quite rapidly at this time and this stemmed from different interpretations of COVID-19 immunity. There were various reports quoted by the participants alluding to the fact that individuals who had contracted COVID-19 and fully recovered were unlikely to be re-infected as previous exposure to the disease built immunity. As such a number of participants reported on this belief within their communities, noting that long exposure to the disease had built resistance and that people were becoming at decreased risk of infection.

> *From my perspective I believe that people have this mentality that there is no such thing as COVID-19, they have this belief that if you have been diagnosed with COVID-19 before there is no way you will be infected the second time especially if you have already vaccinated, it is something that only happens once. Even in shops people enter without masks and shop owners seem unbothered (Umlazi participant 2, 17 Nov 2021).*

A combination of lack of previous exposure to the disease or infection, perceptions of immunity development through previous exposure and beliefs that the disease does not exist led to some participants holding perceptions of overestimated immunity. This included a group of participants who strongly believed that they simply had immunity against the disease thus less likely to contract it and this translated to reduced interest to adhere to the prevention measures. Claims of immunity towards COVID-19 infection were mainly raised in the peri-urban site (Umlazi) and the rural and informal settlement sites were not as explicit about immunity towards COVID-19 but rather mentioned their experiences that influenced their perceptions of reduced risk to infection.

> *Some strongly believe that they have strong immune systems and they will never be infected with COVID-19 (Umlazi participant 3, 17 Nov 2021).*

Well, we believe that our immune systems are still strong (Umlazi participant 5, 17 Nov 2021).

In all sites, participants reported adopting alternative prevention measures that they believed were more effective in reducing their risk of infection than the prescribed prevention measures. Amongst these were steaming with hot water, drinking traditional herbs (umhlonyane), drinking hot water and some also believed that Vodka was effective. Using any of these measures religiously was believed to reduce risk of infection and build immunity towards infection.

6.5.1 Adherence challenges

The inability or reluctance of individuals to adhere to the prescribed prevention measures was discussed during the FGDs. Participants shared their challenges with maintaining consistent compliance. One notable phenomenon discussed was the emergence of perceptions of immunity among participants and their communities, leading them to rationalise non-adherence to the preventive measures. Some participants perceived adherence to prevention measures as inconvenient, thus resorting to cognitive shortcuts including assuming their immune systems to be strong enough to withstand infection. This perception provided a justification for non-compliance, as individuals believed that their innate immunity served as a sufficient safeguard against the risk of contracting COVID-19.

In cases where adopting any of the prevention measures proved to be difficult, participants tended to weigh the benefits of the prevention measure against the perceived inconvenience and health risk of complying with that specific measure. Face masks were amongst the prevention measures that rendered such inconveniences. Since most participants believed that they could not breathe properly with a face mask on, there was less motivation to wear it and the risks associated with not wearing a mask were downplayed in light of the perceived immunity.

The knowledge that I have and being educated about the COVID-19 especially the wearing of masks, we all need oxygen- but we can't breathe with a mask (Umlazi, participant 3).

When you are wearing a face mask, you can't breathe properly. A hand sanitizer sometimes gets too hot and that negatively affects us. For example, if I forget to wash my hands after sanitizing, then I take something to eat, I usually taste the hand sanitizer in my food (Cato Crest participant 5, 19 Nov 2021).

In cases where compliance was challenging, the default reaction was non-compliance with the justification of immunity towards contracting the disease. This belief was also largely linked to the factors discussed above including lack of previous experience and exposure to the disease. When individuals believed that their risk of infection was low and had high perceptions of their immunity, they were less motivated to adhere to the prevention measures as the immediate rewards of compliance were not attractive to them and did not offer any additional immunity.

6.5.2 Age factor

The government's emphasis on promoting COVID-19 infection prevention among older adults and those who are immuno-compromised shaped the youth's risk perception to some extent. The risk of COVID-19 infection was largely associated with older adults 60 years and above while younger populations downplayed their risk with perceptions of immunity towards infection. While some young people were still willing and able to adopt the prevention measures, there were some that lacked the urgency to adopt these measures owing to perceptions of disease immunity.

> *Elderly people are the ones who are most likely afraid to get infected with COVID-19 because they are aware that they are the main targets of getting infected especially with other illnesses which include diabetes…Well, we (youth) believe that our immune systems are still strong (Umlazi participant 5, 17 Nov 2021).*

According to most younger generation participants in the study, it was mandatory for older adults to be more adherent and government prevention measures on COVID-19 were targeted at older adults. This notion engraved the thought of greater immunity among young people and lack of urgency to adopt the prevention measures. The study was conducted at a time when there were already advancements in the COVID-19 vaccine development and communication of the vaccine prioritised older people. This further entrenched the belief that age was a big factor in COVID-19 prevention.

> *You see now there is going to be a vaccine, we don't know much about it. It has side effects; some people say it will not make your blood clot or something. But it's still not for everyone, they want to start with older people because they are more at risk than us. So, the government will never say it like it is and tell us that young people are not at risk, we are all put under one umbrella, if the infection rates were equally high across all generations then they would not always be emphasising old people and not (Cato Crest participant 1, 19 Nov 2021).*

While thoughts of increased immunity towards COVID-19 infection were high among the youthful population. There were a few that believed that COVID-19 prevention was a collective effort. In other words, protecting the older generation meant that the youth needed to play an active role in order to ensure that older people were not at risk. Amongst the quoted efforts, many spoke about the need for young people to limit their possible exposure to COVID-19 infection, particularly in cases where young people stayed with older adults which was quite typical in the rural and urban communities of Umbumbulu and Umlazi. As such this perceived immunity was not generalised across all the study participants but it dominated the conversation in which age was a great factor in disease prevention. Despite this, there were other factors that were affecting prevention and the interpretation of the prevention measures within local and cultural context and amongst these was complacency as discussed below.

6.6 Complacency

As noted earlier, the study was conducted over a year into the COVID-19 lockdown in South Africa, and the lockdown levels had been reduced from the strictest lockdown level 5 which was a complete lockdown of all non-essential activities and gatherings. As these lockdown levels were being eased so were the restrictions and people were slowly gaining their freedom. However, at the time of data collection there was also observed complacency as participants reported high levels of COVID-19 fatigue. Characterised by weariness stemming from prolonged periods of restrictions, isolation, and uncertainty, COVID-19 fatigue was an increasingly prevalent issue as discussed by the participants. The extended periods of lockdown measures aimed at curbing the spread of the virus led individuals and communities to navigate a delicate balance between adherence to the COVID-19 prevention guidelines and a growing sense of complacency. This delicate balance posed significant challenges as communities strived to sustain efforts in containing the virus while coping with the social, cultural and economic impacts of prolonged restrictions. As such, understanding the dynamics of COVID-19 fatigue and its implications was important in exploring the underlying causes of the disease fatigue and how this influenced people’s understanding of the prevention measures over time. Among the key issues that led or contributed to complacency amongst participants and their communities were minimal education around COVID-19 and the transition in lockdown levels as well the implications of the reduction in the lockdown restrictions.

6.6.1 Education

Minimal education on the severity and transmission dynamics of COVID-19 was reported amongst the key factors that contributed to a reduced sense of urgency and necessity to adhere to prevention measures. With limited access to accurate information and understanding of the virus and its transmission, participants underestimated the severity of the threat posed by COVID-19. In the study communities of Umlazi, Cato Crest and Umbumbulu, access to reliable information about COVID-19, misconceptions and misinformation about the virus were an issue. In a number of discussions, participants raised concerns about the type and level of education they received or were exposed to on the onset of the pandemic in the country. While some believed that the government and officials made efforts to educate them about the disease, a number of participants felt that the priority was prevention and not education at the time. This led to individuals making meaning of the disease and prevention guidelines on their own or as a collective within their communities.

In the Umlazi FGD there were disagreements amongst the group on the level of knowledge and education that people generally have about COVD-19. Some felt that knowledge was available to everyone but it was an individual choice to receive and use this information in a progressive way that promoted prevention. The extracts below are from these conversations:

> *Majority of people do not understand COVID-19 as a whole (Umlazi participant 3, 17 Nov 2021).*
>
> *I disagree everyone is aware of COVID-19 and how one gets infected, it has been emphasised a lot of times, and people have been educated and have knowledge about the virus (Umlazi participant 2, 17 Nov 2021).*
>
> *Yes, we are the ones who choose to be ignorant because we are very much aware of what is expected of us as individuals. Everyone is aware that there is a vaccination, but the very same people will choose not to vaccinate because of their own beliefs and theories…Personally, I am also scared to vaccinate of stories that vaccinated people share on social media, being sick and weak for the whole day, that what kept me from being vaccinated (Umlazi participant 1, 17 Nov 2021).*
>
> *Yes, some people are not aware nor educated because you would educate a certain person and go all out but they would still not understand a single word that you have uttered out of your mouth, and like respondent one said that she is scared to take the*

vaccine so am I because of the stories we have heard, they are very disturbing and unsettling (Umlazi participant 3).

From these discussions, people were exposed to some level of information but acceptance and interpretation differed. The idea of misinformation and conspiracy theories came out many times and this related to how people were making health choices based on information they have heard which may not always be true. Without a comprehensive understanding of the virus's potential to spread rapidly and cause severe illness, individuals underestimated the importance of measures such as mask-wearing, social distancing, and hand hygiene. This lack of urgency was compounded by misinformation or conspiracy theories circulating within communities with limited educational resources. In this instance, there was a lot of discussion about the vaccine which was fairly new at the time of the study but participants reflected on this, sharing their unwillingness to vaccinate as result of the negative information they have been exposed to about the virus. While this did not necessarily relate to the key prevention measures, the vaccine was also an important added prevention strategy worth unpacking as this could provide insights to how individuals generally formulated their opinions about COVID-19 prevention. Amongst these concerns a participant in Umbumbulu held strong sentiments about the connection between vaccine knowledge and acceptance as well as the prevention guidelines of hand hygiene, mask wearing and social distancing.

The same way people don't want to know about the vaccine and they think the vaccine will kill them or make them sick by causing blood clots and other things. No one has officially told us this but one person started a rumour and it is spreading and we now believe it. Same thing with the masks, someone started saying masks make us breathe carbon dioxide which will make us sick and we started hating masks. Same people are drinking more alcohol and saying they are sanitising their insides since the sanitisers have alcohol and so drinking alcohol is also good. You see we always believe in this false information and it spreads very quickly. Now we don't even know what's true and what's not (Umbumbulu participant 4, 18 Nov 2021).

Added to the education challenges and interpretation thereof, was the lack of clarity on how the prevention measures would apply in certain social and cultural settings where it would be difficult to fully comply. Amongst these communities, societal responsibility was mentioned in many discussions stating that it was the communities' responsibility to support each other in times of bereavement and celebrations as this showed unity. In such instances no level of education made

provisions for such events as participants mentioned the culture of unity is what defined them and no exceptions were catered for in the prevention guidelines. In such instances of lack of provision in the guidelines, some participants felt that no level of COVID-19 prevention education would make them deviate from this important culture that represented social cohesion.

> *Yes, we still do everything, we still slaughter and have gatherings, we attend funerals regardless of the stipulated 50 people maximum, imagine not going to your neighbour's funeral just because of COVID-19 rules (Umlazi participant 4, 17 Nov 2021).*

> *It is important to support neighbours especially in the passing of someone, they need closure and that is all you could offer, love your neighbour as much as you love yourself (Cato Crest participant 4, 19 Nov 2021).*

Differing interpretations of the COVID-19 education and lack of flexibility in the prevention guidelines increased complacency amongst participants who at the time of the research reported high levels of disease fatigue. Participants had reported that in the early days of COVID-19 they made attempts to adhere to the prevention measures even though this was not easy and had to adapt these to some extent. However, over a year of COVID-19 prevention and varying lockdowns were making it difficult to discard societal learnings that shaped their identities and their communities all in the name of prevention. As such, participants continued to reinterpret these messages and the education provided in order to make sense of their situation on how they foster or uphold supportive structures within their communities. The likelihood in most of these instances, was that over a year of the pandemic had made participants fear the disease less even where education and knowledge about the disease and its prevention was available.

6.6.2 Easing of the lockdown restrictions

The gradual easing of the lockdown restrictions, in some cases, led to a sense of complacency among the study participants and within their communities and this marked a shift in attitudes towards COVID-19 prevention. As restrictions were lifted, some eased and daily activities resumed, there was temptation for individuals to lower their guard, with the belief or assumption that the worst of the pandemic was over. This complacency manifested in various ways, from neglecting to adhere to mask wearing mandates and social distancing guidelines to participating in large social gatherings without adequately adhering to the prevention measures. The psychological relief of returning to the state of living of pre-COVID-19 life coupled with the disease fatigue contributed to this complacent mindset. While with each drop in the lockdown levels, health

officials emphasised that the pandemic was not over and new variants were circulating which posed health threats, this did not seem to deter a number of participants who had strong beliefs that easing the lockdown restrictions meant reduced risk and this translated to poor intentions to continue adhering to the prevention measures.

The government's communication strategy was seen to be indecisive and unclear to a larger extent as participants believed that the easing of the lockdown restrictions meant reduced risk of infection. Loosely translated there was no need for individuals and communities to continue with adherence, as this meant that people could finally go back to normalcy with no major consequences. Comparing the COVID-19 pandemic with other health threats in the country, some participants believed that the government had never adopted a transparent communication stance when it came to disease management. By this, they meant that announcing the onset of a disease or health threat and its prevention was one of the major tasks the government excelled in but announcing the end of a disease was not their strength. As such, participants believed that the adjusted level 1 lockdown merely meant that the COVID-19 infection was no longer a health threat and that things could go back to normal. One participant made reference to the outbreak of listeriosis in South Africa, where the government warned people about the disease and proposed ways to avoid infection.

> *People are not observing the social distance and when you remind them of Covid-19 precautions, they will simply say that we are on alert level one, it is not that bad. People believe that under alert level one it is okay not to obey Covid-19 precautions. People are comparing Covid-19 outbreak with Listeriosis. They say the government will never announce the end of Covid-19, just like what happened when Listeriosis was no longer a threat. They think that under alert level one people are allowed to shake hands and hug (Umlazi participant 5).*

The lifting of bans on alcohol which was in the past reported by officials as causing reckless behaviours that led to increased cases of COVID-19 and pressure on the hospital system owing to accidents and incidents that happened as a result of alcohol consumption sent different signals to participants. In addition to some participants assuming that this is one of the ways that the government was indirectly communicating with all citizens that the pandemic was no longer a threat, some also believed that this marked the end of the COVID-19 pandemic.

> *Last time they said alcohol led to super spreader events which increased cases of COVID now they open alcohol for sale yet they say there is still COVID. Why should we believe*

that, which one is true? They used to say hospitals get full because people drink and drive and they stab each other. So, if Corona is still a big issue, why open alcohol for selling, will people now behave differently…hai there's no Corona now (Umlazi participant 5, 17 Nov 2021)?

Participants raised concerns about the contradictory messaging from officials, as individuals' behaviours after taking alcohol went largely against the prevention guidelines.

It is because you find that other people are under the influence of alcohol. Most people drink to have fun in ceremonies. You can't really tell a person who is under the influence of alcohol to wear a mask. They do not have time to sanitise (Cato Crest participant 1, 19 Nov 2021).

They remove their masks when drinking alcohol and being intoxicated probably makes them forget about social distancing…alcohol contributes the most when it comes to violating COVID-19 safety measures (Umbumbulu participant 2, 18 Nov 2021).

In most celebrations, there is always alcohol, and it is not easy to tell an intoxicated person what to do especially when it comes to adhering COVID-19 protocols, some are immune and ignorant when it comes to COVID-19 (Umbumbulu participant 3, 18 Nov 2021).

The taxi industry, which is the most common mode of transport in many communities, was included in the discussion on easing the restrictions. In prior lockdown restrictions, taxis were not allowed to operate at full capacity. In other words, they were allowed to load up to 50 percent of the taxis capacity and this was gradually increased to 70 percent. However, during the adjusted level 1 lockdown, this was readjusted to 100 percent and in some cases some taxis were reported to also carry overload. During these times, it was almost impossible to observe any of the prevention measures, using hand sanitisers, social distancing and even wearing face masks was not always convenient in a fully loaded taxi. As part of this discussion, participants mentioned the inconvenience that was caused by taxis not being fully operational prior to this adjustment as they had to wait longer hours to get a taxi and that delayed them and sometimes made them late for work. While taxi operation was noted by some participants as one of the indirect hints that the COVID-19 pandemic was over, some welcomed this change as it made their lives easier and made travelling efficient and timely.

There is also sanitising in public transports like in a taxi, taxi drivers used to be strict when it comes to sanitising, and the concept "no mask, no entry' they no longer follow COVID-

19 protocols and when we remember very well only 7 people were allowed in one taxi but now, they taxi must be a full load. There is no social distancing whatsoever (Umlazi participant 2, 17 Nov 2021).

Taxi drivers do not adhere to COVID-19 protocols, and they do things their own way, there are just a few taxis where there are sanitizers but we are not complaining, do you know how many people use taxis? (Umlazi participant 1, 17 Nov 2021).

Alcohol ban and adjusting the rules governing taxi operation during this lockdown level were not the sole changes, there were also a number of unspoken adjustments not gazetted. In the early days of the COVID-19 lockdown and as reported largely in the previous chapter (Chapter 5) on the mandatory compliance sub-section, stores and other businesses had taken it upon themselves to enforce compliance in their businesses. This was seen in a number of instances where there were designated personnel that sanitised customers or people as they entered the shop or building, ensured that all those entering were correctly wearing their face masks and that the floor social distancing markers were correctly followed. During this adjusted level 1 lockdown, stores and some official businesses were also easing these restrictions thereby motivating customers or users to not fully adhere. As reported in the previous chapter mandatory compliance was the main motivation for participants to adhere to the prevention measures but when these were no longer enforced even in places of business, motivation for compliance drastically declined.

I think the store is to blame because they should have someone outside their store that makes sure there is social distancing (Umlazi participant 2, 17 Nov 2021).

It could be because most shop owners do not pay attention to social distancing because they rush to make a profit instead of looking out for their customers (Umlazi participant 1, 17 Nov 2021).

Overall understanding of the lockdown restrictions in terms of the alert levels was that higher lockdown levels meant increased risk, which translated to more efforts to adhere even though this was not always possible. Lower levels represented a decline in the risk of COVID-19 infections, which meant people were also less motivated to comply under the assumption that their risk was significantly lower. A key motivation for compliance was when people were mandated to or would be denied access to services they required as a result of noncompliance. However, when risk

perception is low and compliance is not enforced the weight of the lockdown restriction was perceived to be less which increased noncompliance.

> *When the alert levels are high, it means there is a high number of infected people. When the levels are lower, then there is a low number of infected people (Cato Crest participant 3, 19 Nov 2021).*

> *There is no tight security in terms of making sure that people adhere to the COVID-19 protocols (Umlazi participant 1, 17 Nov 2021).*

> *Having a security at the store will reduce the risk of getting COVID-19, by ensuring that mask is always worn and hands sanitised and being aware that COVID-19 spreads in the air (Umlazi participant 3, 17 Nov 2021).*

Since some participants doubted the relevancy and importance of sustaining adherence to the COVID-19 prevention measures in the context of eased lockdown restriction, they conveniently selected measures that would work for them at any given moment. This was also a similar trend reported in the previous chapter on the adjusted level 2 lockdown in which participants chose restrictions that suited their contexts. Likewise, mask wearing was rated lowest because of the breathing discomfort if worn for longer hours. The inconveniences of wearing masks were noted in all study sites.

> *There are lots of things one cannot do while wearing a mask…You cannot cook with a mask on. Others assist in slaughtering animals, that also, you cannot do with a mask on and many other things of that nature. (Cato Crest participant 1, 19 Nov 2021).*

> *Wearing a mask is really challenging. Sometimes I forget my face mask at home so it is a bit challenging. Unlike sanitising hands and keeping a distance between myself and the next person (Umbumbulu participant 1, 18 Nov 2021).*

> *I think the easiest that everyone can adhere to is regular washing and sanitising hands and social distancing, the wearing of masks is a challenge because we end up finding it difficult to breathe through a mask…It also depends on which type of mask you are wearing surgical masks help with breathing properly as opposed to cloth masks (Umlazi participant 2, 17 Nov 2021).*

Social distancing was not preferred because of the isolation and lack of unity it presented in communities that tended to embrace social unity and this will be discussed in more detail below.

However, what was importantly noted was not necessarily the health challenge of social distancing, this was one of the measures that did not pose any assumed health risks like difficulty breathing in the case of a mask of hand rashes in the case of sanitisers. Social distancing was not preferred because of the socio-economic factors relating to the ability of one to keep the recommended distance in the social settings they find themselves in. This referred largely to communities such as Cato Crest (an informal settlement) where physical space was generally limited and maintaining physical distance was not practical. Social distance inconvenience also related to cultural features and beliefs that communities felt strongly about uplifting as will be discussed in the sections that follow. Traditionally, African societies embrace togetherness and closeness as reported by the study participants, as such keeping distance from each other contradicts these deeply entrenched beliefs and sense of togetherness through physical closeness.

> *I do not follow social distancing on numerous occasions only when I am forced to and I only practise social distance with people I do not know but those that I am familiar with there is no social distancing (Umlazi participant 3, 17 Nov 2021).*

> *It is impossible to social distance in a small house especially if you have a big family, but in some households, it is possible to social distance…even practising social distance outdoors is a challenge (Umlazi participant 2, 17 Nov 2021).*

Easing the lockdown restrictions exacerbated a number of concerns among participants firstly about their ability to comply with the prevention measures and secondly about the importance or relevance of doing so during the adjusted level 1 lockdown characterised by less stringent regulations. The impact of the eased restriction will be explored further in the discussion chapter that follows. The remainder of this chapter explores the cultural and social factors that influenced participants' formulations or meaning making of what COVID-19 prevention meant for them within their own socio-cultural and socio-economics contexts.

6.7 Cultural practices

The COVID-19 pandemic and the subsequent lockdown restrictions prompted a profound shift in cultural practices among communities. Individuals and communities found themselves necessitated to adapt their cultural practices in order to adhere to the lockdown regulations and prevention guidelines. This required communities to reconfigure some of their deeply ingrained traditions to prioritise compliance to the lockdown regulations that were strictly enforced in some

aspects including the conducting of funerals, celebrations and other significant events. The real struggle for a number of participants was grappling with the need to adhere to the prevention measures while preserving the cultural heritage which in most times clashed. Traditional gatherings, religious ceremonies, family celebrations and funerals underwent significant changes but complete compliance was not always guaranteed as communities still felt strongly about preserving certain practices, particularly in cases where minimal repercussions would be endured.

6.7.1 Funeral adjustments

Funerals and other traditional gatherings were discussed at length citing the disruptions endured in conducting these during the time of the COVID-19 and possible cultural repercussions of not honouring to the utmost traditional standards. Similar to the results presented in Chapter 5 during the adjusted level 2 lockdown, participants cited funerals as the most affected traditional practice as they had to adapt how these are conducted. While there were clashes in participants' views as it pertained to timing and activities conducted during a funeral, most still felt the changes imposed by the lockdown were stripping the dignity and uniqueness of true “Zulu” funerals, thereby necessitating them to adopt a Western style of conducting funerals.

The duration of the funerals was significantly reduced from what was socially acceptable to allow community members and families to offer a decent send off to the deceased. Participants disagreed on whether it was correct to adhere to the funeral regulations as prescribed and deviate from the traditional way of conducting funerals. Below are some quotes from discussions in Umbumbulu:

> *Well, I think funerals should be strictly 2 hours. People should be served in takeaways. Within 3 hours, everything should be done (Umbumbulu participant 3, 18 Nov 2021).*
>
> *Can I disagree with the latter opinion; a funeral cannot be finished in just 2 hours because there is a lot that needs to be done. People must prepare a grave that cannot be done in just 2 hours (Umbumbulu participant 1, 18 Nov 2021).*
>
> *Those who prepare the grave can always start early, then everything else can be done within 2-3 hours (Umbumbulu participant 3, 18 Nov 2021).*
>
> *It is impossible. You see after a funeral, there are people who remain behind. I’ll take my family for instance, it is very huge, we are over 60, after a funeral we still stay together as a family…You find that other family members are travelling from far. They can’t just leave*

immediately after a funeral. They will stay for a few days and we will just bond as a family (Umbumbulu participant 2, 18 Nov 2021).

Added to the disagreements, participants cited the most concerning changes they have had to live with because of the COVID-19 lockdown restrictions pertaining to conducting funerals.

When it comes to funerals, we are not allowed to cleanse the body of our beloved deceased, there is no whole night vigil celebrating the life our beloved deceased, they are wrapped in plastics instead of wearing their favourite clothes which they loved while still on earth, these COVID-19 regulations have completely changed our culture and we no longer do things the traditional way best way we know how (Umbumbulu participant 2, 18 Nov 2021).

Opening of the coffin and saying our last goodbyes to our deceased loved one, but that is no longer allowed, instead a picture is put on top of the coffin, times have changed indeed (Umbumbulu participant 6, 18 Nov 2021).

People do not get a chance to bid farewells to their loved ones in cases of funerals. You find that people cannot even attend funerals because of the limited numbers of those who should attend (Cato Crest participant 4, 19 Nov 2021).

While some participants recognised the limitations of conducting funerals during the pandemic and were aware of the enforced restrictions imposed during each of the lockdown levels, there were still non-compliance in a number of these regulations. Preserving the culture of unity and support amongst communities was central in all the study sites as participants emphasised the need to do things right and in a way that portrayed societal support and honoured the deceased.

You really can't chase people away from a funeral just to accommodate the limited number of 50. If my neighbour passes away, I will definitely attend the funeral. That is when you find more people than the expected number of 50 (Cato Crest participant 1, 19 Nov 2021).

The perceived disadvantage of changing the order and traditional way of conducting funerals was the cultural repercussions likely to be suffered by families as a result of not fully honouring their traditions. Some participants strongly believed that there were non-negotiable practices and rituals that needed to be performed at funerals and deviating from these meant that families would suffer consequences in one way or the other.

Let us take an example of someone deceased in the family that there should be an opening of the coffin and cleansing of the corpse, which becomes a challenge in our Zulu culture because the very same person would visit in our dreams asking for a proper cleansing (Umlazi participant 5, 17 Nov 2021).

The government should ease the restrictions so we can do things the right way because one way or another, things do come back and haunt us if things are not done following culture and tradition (Umbumbulu participant 3, 18 Nov 2021).

The fatigue and yearn for things to return to normal was observed during the focus group discussions. Participants showed great concern about the deviation from their traditions and the consequences they would have to bear as a result. Most participants believed that these restrictions challenged the core of their values. Those who believed that the deceased become ancestors who will guard the living in the future felt that incomplete rituals and traditions during the funeral undermine this core belief and meant that they would need more ceremonies in the future to rectify the shortcomings of the funeral owing to the lockdown restrictions.

6.8 Social unity

The values of social unity and communal interconnectedness are amongst the key celebrated cultural values within the study communities. These form the basis of the cultural practices and the way of living upheld within these communities. However, the COVID-19 pandemic and the subsequent lockdown restrictions disrupted these core social values that are deeply ingrained within communities. The mandatory guidelines of physical distancing and restrictions on gatherings challenged the fabric of social cohesion that was discussed as being central within local communities. As communities were faced with the realities of isolation and separation from their loved ones and their support systems, a unique set of challenges arose. These related to the acts of being uprooted from the deeply entrenched culture of collective participation and shared experiences were suddenly limited by the mandatory isolation as stipulated in the lockdown restriction regulations.

It is important because most of us are close to our neighbours and have a good relationship with them, it shows humanity (Umlazi participant 3, 17 Nov 2021).

These challenges were largely observed in communal events and traditional gatherings that necessitated unity but individuals had to adjust to some extent to maintain some level of compliance even though absolute compliance was not possible. Participants commented largely

on the family sizes and restricting gatherings based on the number of attendees created challenges that they found difficult to deal with. In these cases, participants shared that there were no prescribed rules or recommended criteria for selecting the number of family members, friends and general members of the community that should attend any given event. As such, it was impractical to limit the number of people attending an event in the community.

> *Traditional celebrations are often attended by several people, being restricted to 50 maximum people is a challenge because it is something that we are not used to therefore we end up being more than 50 and violating COVID-19 safety measures (Umbumbulu participant 4, 18 Nov 2021).*
>
> *You would give out an invitation to one person and they would pitch with 3 people, and in our Zulu culture it is rude to turn people away when they come to celebrate with us (Umbumbulu participant 1, 18 Nov 2021).*
>
> *Sometimes it is a challenge to choose those 50 guests, you are just not sure who to invite and leave out that is why most celebrations you will find people exceeding the stipulated 50 guests (Umbumbulu participant 5, 18 Nov 2021).*

Attending events represented unity and caring for each other which formed the social fabric of the community. Within the study communities, events that were not well attended by community members and other relevant guests were deemed as failures to some extent. This is because big attendance was associated with a successful event, as such all hosts strived to ensure huge attendance.

6.8.1 Social distance challenging the social fabric of unity

At the core of the cultural values was unity and this was not only characterised by interconnectedness and supporting each other but physical distance and close proximity was among the key features of unity. In a number of instances, the study participants believed that the regulation of social distance challenged the core values of closeness that they believed in and this was explored in the previous chapter. This section specifically presents some events or moments within the lived experiences of community members that necessitated physical closeness either in upholding the cultural values and norms or in showing love and affection to one another. The quotation below presents some of the instances it was culturally and socially impossible to maintain physical distance from each other without scraping the value and relevance of unity in an event or celebration.

I can say that in ceremonies, it is a bit challenging because people usually eat from one dish…our culture demands that people should eat from one dish (Umbumbulu participant 1, 18 Nov 2021).

The study participants also commented on the inconvenience presented by maintaining physical distance. Within their contexts, being in close proximity facilitated discrete and respectful communication with one another otherwise one would be considered shouting and rude. The long-upheld culture of being together was discussed as important when it came to communication as social distancing meant that private conversations would not be possible.

When people are talking, it feels right when they are closer to each other. It doesn't feel right to talk while you are far away from each other so social distance breaks communication (Cato Crest participant 2, 19 Nov 2021).

It is not easy to stay apart from each other. You know people love to chat and embrace each other so we are not used to this (Cato Crest participant 3, 19 Nov 2021).

There were also noted inconveniences of physical distancing in which participants believed that maintaining physical distance in stores or queues exaggerated the length of the queue. Cognitively, this was seen as discouraging for those who were in the queues "It takes up the space…, even when we are in a queue, you find that the queue is short but social distance makes it look long" (Cato Crest participant 2, 19 Nov 2021). While in terms of health wellness, social distancing was more preferred than mask wearing and using hand sanitisers, social distancing was less favourable because of the cultural and social cracks it presented and challenged the core beliefs of unity within communities.

6.8.2 Social stigma

Adhering to the COVID-19 prevention measures inadvertently gave rise to social stigma in many communities. Those who diligently complied to the prevention guidelines including face mask wearing, social distancing and practising hand hygiene found themselves facing judgement from peers and members of the community who held differing beliefs or attitudes towards the pandemic. This social stigma often stemmed from misunderstandings about the relevance and importance of complying to the prevention measures, fear of infection from the virus particularly being infected by those who were overly cautious in adhering to the prevention measures. It also stemmed from misinformation surrounding the virus and its transmission within communities. Those perceived as overly cautious or stringent in their adherence to the prevention measures

were sometimes labelled as paranoid or overly anxious, while others who disregarded guidelines faced criticism for perceived recklessness. The emergence of social stigma further complicated efforts to combat the pandemic within these communities as individuals were more suspicious of guidelines adherence more than they were of the risk of infection in the absence of practising the recommended measures.

There were a number of shared scenarios where it was difficult for individuals to practise any of the prevention measures without facing backlash from peers and in other instances the community at large. Being overly compliant was loosely translated as bearing the disease and potentially a carrier of the disease. In other words, community members were more uncomfortable around people who were adherent to the COVID-19 prevention measures more than those that were not. This discussion stemmed from the idea that at the time of the research, people had lived in the era of COVID-19 for over a year and during this time most were non-adherent to any of the prevention measures yet very few were infected. Non-adherence to the prevention measures was interpreted as the norm within most communities particularly in cases where people did not know of any people that had contracted the disease as a result of not upholding any of the prevention messages. As such, it was difficult to enforce the adoption of the prevention measures without the risk of being stigmatised.

> *In most cases when you tell people what is expected of them and the right thing to do, they always say you think you better, so as much as you want to do good and adhere to COVID-19 protocols people make it difficult for you so the best thing to do is just keep quiet and let them be (Umbumbulu participant 4, 18 Nov 2021).*

> *You would find yourself in a full passenger taxi being the only one wearing a mask, that on its own does raise suspicions as to why you are the only one wearing a mask. To protect yourself from such comments and remarks you end up also taking off your mask before someone concludes that you have the Corona Virus (Umbumbulu participant 1, 18 Nov 2021).*

When participants were asked about their thoughts on whether or not social distancing as a prevention strategy was easy or difficult to maintain, a participant from Cato Crest shared the following sentiments:

I can say both. It is easy but also, it is hard. Easy because you just keep a distance but hard because a person would think you are discriminating against them (Cato Crest participant 2, 19 Nov 2021).

Evidently, there was substantial stigma associated with the prevention measures and adopting any of these was interpreted differently by members of the community. The most discussed interpretation was that individuals viewed over cautiousness about COVID-19 infection as meaning that one is the carrier of the disease. While some showed interest in adhering to the prevention measures, their actions in doing so were not always well received within their communities. With the risk of being stigmatised, the default response was to join the masses and avoid adoption of any of the prevention measures. Moreover, the phenomenon of perceived immunity intersected with broader socio-cultural narratives surrounding health and illness. Cultural beliefs, misinformation, and overestimations of personal invulnerability fuelled the perception that adherence to preventive measures was unnecessary. In some cases, adherence was stigmatised or perceived as a sign of weakness, further reinforcing non-compliance behaviours.

6.9 Socio-economic contexts and adherence

The messages around COVID-19 prevention were met with lived realities of many communities relating to the ability and affordability of practising the prescribed measures. While these measures were recommended from a public health perspective to curb the spread of new infections, the adoption of these in real life settings required a consideration of the socio-economic conditions within the different communities that could either facilitate or hinder full compliance. In the case of this study, participants from different community settings discussed the socio-economic challenges they faced making it impossible or rather difficult for them to be fully adherent.

Given the setting in Cato Crest and Umlazi, an informal settlement and peri-urban area characterised by high populations and high rates of unemployment, it was mostly impossible for people to practise social distancing as the spaces in this community were generally limited. Some participants from these areas believed that social distancing was mainly irrelevant or inapplicable to their communities as the set-up of their living spaces was not conducive to this.

At home or in a household which social distance you could possibly practise?...It is impossible to social distance in a small house especially if you have a big family, but in some households, it is possible to social distance (Umlazi participant 2, 17 Nov 2021).

Affordability was noted among some of the key challenges that enforces non-adherence. While some participants believed that social distancing was difficult given their living spaces and arrangements, adopting this in a conducive environment would have been possible to some extent even if it challenged some of the core cultural values of unity as discussed above. Other prevention measures including the use of hand sanitisers and face masks were seen as costly on the part of the user or consumer, particularly in the context of poverty and high unemployment rates in the study communities. Since some participants felt they could not afford any of the other measures, non-adherence was the only available option for them.

According to my understanding, you would find that there are families who do not afford to buy sanitizers, I think our government need to intervene and help those families by providing a parcel that include sanitizers and masks every month to those struggling families, I believe this would come handy because even in rural areas they are struggling, even Jojo tanks get dirty because of insects and heavy rains, if the government would send people every month to repair damaged Jojo tanks as they come in handy (Umlazi participant 5, 17 Nov 2021).

One thing I do not see more often, is the use of hand sanitizers. I think it is because people must buy hand sanitizers now and then, unlike a face mask. You see, if you have a cloth face mask, you just must wash it, you do not need to buy a new one. A hand sanitizer is challenging especially to those who are not working (Cato Crest participant 5, 19 Nov 2021).

The interpretation of the COVID-19 prevention messages was largely influenced by the local contexts and this informed the decision and ability to adopt these given the socio-economic contexts they live in. This included a consideration of the living arrangements and set-up and what it meant to adopt these measures in a manner that made sense to them and in line with their beliefs and overall capabilities to do so.

Added to the challenges was the idea of habit formation, given that COVID-19 was a fairly new disease that required a number of changes in people's lives. Communities were faced with the challenge of unlearning some of their habits and forming new ones in the process. This largely

referred to changing the status quo and adopting the new ways of living. This of course, did not always translate into actionable steps in favour of the adoption of the prevention measures, however, there was some discussion around what participants thought it would take to change their mindsets towards complying to the prevention measures.

> *Even the homeless people do wear face masks. It is very rare to come across a homeless person not wearing a face mask. Most people I see, they wear even though sometimes they do not wear their masks properly, but they do wear them. It shows that they know the principle of wearing a face mask (Cato Crest participant 5, 19 Nov 2021).*

> *We are not used to it. Face masks are new to us. We only used them occasionally, maybe when we were in a dusty place, so it is not easy to always remember it (Umbumbulu participant 1, 18 Nov 2021).*

The COVID-19 pandemic necessitated the adoption of new habits and behaviours to uphold prevention guidelines recommended by health officials. These measures were essential components of daily life in the fight against new infections. Adjusting to these changes had its challenges communities interpreted and adapted these to suit their local contexts and engaged in conversation of habit formation in light of the new reality of living with COVID-19 at the time of the study.

6.10 Conclusion

This chapter presented findings from the second phase of data collection during the adjusted level 1 lockdown in South Africa. Among the key findings presented in this chapter are the implications of extended COVID-19 lockdown restrictions that influenced people's risk perceptions and urgency to adopt any of the recommended prevention measures. This chapter presented the dynamics that participants and their communities faced in the bid to adhere to the prevention messages and how these were perceived in terms of upholding key social and cultural values within localised communities. The next chapter delves into a detailed analysis and discussion of these findings in order to unpack the relevancy of these findings in understanding the interpretation and adaptation of the dominant COVID-19 prevention messages within local communities.

Chapter 7: Data analysis and discussion

7.1 Introduction

The preceding chapters (chapter 5 and 6) presented data including photos that highlighted the experiences of the communities as it related to COVID-19 prevention within localised contexts. These chapters further presented data from the focus groups discussions that were held during the two-phases of data collection. This data analysis and discussion chapter builds on these data presentation chapters to provide a nuanced interpretation and discussion of the data in light of the study's research questions and existing literature. Adopting a reflexive analysis, this chapter highlights the findings contribution to the deeper interpretation, adaptation and reconstruction of COVID-19 prevention messages as well as the broader understanding of health communication during pandemics.

This chapter begins by integrating and revisiting the core themes identified in the data and contextualises them within broader theoretical frameworks, drawing connections with prior studies. It aims to not only interpret the findings but also to position them within the wider academic discourse, highlighting their relevance and potential impact. Through this synthesis, this chapter underscores the significance of the study's contributions to the field of health communication, setting the stage for a comprehensive conclusion that consolidates the study's overall insights.

7.2 Overview of main findings

Collecting data from two different phases and timepoints of the COVID-19 lockdown in South Africa presented some key dynamics in how communities were understanding and interpreting COVID-19 prevention within their localised communities. Data presented from the first phase which represented the adjusted level 2 lockdown charecterised by reduced restrictions on movement and social gatherings, however, the basic and yet dominant prevention measures were still enforced to a greater extent. During this lockdown period, participants' experiences of COVID-19 prevention were largely captured to align with the dominant prevention measures, hence the data presentation format in chapter 5. Participants' were largely concerned with prevention measures and what these meant within their local contexts.

The images presented for this first phase show the different ways in which people were trying to adhere to the prevention measures and how these clashed with their social and cultural values.

Notably, the act of social distancing was referred to as an “un-African” practice in its nature as it did not embrace the core values of Africanness defined as unity and closeness. Added to these cultural concerns were the perceived health risks associated with adhering to the prevention measures. For example, the use of face masks was associated with difficulties in breathing and hand sanitisers caused skin rashes leading to high levels of bargaining in terms of which measures to adhere to under which conditions. The prevention measures were largely observed in instances where it was mandated to do so as opposed to selective or self-initiated prevention.

The second phase of data collection presented a contrast in how the same COVID-19 prevention measures were understood and how communities experienced these. Given that this was during the adjusted level 1 lockdown - the least restrictive lockdown level in the order of lockdown levels implemented in South Africa. This was presented with high levels of COVID-9 prevention fatigue - and people were more interested in returning to their normal way of doing things. Significant differences between the 2 phases of data collection was that in the second phase there was minimal focus on the actual prevention measures but rather more focus on the social activities and experiences that people were having at this time. Furthermore, while the first phase dwelled largely on how lockdown restrictions hindered or led to some disruptions in how people engaged in important cultural practices, the second phase presented data largely on how communities were beginning to catch-up on all the social and cultural activities they could not fully engage on because of the imposed lockdown restrictions.

7.3 Health communication during a pandemic

As largely discussed in literature, COVID-19 communication had fundamental shortcomings that challenged the full compliance and adoption of the prevention measures including hand washing, physical distancing and mask-wearing. Central to these challenges was the minimal recognition of the cultural and social contexts in which communities exist that influence their health decisions (Williams et al., 2023; Hyland-Wood et al., 2021; Rimal and Lapinski, 2009; Wardman, 2008). Assuming that health communication exists within a “social vacuum” and disentangling COVID-19 prevention communication from the social and cultural contexts presented challenges to the acceptance of these messages as highlighted in the data presented in the previous chapters.

There were a range of prevention messages that challenged the beliefs of many communities including conducting funerals and events during the pandemic. For example, participants strongly believed that physical distancing which motivated enforced restrictions in how funerals were conducted posed significant challenges to African cultures. More specifically, the inability to view,

open and wash the corpse at home before the burial and observing the cultural rituals that were important in ensuring a proper send off and honouring the deceased was problematic in many ways. In Zimbabwe and Swaziland, the movement of bodies between funerals was prohibited and strict instructions were released on how to handle the bodies and hold funerals (Dzinamarira & Musuka, 2021; Shongwe, 2020). These restrictions and instructions prioritised public health safety at the core and not contextual meanings and relevance associated with burials. Furthermore, these regulations significantly altered the manner in which the deceased body is traditionally handled (Buddha et al., 2023). Within the African context, burials are not interpreted as the end of life but rather a passage to start a new life as an ancestor (Khosa-Nkatini and White, 2021). This transition is deeply spiritual and often involves intricate rituals and ceremonies to honour the deceased and ensure they are properly sent off to the afterlife. These rituals are believed to help the deceased become powerful ancestors who can guide and protect the living (Fobella et al., 2023; Falola and Heaton, 2008).

In the same vein, mourning the deceased was viewed by the study participants as a communal effort in which relatives, friends, neighbours and the community at large offer support to the family of the deceased. The restrictions in movement and the limited numbers allowed during burials meant that only close relatives could attend the funerals without or with minimal support from others in the community. This also arguably presented challenges in the manner in which COVID-19 prevention messages were received and exercised. As Khosa-Nkatini and White (2021) argue, among some of the distinguishing characteristics between African and Western cultures is that in the latter, mourning of the deceased and funerals are private family matters, whereas African cultures embrace communal support during the mourning period and the burial. As such, in many African burials, particularly that of an elder, is seen as a social event and attended by a large number of people (Khosa-Nkatini and White, 2021; Baloyi and Makobe-Rabothata, 2014).

Appreciating the immense value attached to burials and similar rituals, the restrictions imposed during the pandemic including limits on gatherings, social distancing, and bans on certain traditional practices disrupted these vital cultural practices. Many families were unable to hold large communal ceremonies or perform customary rites essential for ensuring a dignified and proper farewell. The inability to carry out these rituals not only caused emotional distress but also created a sense of spiritual imbalance for those who believe that neglecting these practices could result in restless spirits or ancestral discontent (Menec et al., 2020; Mudiriza and De Lannoy, 2020). This experience highlighted the tension between public health communication and the

preservation of cultural heritage, raising questions about how such traditions might be safeguarded in the face of future global crises (Alsaqqa, 2022; Porat et al., 2020).

While the restrictions on funeral attendance and procedures were largely communicated, with a limit of 50 attendees during a funeral, some communities did not adhere to this rule thereby resulting to an increase of COVID-19 cases and funerals referred to as “super spreaders” of the virus (Buddha et al., 2023; Kgadiman and Leburu, 2022). Key rituals and traditions observed during African funerals could not be amended to suit the government-imposed way of living. Social separation was difficult to observe and other traditional activities still continued as normal in some parts. For example, sharing food and water; the washing of hands in a single basin upon return from the burial site; and singing at funerals without masks (Kgadiman and Leburu, 2022; Rwafa-Ponela et al., 2022). These non-compliance activities were also reported by some participants in the study noting the difficulties of conducting funerals under restrictive measures. However, for the purposes of this study, it is important to explore “non-compliance” within social and cultural contexts in order to appreciate the local interpretation of these messages and how non-compliance can in the same vein be understood as adaptation and deconstruction of the message to suit local discourses. The section below will provide an analysis that incorporates the notion of how communities adapted and deconstructed the dominant COVID-19 prevention measures in favour of localised and contextualised messaging and prevention.

7.4 Social disapproval and social discrimination

In many African cultures, where unity, communal living, and interconnectedness are deeply valued, the COVID-19 prevention messages advocating for isolation presented significant challenges (Chimakonam and Ogbonnaya, 2022). While the prevention measures were necessary to curb the spread of the virus, the same disrupted the social fabric, leading to unintended consequences. Communities that thrived on togetherness found themselves grappling with feelings of separation and disconnection (Karantzas and Simpson, 2022). Over time, the persistent emphasis on isolation contributed to social discrimination and exclusion, as individuals who tested positive or were suspected of exposure faced stigmatization within their broader communities (Gronholm et al., 2021; Berman et al., 2020). This tension between public health directives and cultural values highlights the need for culturally sensitive approaches to crisis communication and intervention.

The World Health Organisation states that within the context of public health, social stigma refers to a “negative association between a person or group of people who share certain characteristics

and a specific disease" (IFRC, 2020). In the case of a pandemic, individuals may be discriminated against, labelled negatively, treated differently or unfavourable or even lose their social status as a result of an assumed association with the disease. In some instances, individuals who do not have the disease may also be discriminated solely based on their shared characteristics with a stigmatised group (Chopra and Arora, 2020). This was largely evident in the case of Chinese living in and outside China during the outbreak of COVID-19. Since the outbreak of COVID-19 was traced to a city in China, Chinese globally barred the brunt of the COVID-19 stigma, whether infected or merely associated by racial characteristics. The travel bans to and from China during the early stages of the outbreak enforced the stigma to some extent against Chinese. Furthermore, in Italy, weeks before the national lockdown was announced, social and economic activities were continuing as normal. However, sentiments towards the Chinese community were different, Chinese restaurants were boycotted, parents were careful against their children being associated with Chinese children (Miyake, 2021). Within the scope of social discrimination and stigmatisation in health, consequences of being assumed at risk of a disease posed major challenges. While early literature on social stigma associated with COVID-19 was experienced by the Chinese community globally, this soon spread to other communities including African countries. The form and shape of social stigma differed across countries but still met the broad definition.

While commonly documented cases of social stigma related largely to the discrimination and isolation of those already infected by COVID-19 or societies that were largely associated with the COVID-19 outbreak including China (He et al., 2020; Phillipson et al., 2024), this study further found that the adoption of the COVID-19 prevention measures was also among the factors leading to social discrimination. As reported in the preceding chapters, being the only person wearing a mask in a public space was interpreted as acting superior or "better" than others. From the perspective of the person using the mask or adopting the prevention measures, this behaviour could stem from personal health concerns or a sense of responsibility rather than a desire to appear superior. However, misinterpretation was also possible due to biases or assumptions made by those observing the behaviour within the community.

Atinga et al. (2021) argue that a combination of interpersonal trust and social norms within personal, workplace, and home environments weakened compliance with COVID-19 containment measures. As a result, even when individuals displayed clear COVID-19 symptoms, they were often perceived as not having the virus and continued to engage in casual interactions. These behaviours were driven by perceptions of trust and unity, limited understanding of virus

transmission, or misinformation suggesting that following the protocols did not guarantee immunity (Coetzee and Kagee, 2020). This aligns with studies showing that negative attitudes, misplaced social trust, and insufficient knowledge about COVID-19 undermined adherence to public health guidelines (Widayati, 2021). In such instances, adopting the prevention measures at social gatherings or in the presence of others who are not adherent to the prevention measures was seen as being against the norm. As such insisting on carrying out the prevention measures resulted in some form of social discrimination. These findings underscore the complexity of managing social norms and expectations in the context of COVID-19 pandemic.

Though the recommended prevention measures were effective in reducing the spread and deaths associated with COVID-19, these inadvertently exacerbated stigma with communities (Burns et al., 2020). Such communication did not necessarily consider the cultural implications of enforcing the prevention measures as well as the potential for stigmatisation of individuals and communities that are infected and affected by the pandemic. As such, the intensity of public health practitioners in reducing the spread of diseases should also be extended to address or appreciate the risk of social discrimination as a result of the prevention measures. Pandemic communication also potentially requires a package of interventions that move beyond the public health efficacy of interventions but also effectively respond to the unintended consequences of such interventions within localised contexts and what these mean for the acceptance and full adoption of the prevention measures.

7.5 Health communication and risk perception: A delicate balance

Among the challenges to COVID-19 prevention measures adherence as reported in the data presentation chapters was perceptions of risk to contracting the disease and these included personal and communal risk perceptions. In other words, some participants believed they were at minimal risk of being infected by the disease, some believed that they had developed immunity towards the disease and all these factors did not warrant adherence to any of the prevention measures. Despite widespread dissemination of preventative communication, substantial gaps remained in understanding how people and communities perceived their susceptibility to the virus. These perceptions, whether based on misinformation, cultural attitudes, or personal beliefs, played an important role in shaping behaviours and decisions related to adherence.

One of the gaps in literature related to risk perception and health or risk communication was the exploration of how individuals perceive risks to diseases, interpret information provided on managing the risk of contracting the disease and ultimately adopting the prevention measures to

minimise their risk. In the case of KwaZulu Natal and more specifically the research sites, these key considerations to risk perception and risk communication remain unexplored. Similar research does exist in other countries, for example, Heydrai et al (2021) conducted a study in Iran to explore how risk perception mediates the relationship between risk communication and preventive behaviours. Additionally, the study investigated the individual effects of risk communication and risk perception on these behaviours during the COVID-19 pandemic. Their study showed that well-crafted risk communication has the potential to promote risk perception, and in turn when individuals are aware of their risk to a disease they are more likely to receive and act upon the provided risk communication. The findings of this study offer insight consistent with other studies on how individuals form risk perceptions in response to risk communication that subsequently influences their behaviour and responses to the health risk (Ferrer and Klein, 2015; Rezaei et al., 2022; Schmälzle et al., 2017; Khorasani and Mohammad, 2018).

There are also arguably a number of varying reasons that influence individuals or even communities' perceptions of risk to a specific disease. In the case of COVID-19 and as per data presented in this study, participants noted a few contributing factors which included (1) lack of exposure to COVID-19 cases, this included participants who had never been sick of the disease or did not know anyone who had been sick of it (2) perception of immunity to contracting the disease, this related to participants who believed that they were healthy and not at risk of being infected (3) perceptions of natural immunity, this related to the idea that when someone had contracted the disease and recovered, their immune system recognises the pathogen thereby providing immunity against future infection by the same pathogens. Highlighting these factors is important in exploring how these perceptions were broadly formulated and what they mean in health and risk communication during pandemics.

7.5.1 Formulations of risk perception: Lack of information and exposure

During the early days of COVID-19 and well into the pandemic, people relied heavily on media - mainstream and social platforms for COVID-19 information, updates and announcements from the government (Focosi et al., 2021). Due to the urgency of ensuring that related communication about the government's stance and approach to COVID-19 prevention, it was not possible to diversify the communication platforms to ensure a wide reach and ensure tailored communication for all population groups (Hanafiah et al., 2021; Jepson et al., 2023). The media was thus regarded as the most appropriate platform for wide dissemination of information however, social media remains unregulated and the same communication was laced with misinformation that was

spreading very quickly on these platforms (González-Padilla and Tortolero-Blanco, 2020; Islam et al., 2020; Joseph et al., 2022; Huang 2023). Social media was and continues to be a crucial platform for government communication with the public due to its widespread usage, interactivity, convenience, and timely access to information (Sandoval-Almazan and Valle-Cruz, 2021). Historical practices and research indicate that modern governments frequently utilise social media during disasters and crises, highlighting its vital role in early warnings, post-disaster recovery, and reconstruction efforts. For instance, during the H1N1 pandemic, the U.S. Centers for Disease Control and Prevention leveraged social media tools such as blogs, image sharing, and online videos to enhance public awareness (Veil et al., 2011). Similarly, in 2016, governments in four earthquake-affected Italian regions used Twitter to disseminate earthquake-related messages over a period of five months, with content about aiding victims receiving the most attention (Splendiani and Capriello, 2022). This highlights the potential effectiveness of both mainstream and social media communication during pandemics or times of crisis/disaster (Huang, 2023). Maintaining communication in an accessible manner remains important in ensuring that communities are well equipped with information and how to appropriately respond to the situations.

While both mainstream and social media could serve to gather public opinion about a disease or pandemic or actively broadcast or share useful information and recommendations on preventative measures, but generally they tend to be “sensational” which in a number of cases clashes with scientific methods of disseminating information (Facosi et al., 2021; Huang, 2023). The sensationalism of the broadcast information arguably influenced the reception of the prevention communication and the responses thereof. For example, false information about the pandemic could be circulated and rumours fabricated, some information could be used to discredit authorities and scientists (Huang, 2023; Gottlieb and Dyer, 2020; Sylvester, 2021). In this regard, even though there was some information about the pandemic on these communication platforms, it is still possible that individuals' exposure to the disease was still limited. In other words, access to mainstream and social media varied across populations with some communities receiving even less. For example, Umbumbulu, a rural community had limited access to the internet due network challenges in the area which meant that they could not easily access information through social media and other platforms in real time. Whereas, Umlazi, for example, is a township and the younger population had more access to social media platforms. However, the consumption and interpretation of this information varied amongst individuals and communities leading to the reported lack of exposure to the disease or even people who had contracted it or died from it. As

reported on the data presentation chapters, some participants did not believe the information presented to them about the severity of COVID-19. Some believed that the reported COVID-19 related deaths were fabricated since they felt that officials were not being honest and that “all deaths” were now being associated with COVID-19 which they believed was not possible and definitely untrue.

In the midst of doubt in the available information, individuals’ risk perception during the COVID-19 pandemic was profoundly influenced by the limited availability of accurate and detailed information, particularly in the early stages when much was unknown about the virus. This scarcity of data, especially regarding the likelihood of contracting the virus in specific situations, complicated individuals' ability to assess and respond to potential risks effectively. Arguably risk perception in the context of the COVID-19 pandemic was complicated by the fact that information related to the overall risk of contracting the virus, particularly the risk in specific situations, was scarce early in the pandemic when the majority of scientific studies were being conducted. Despite this, several researchers found that many people had a fairly accurate understanding of relative risk when comparing groups with different characteristics, such as the greater risk for older compared to younger individuals (Garfin et al., 2021; Joslyn et al.,2021). However, this cannot be generalised considering the different socio-economic and cultural factors that could to some extent determine the level of access to information and how this is received and processed with local communities. The intersection of limited information intertwined with misinformation that was spreading rapidly on some communication platforms at the time resulted in challenges with how individuals perceived their vulnerability to infection. It can be argued that limited knowledge and even growing mistrust in the available information about COVID-19 vaccine could simply translate to misinterpretation of exposure in which some people could assume they have not experienced it or seen someone dying from COVID-19 because they do not believe the information provided. This group of individuals could likely include those who believed that COVID-19 does not exist. One of the key learnings from these experiences and arguments is the importance of clear and timely communication in managing public health crises.

7.5.2 Formulations of risk perception: Perception of immunity to contracting the disease

This study explored individual perceptions of risk and immunity regarding COVID-19, revealing how people evaluated their personal likelihood of contracting the virus and, in some cases, assumed they were immune to infection. These perceptions were shaped by a variety of factors, including age, health status, and prior exposure to the virus, among others. Such subjective

assessments played a significant role in individuals' decisions around preventative behaviours, social interactions, and overall risk management during the pandemic. Understanding these personal risk evaluations provides valuable insight into the complexities of how people navigated the COVID-19 pandemic and how their risk perceptions influenced their decisions to adopt and adapt the COVID-19 prevention measures.

Communication about certain population groups being at higher risk of contracting COVID-19 often created confusion in broader preventative messaging. Public health authorities highlighted old age and underlying medical conditions such as hypertension, diabetes, cardiovascular disease, chronic respiratory disease and cancer as being among the factors that increase vulnerability to COVID-19 infection (Zhang et al., 2023; Rashedi et al., 2020). Similar infographics as presented in figure 7.1 were common in social and mainstream media highlighting the risk of certain population groups. While this information was critical for prioritising resources and protection measures, it unintentionally led many individuals outside these categories to perceive themselves as less at risk or even immune to infection. This detachment from the perceived danger resulted in a relaxation of preventative behaviours among some population groups including young people. This was evident in this study as presented in the preceding chapters in which the younger participants believed that the older adults could be more adherent to the prevention measures due to their increased risk, further assuming their risk as minimal, particularly with the absence of comorbidities. The overall thereby undermining the universal nature of preventative efforts and potentially contributing to the continued spread of the virus.

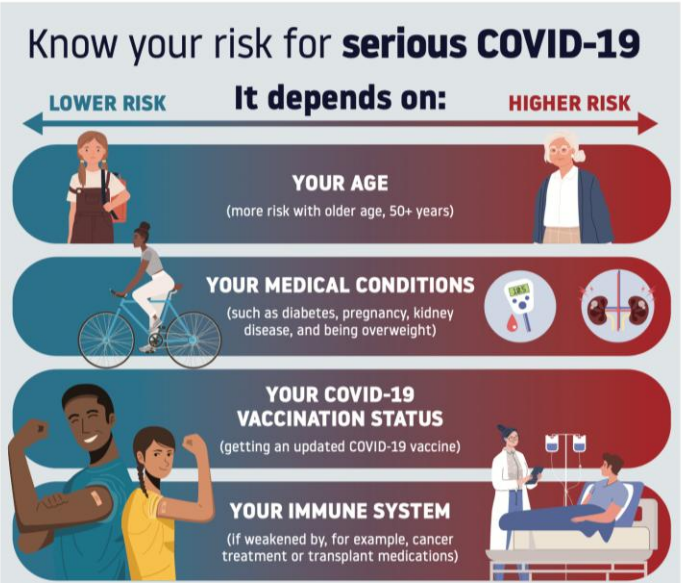

Figure 7.1: COVID-19 risk profiling (CDC and IDSA)

To highlight the complexities in health communication and how these influenced risk perceptions and ultimately the urgency to engage in COVID-19 preventative behaviours, a number of studies share results on this topic. Burger et al., 2020 considered individuals' self-reported perceptions of risk of contracting COVID-19. The self-reported risk revealed the inaccuracies in risk perception, which arose from factors such as unawareness or the tendency for certain groups, like young people or males, to underestimate their risk of infection (Wise et al., 2020). Survey respondents in this study were asked whether they believed it was likely they would become infected (Burger et al., 2020). As expected, individuals with chronic conditions generally reported a higher perceived risk of infection. However, there was evidence of underestimation of risk among those aged 40-54 and overestimation among those aged 75-79.

This discrepancy could have stemmed from conflating the age group's case fatality rate with its infection risk (Burger et al., 2020). While mortality is relatively low among middle-aged adults, this demographic represents a disproportionate share of infections, likely due to higher mobility and workplace exposure. Their underestimation of risk could have also resulted from insufficient information. Alternatively, the higher infection rates in the 40-54 age group might reflect risk-taking behaviours or lower compliance with preventative measures, driven by a lower case fatality rate.

A similar study that examined risk perceptions and uptake of COVID-19 vaccine in the United States found that participants were aware of COVID-19 and the associated risk, however, they tended to underestimate their risk relative to that of others, which the authors highlighted as an example of "optimism bias" (Wise et al., 2020; Sharot, 2011; Vieites et al., 2021). Consistent with findings in other contexts (e.g., Sparks et al., 1995), individuals tended to believe they were less likely to face negative health outcomes than others with similar characteristics (Vieites et al., 2021). This bias is associated with the belief that individuals are less likely to contract a disease compared to others (Brnstrm and Brandberg, 2010). Notably, individuals exhibiting optimism bias are less likely to pursue disease control measures (Brewer et al., 2007). Early evidence indicates that optimism bias is also present in the context of COVID-19 (Kuper-Smith, 2020). Furthermore, beliefs about one's personal risk of infection are strongly linked to greater self-reported engagement in preventative behaviours. As such and similar to this study, participants who portrayed the key features of optimism bias, which includes young people who believed they are healthy, felt they cannot be infected by COVID-19 and that the prevention measures were meant for older adults instead.

Another complexity in health communication during the pandemic was the understanding and interpretation of naturally-induced immunity and what it meant in relation to the continued adoption of the COVID-19 prevention measures. WHO released a scientific brief in May 2021 providing an update on what was known at the time about COVID natural immunity. According to this brief, within a four-weeks period following infection, 90-99% of individuals infected with COVID-19 developed “detectable neutralizing antibodies” (WHO, 2021). In other words, natural immunity is acquired through exposure or by being infected with the actual disease (CDC, 2024). In this case an individual who is immune is less likely to be reinfected because their body recognises the virus and immediately produces antibodies required to fight the infection. While scientific, a few of the participants who had previously been infected by COVID-19 believed that previous infection built resistance to any future infection thereby reducing their need to adhere to the prevention measures. This message was communicated from a public health perspective but minimal consideration was given to the local understanding and interpretation on what this practically meant about the adoption of the prevention measures within localised contexts. There are almost no studies to my knowledge that explore the complexities of similar communication which was important in broadly understanding community responses and adaptation of the prevention messages within localised contexts. It became evident that perceptions of risk and public health communication about risk influenced individual and community’s perceptions of risk towards infection. As stated here, those with low perceived risk were less likely to adopt the prevention measures as opposed to those with perceived high risk.

The findings from this study highlight the delicate balance between health communication and risk perception. A lot of research has been published on understanding the role of health communication in influencing and enhancing risk perception (Schmälzle et al., 2017; Guo et al., 2021; Heydrai et al., 2021). However, research on these topics, particularly regarding how people perceive risk in contexts where information is conflicting is limited. The unintended consequences of some COVID-19 communication shaped risk perceptions in complex ways. For instance, the concept of natural immunity did not exempt individuals from fully adhering to non-pharmaceutical interventions. However, those who underestimated their risk often believed they were immune to infection and, as a result, felt less compelled to comply with preventative measures. The complexities of health communication and risk perception highlight the importance of designing tailored, context-specific interventions that not only focus on disseminating information and adherence but also address the underlying factors influencing risk perception and adherence to health guidelines such as the COVID-19 prevention messages.

7.6 Cultural alternatives

The COVID-19 pandemic highlighted the profound influence of culture on public health responses, shaping how individuals and communities understood, interpreted, and adapted prevention measures within local contexts. As the virus spread globally, public health authorities recommended standardised measures including physical distancing, mask-wearing and regular handwashing. While these guidelines were rooted in scientific evidence and aimed at mitigating the spread of the virus, their implementation and success depended significantly on the cultural contexts in which they were received (Begum et al., 2024; Bwire et al., 2022). Thereby suggesting that a standard approach to prevention is flawed and does not consider the ability of specific cultural groups to adhere as established in other studies (Szatkowski and Aveyard, 2012; Booth et al., 2015; Uwah, 2013; Cao et al., 2020).

Furthermore, culture played an important role in the global response to community engagement, yet the COVID-19 pandemic exposed persistent patterns of cultural insensitivity, similar to the challenges observed during the Ebola outbreak (Airhihenbuwa et al., 2020). During the early stages of the 2014–2015 Ebola crisis, conventional public health messages often failed to resonate with local communities and, in some cases, caused harm by disregarding cultural norms surrounding death. For example, messages such as “When you get Ebola, you will die” or “If someone is sick, don’t touch him” (Airhihenbuwa et al., 2020; Gillespie et al., 2016; Marais et al., 2016) overlooked the deep cultural significance of caregiving and burial practices (Takyiakwaa et al., 2023; Rahman et al., 2024). This was also the case in this study, as participants believed that grieving is a communal effort rather than an individual thing. In other words, there was cultural value in getting support from the larger family and communities in times of grieving. Limitations imposed by the public health specialist on burials and interaction undermined these strongly held cultural values of unity and caring for each other.

To a greater extent culture influenced how people perceived the severity of the pandemic and the legitimacy of recommended interventions (Wang et al., 2022) . In some societies, collective values emphasised communal responsibility, leading to widespread compliance with measures designed to protect the vulnerable (Bok et al., 2021; Han et al., 2021; Na et al., 2021; Cao et al., 2020; Maaravi et al., 2021; Rajkumar, 2021). For example, mask-wearing was swiftly normalised in cultures with pre-existing practices of wearing masks during flu seasons or to combat pollution. Conversely, in individualistic cultures, where personal freedom is often prioritised, resistance to mandates and general prevention measures like mask-wearing or even vaccination was observed

(Kemmelmeier and Jami, 2021; Yu et al., 2021). This was fueled by skepticism toward government interventions or differing interpretations of personal autonomy.

Likewise, religious beliefs and traditions also played an important role in the interpretation and adaptation of the prevention measures. For instance, restrictions on gatherings directly impacted religious practices, such as worship services, weddings, and funerals, which hold deep cultural significance as presented in the chapters above. The imposed restrictions on the number of people who can attend funerals and other gatherings as well as mandated rules on how church services should be held presented challenges in the community's ability to adhere to these measures. In some cases, the technologically advanced communities adapted by leveraging technology to hold virtual ceremonies or by modifying rituals to align with public health guidelines. This was observed largely in cases where church and funeral services could be live streamed. However, this was not the case in all communities, the study sites, particularly the rural and informal communities had minimal access to technological resources to be accommodated through these means but some younger participants mentioned being able to stream services. Nonetheless, to a larger extent adherence to traditional practices posed challenges, particularly when public health measures were perceived as conflicting with deeply held beliefs.

Local adaptations of the dominant COVID-19 prevention measures reflected the local experiences, belief and abilities of the local communities to respond to the COVID-19 prevention measures within their cultural frameworks. During both phases of data collection there was evidence of communities trying to combine their traditional knowledge and cultural beliefs with the public health measures for prevention. The extent to which this was acceptable from a public health perspective is a different topic. For example, while the government recommended that funerals be restricted to a limited number of people attending, in many parts of the study communities, this rule was not adhered to fully, instead people tried to adhere to some other measures, such as wearing masks in some instances. In the same vein, face masks were mandated during both phases of data collection, however, as reported the correct use of face masks was a challenge for some who would just cover the mouth and not the nose. In such instances, the local interpretation of the COVID-19 prevention and the adherence to these was locally understood and adapted for local relevance recognising the cultural beliefs within the localised communities.

Ultimately, the interplay between culture and public health during the COVID-19 pandemic revealed that while prevention measures were designed from a global perspective, their adoption

was highly localised. Understanding these cultural dynamics was essential for tailoring interventions that not only respected local customs but also enhanced compliance and effectiveness. This experience underscores the need for culturally sensitive public health strategies that bridge the gap between global recommendations and local realities.

7.6.1 Localised cultural responses to pandemics

While the effects of COVID-19 were felt globally and required most cultures to adapt their normal ways of life, a growing body of literature from the African continent has explored how the pandemic specifically challenged customary practices and socio-economic realities. Scholars have examined the unique ways in which cultural norms and traditions were disrupted, as well as the socio-economic factors that influenced the effectiveness of COVID-19 prevention measures across diverse African contexts and beyond (Shan et al., 2024; Tang et al., 2022; Falla-Aliabadi et al., 2022; Alizadeh et al., 2023). These studies underscore the necessity of understanding local dynamics to create public health strategies that are both culturally sensitive and effective.

One prominent challenge in adhering to public health measures in Africa has been the presence of deeply rooted structural inequities. For example, in the West Point slum of Monrovia, Liberia, environmental degradation had significantly exacerbated the difficulties of implementing public health guidelines. Over the past decade, sea erosion has reduced the landmass of this densely populated area by 50%, leaving its inhabitants confined to a much smaller space. In such cramped living conditions, physical distancing measures for both Ebola and COVID-19 proved nearly impossible to maintain (Hardeman et al., 2016; Williams et al., 2019). Similarly, considering the structural set-up of Cato Crest, an informal community which was among the study sites, participants reported on the difficulties of adhering to some prevention measures. Participants from this community largely argued that their physical space was not always conducive for physical distancing. Informal settlements in their nature tend to be charecterised by high population density, limited access to water and sanitation, unemployment, poverty and poor health infrastructure and these are arguably all favourable conditions for rapid spread of diseases (Belle et al., 2020). These examples highlight how environmental and infrastructural challenges intersect with public health efforts, demonstrating that individual choices are often constrained by larger systemic factors beyond the control of the community (Airhihenbuwa et al., 2020).

These structural inequities are not limited to the above examples. Across many poor communities globally, systemic barriers such as inadequate access to healthcare, poor housing conditions, and economic disparities have compounded the challenges of responding effectively to public

health crises (Belle et al., 2020; Quaife et al., 2020). During the COVID-19 pandemic, such inequities became even more apparent, as communities with limited resources struggled to access personal protective equipment, and clean water for handwashing. These disparities underscored the importance of addressing the broader social determinants of health when designing public health interventions.

Differences across communities were observed as it related to the socio-economic challenges that greatly informed the community response to the prevention measures. For example, as discussed above, the community of Cato Crest was deeply challenged with maintaining physical distance within their densely populated communities. A different narrative was observed in Umbumbulu, a rural community in which houses are fairly far apart and most households had more than one house in a yard. This meant that most people would likely maintain physical distance. However, there were still economic issues that forced residents from this community to access services, such as applying for food vouchers and social grants. In these settings, they were largely met with long queues and adherence to measures such as social distancing were not always observed. In addition to the socio-economic issues and despite the community and household set-up, this community was largely challenged with making culturally informed decisions related to COVID-19 prevention. In other words, besides the few times where social conditions made it difficult to adhere to the physical space in this rural community could still allow for physical distancing, however, their cultural beliefs and norms were not aligned to these measures. As mentioned earlier, maintaining physical distance was not recognised as being “African”, social unity was a key characteristic in these communities including the peri-urban community of Umlazi. As such, adapting the dominant prevention messages was inevitable among these communities and these adaptations are discussed below.

Airhihenbuwa et al. (2020) argue that COVID-19 mitigation efforts focused on individual behaviours, such as handwashing and physical distancing, must be complemented by structural interventions addressing critical needs like access to clean water, adequate housing, unemployment support, and the ability to work from home, including access to computers and the internet. These structural issues disproportionately affect racial/ethnic and economically disadvantaged populations, who bear the greatest burden of the pandemic (Hardeman et al., 2016). Lessons from past health crises, such as HIV and Ebola (Airhihenbuwa et al., 2009; Richardson and Fallah, 2019) demonstrate that culture plays a crucial role in communication, amplifying positive aspects of lived experiences while addressing negative practices within communities.

7.6.2 Cultural meanings and local adaptations

The study explored the different ways in which the study communities adapted the prevention measures in order to suit their localised contexts. There are however no to minimal studies that have explored local adaptations of these measures considering the cultural and social contexts of the study communities in eThekwini and in the South African context. What is evident in literature is the undesirable bottom-up approach recommendation and communication on COVID-19 prevention. A number of studies point to the shortcomings of this mainstream one-sided communication and how this has affected the adoption of the recommended measures (Yoo et al., 2023; Goulbourne and Yanovitzky, 2021; Matsaganis and Wilkin, 2015). This study went a bit further from these current studies to establish local adaptations of the prevention measures through the lived experiences of the study participants.

While the cultural settings are different, in the United States indigenous black populations initiated COVID-19 communication approaches that promoted cultural relevance and adherence (Airhihenbuwa et al., 2020). This communication ensured that messages carry cultural significance for those who share common values. For instance, despite being heavily impacted by the pandemic, some indigenous communities in the United States relied on traditional knowledge and language to implement their own solutions. These measures include encouraging voluntary individual isolation and restricting access to their territories, while still maintaining aspects of their spiritual well-being. In the same vein the study participants reported on ways that they have adapted the prevention measures to suit their individual needs and local contexts.

7.6.3 Cultural meanings and local adaptations: handwashing and sanitising

While assumed as a basic hygiene practice effective in the prevention of numerous infections or diseases including COVID-19, handwashing is not always an attainable practice within most communities. Using data from multiple countries on handwashing, Pogrebna and Kharlamov (2020) study cross-cultural differences in handwashing patterns. These reveal that some communities are not accustomed to handwashing with data showing that about 50% of people from the 63 countries included in the analysis have not established the habit of automatically washing hands after using the toilet. Their analysis revealed that countries with lower percentages of handwashing habits were more likely to report higher cases of COVID-19 infection. Similar to the case of many African countries, the cultural values upheld in these communities promote close contact and the practice of regularly washing hands could be interpreted negatively, including assuming discrimination towards others in cases where one washes their hands or

sanitise immediately after a handshake (Thaivalappil et a., 2022; Scott and Vanick, 2007). These practices are common in many countries including Zimbabwe as Midzi et al. (2024:8) argue the following:

> "*Culture and the value of maintaining close contacts and relationships were some of the factors that impose a challenge on maintaining social distance and hand hygiene. The communities were not able to practice these preventive measures at funerals, as people were accustomed to hand shaking or hugging as a way of consoling each other for losing a loved one. Even if hand washing facilities were available at some funerals, some people would just forgo hand washing.*"

Findings from these studies aligned with the participants perceptions around handwashing and sanitising arguing that this was not always culturally and socially appropriate in their contexts. The manner of doing things prior to the outbreak of COVID-19 was still upheld and difficult to unlearn in favour of the new regulations. Even though people were aware of the need to wash hands, and tried to adhere, this did not always translate to an actionable practice of handwashing and was arguably not something participants gave a lot of attention to. For example, in the data presentation section, only 2 photos were collected from Cato Crest and Umlazi specifically showing hand sanitising. No photos were collected to represent the act of hand washing. This highlights the order of relevancy of the prevention measures. One can draw from the study findings and considering the socio-economic status of specific communities such as Cato Crest, an informal settlement that do not always have access to water and sanitation (Asivikelane, 2021) and Umbumbulu, a rural community that might also not have access to running water, that participants did not have sufficient resources and the ability to action this prevention measure. The absence or lack of environmental cues (including the availability of hand washing infrastructure) was seen to have affected effective adoption of the hand washing prevention measure as found in a number of studies including Zimbabwe (Midzi et al., 2024), rural and urban slum dwellers in Ghana (Aberese-Ako et al., 2023; Aberese-Ako et al., 2022), slum dwellers in Kenya (Oluoch et al., 2023) and poor communities in Accra and Johannesburg (Durizzo et al., 2021).

Inevitably, discussions on hand washing were largely clouded by the broader socio-economic challenges including infrastructure and resources to facilitate compliance to the practice (Dasgupta et al., 2020). However, while these are important, non-adherence could not be solely accounted for by lack of resources. This study recognised the minimal consideration of effective

ways to diffuse misconceptions about hand washing in communities and reconstruct contextually relevant communication on hand washing for general hygiene and prevention of other diseases.

As an alternative and given that handwashing was often paired with hand sanitising in COVID-19 prevention communication (see example, fig 7.2), study participants reported how they were practicing hand sanitising within their communities. Minimal differences were observed across communities and by age group on this topic. Generally, participants believed that the act of hand sanitising was possibly the easiest to follow amongst all prevention strategies requiring less planning and administration. It was believed to be easy to carry a hand sanitiser when needed, however, this does not withstand the arguments by other participants that they could not afford hand sanitisers. The majority of participants still believed this was easier and more possible. The posters and notices that were available in public spaces served as environmental queues for hand sanitising. Particularly the mandatory sanitisation to gain entry to larger stores and more formal spaces meant that participants were more compliant in these instances with this prevention measure.

Figure 7.2: Hand sanitising poster (SA Department of Health)

While assumed to be easy and adherence to this measure facilitated by the mandates implemented in formal settings (for example entry to stores, banks, etc), hand sanitising was not without its challenges. Personal safety and health were a major concern in which participants believed that the sanitisers were harsh and caused rashes or worsened sinuses for others due to the inhaled fumes. In an analysis of about 60 hand off-shelf sanitisers in South Africa, it was found

that of the sanitisers that contained over 60% alcohol, most contained substances that could irritate the skin (de Bruin et al., 2023). A similar online search found that there were growing incidences of burns and skin irritants caused by alcohol-based sanitisers (Moumita et al., 2024). These studies among others support the concerns of study participants with using sanitisers as part of the prevention package for COVID-19. As such, given the challenges with fully adopting this practice, some participants adopted this measure in different ways.

The posters promoting hand sanitisation to gain entry to certain spaces were set out as nudges or environmental cues people to adopt the behaviour (Tzikas and Koulierakis, 2023; Lawson and Vaganay-Miller, 2019). However, there is insufficient evidence unanimously suggesting effectiveness of this intervention (Elia et al., 2022; Lawson and Vaganay-Miller, 2019; Weijers and de Koning, 2020). However, a key lesson from these studies is the importance of context in the implementation and success of the nudges. In the same vein, the interpretation of similar posters within the study communities was interpreted not merely as prompts to hand sanitise but rather as reminders of mandatory action. In other words, participants complied because the rule was enforced by staff or authorities depending on the context. This further suggests that hand sanitising was likely viewed as a mandated requirement which participants did not voluntarily opt for. The many reported instances of hand sanitising in the study were a result of the mandates and if participants had a choice they would not adhere. As such, within the study communities, the prevention measure of hand sanitisation was likely a result of enforcement but not voluntary.

Since skin rashes due to unknown sanitiser contents, some study participants preferred the option of using their own sanitisers. In other words, when they present at a store or a building that requires hand sanitisation, they would use their own sanitiser instead of the store provided one. This finding suggests the need for contextual flexibility in the recommendation and implementation of prevention intervention to allow for local learnings and preferences that are likely to increase adherence to be accommodated. Cultural adaptation is an important consideration when implementing interventions with ethnic and minority groups (Marsiglia and Booth, 2015). While lessons from previous outbreaks and pandemics have highlighted the need for implementing or adopting culturally relevant interventions, there are still gaps in fully pursuing this approach to health communication and disease management Kirmayer, 2012; Marsiglia & Kulis, 2009). Effective health communication during disease outbreaks and pandemics should recognise the contextual and cultural needs of communities. This finding highlights this need to allow for individuals and community preferences to be considered in such communication and intervention implementation.

7.6.4 Cultural meanings and local adaptations: wearing of face masks

Despite the effectiveness of face masks to prevent the spread of COVID-19 (Howard et al., 2020; Rao et al., 2021), the adoption of face masks has not been universal, with cultural factors playing a significant role in shaping adherence (Martinelli et al., 2021; Tso and Cowling, 2020; Hearne and Nino, 2021). In some societies, wearing a mask conflicted with traditional norms of appearance or was seen as an admission of illness, leading to resistance or reluctance to comply as found in this study. In line with findings from this study, participants viewed masks as barriers to breathing, communication, and social interactions (Bornand et al., 2023), prompting them to develop strategies to adapt mask mandates. The medical benefits were largely overlooked, with masks perceived more as a mandatory requirement by some more than they were a protective measure.

Based on scientific evidence, the use of face masks was extended beyond the health settings where it is traditionally and largely accepted to include the general population that were not familiar with the practice (Martinelli et al., 2021). For example, studies show that the general population was not used to the practice of mask wearing as this was largely reserved for healthcare providers, particularly those working in hospitals and caring for patients with transmissible illnesses (Shean et al., 2010; O'Donnell et al., 2010; Shenal et al., 2012). This prevention measure highlighted the shortfalls in the social and cultural construction of face mask use messages. Such mandates exposed the top-down approach of making general communities to resemble the scientific world. In other words, assuming that behaviours that have high health benefits in the scientific world will also yield the same results within local communities without considering the social and cultural factors likely to influence the adoption of prevention measures and scientific recommendations within localised contexts. Recognising these shortfalls, the study participants adapted these prevention measures for both personal and cultural or contextual relevance.

One of the barriers related to face masks presented in this study and supported by previous studies, is the inability to properly breathe when wearing a mask. A number of participants highlighted this, citing health challenges associated with this measure including the inability of people with certain conditions to cope with wearing a mask. Among these, asthma and heart conditions were mentioned with the elderly presenting more concerns about masks exacerbating breathing difficulties and, in some instances, triggering or worsening underlying heart conditions. In such instances, participants tended to limit the use of face masks to spaces where compliance

was enforced and these included public and formal spaces and excluded any informal settings or when they were within their communities. Narratives captured in another study support these findings showing that the decision to wear a face mask depended on the setting and context with preference being to not wear it (Martinelli et al., 2021). For example, one the narratives presented in their study expressed the following:

> *"As soon as I leave the house and find myself in the supermarket or in public places, I wear a mask. However, I do not wear a mask when I take a walk in the forest" (*extract from Martinelli et al., 2021).

In a study in Japan reviewing tweets on mask wearing behaviours showed that masks were normalised in the Japanese community even prior to COVID-19 which increased the country's compliance with this mandate (Suzuki et al., 2024). However, some of the tweets reported in this study showed evidence of some people wishing to remove or disrupt the mandated use of face masks due to the summer heat which was associated with breathing difficulties during this season (Suzuki et al., 2024). In another study conducted in China, it was found that compliance to mask wearing was largely contextual. This study argues that people tended to wear masks more if they were from communities with "tight cultures", characterised with strict adherence to the prevention measures in public spaces including public transport, indoor shopping malls, crowded subways etc (Wei et al., 2023). Even within this tight culture, the context of practicing the prevention behaviours varied largely based on "tight context" which included shared public spaces where it was critical to be compliant versus loose contexts which included parks and open streets. These differences in compliance are in line with the findings of this present study in which compliance depended largely on the space and whether the measures were enforced or not. In other words, participants were also more likely to adhere in instances where there were officials or designated personnel enforcing the measures in public formal spaces.

A growing body of research has shown that face masks carry social meaning (Bornand et al., 2023; Martinelli et al., 2021). Disruptions to social interactions as a result of wearing face masks was noted as one of the barriers to compliance to the face mask prevention measure. Participants felt that they could not fully interact with each other on various social activities which included traditional or cultural ceremonies, funerals, weddings and other social interactions. It is in this regard that the study participants adapted this measure for suitability while upholding the social and cultural norms to social interactions. The findings of this present study showed that participants removed masks in certain gatherings and in some instances used it to just cover the

chin to allow for easy communication. In Western Uganda, some participants reported taking off their face masks when engaging in conversations, while others mentioned sharing masks with others (Sikakulya et al., 2021).

Decisions about mask-wearing were influenced by social dynamics, personal judgment, and perceived vulnerability. The greater the sense of security—such as being in the presence of close family members—the less frequently masks were worn or worn correctly. Research conducted in Western Uganda found that participants believed that wearing face masks in public spaces provided protection from COVID-19 (Mutsaka-Makuvaza et al., 2024; Sikakulya et al., 2021). While this was also the case for this study, exceptions were observed where people would choose to remove the face mask or incorrectly wear it depending on the contexts they were in. This was largely the case when they had met someone and wanted to chat or as a result of health conditions in which they believed they could not breathe properly.

To overcome these challenges, public health strategies must incorporate culturally tailored approaches. Effective messaging should address misconceptions, reduce stigma, and align mask use with local values and norms. By fostering community trust and emphasising the shared benefits of mask-wearing and disease prevention in general is possible to enhance adherence and mitigate any communication challenges.

7.6.5 Cultural and local adaptations: social distancing

Social distancing as a prevention strategy was reported to challenge cultural norms of unity, closeness and support for each other. This was reported across all the study communities as the overall Zulu culture, regardless of community, required the same values to be upheld by cultural members and communities. A body of literature shows that human behaviours are largely determined by shared community values and norms such as their perceptions of what others in the community are doing and what is acceptable within the community (Cialdini and Goldstein, 2004; Gelfand et al., 2011). A number of studies have also explored how cultural differences can explain the challenges to social distancing. A study in Switzerland found that contextual conditions informed by cultural difference were important in determining how people received and interpreted the social distancing message (Deopa and Fortunato, 2020).

The association between collectivist and individualistic cultures have also been presented to account for some differences observed in the adoption and adaptation of the prevention measures (Hofstede, 2001; Harrington and Gelfand, 2014). Studies on culture argue that within collectivist

cultures, community values and needs are prioritised over that of an individual which increases the likelihood of these communities to adhere to social distancing measures as a social responsibility to protect others (Card, 2022; Gelfand et al., 2021; Jiang et al., 2022; Kamp et al., 2023). Whereas the opposite is argued within individualistic cultures that tend to honour personal freedom, within these cultures practices such as social distancing are less adhered to. While these arguments are based on scientific research, this study presented a different perspective to the worldview understanding of collectivist and individualistic cultures and how they explain the uptake of health and prevention messages. The study communities of Umbumbulu, Umlazi and Cato Crest can by definition be arguably considered as collectivist cultures because they generally abide by collective duties. In other words, societal values and responsibility towards others is key more than it is about individual rights.

In this study, it was observed that participants did not always adhere to social distancing because this did not align with their values and these are not personal but shared values. Within the standard definition of collectivism, the study communities met the criteria to be considered as a collectivist culture. However, the arguments in literature about increased adherence to prevention measures within such communities was not found to be the case in some instances. Instead, one can argue that social and cultural acceptance within these communities influenced the decision to adhere or not. As a collective, it was not out of the question that people would avoid social distancing in instances where this was not enforced and thus as a community avoided the practice. It can also be argued that cultural contexts are key in understanding the values and likeliness of communities to adhere to the prevention measures. This study corroborates the finding from Borg (2014), Gaygısız et al. (2017) and Huynh (2020) that the cultural values and determinants play a crucial role in informing behaviour and responses to health interventions. Core cultural values that are likely to influence behaviour be embedded in public health communication to increase the relevance and acceptance of health interventions.

Similar to how face masks and hand washing measures were interpreted and adopted in the study communities, social distancing was also context based. Participants believed that social distancing was important but this depended on whether they were outside either communities and in spaces such as shopping centres, clinics, government buildings. When they were in less formal spaces or within their communities they were less likely to practice social distancing. The decision to be selective of spaces to practice social distancing was also influenced by the need to maintain sociality within communities. Maphosa et al. (2024) presents evidence from Botswana and Zimbabwe on the impact of social distancing on human sociality. They argue that within the

context of Botswana, social distancing and isolation challenges the essence of societal values, particularly when considering the upheld values of “ubuntu”. Similar to findings of this study, funerals are traditional community events that include not just the family but the neighbours, church and community at large (Werbner, 2018). Close proximity white embracing comforting others defines the support provided during funerals and similar events.

The interchangeable use of the terms social distancing and physical distancing has arguably caused lack of clarity on the meaning and adoption of the measure. Dungdung (2020) highlights that policy language is sometimes chosen without careful consideration of the meaning and expected actions and outcomes. This can cause confusion and unintended outcomes, as language influences behaviour to some extent. Since the onset of COVID-19, health experts have promoted "social distancing" as the most effective method to curb infection rates. However, the term “social distancing” did not encapsulate the intended meaning (Das Gupta and Wong, 2020) as the expected action was in fact physical distancing. Recognising the challenges with the understanding and interpretation of the term, WHO provided clear distinctions between the terms, physical distancing referred to individual distancing defined as “an act of keeping distance or space between one person and another especially if they are coughing, sneezing, or have a fever” (WHO 2020). This included maintaining the recommended physical distance of at least one metre between individuals and practicing non-contact greeting and other individual safety measures. Whereas, social distancing referred to “community distancing and is a set of interventions or measures taken to prevent the spread of a contagious disease by maintaining a physical distance between people and reducing the number of times people come into close contact with one another” (WHO, 2020). This included keeping a specified distance from others and restricting large gatherings. Though there are some overlaps in the distinction between the two definitions, within the study communities the distinction was not always clear and was not explored in detail. However, the study participants within the varying communities were observed to have forged their own culturally relevant definition of the term and this included setting specific conditions on when social distancing was possible or when to practice it. These included social distancing in public settings where it is enforced but not in social events such as burials, weddings, traditional ceremonies and others in line with the cultural norms.

Considering the socio-economic challenges in South Africa that affected the adoption of the prevention measures, social distancing was not spared. In crowded settings such as Umlazi and Cato Crest, it was in real terms difficult to practice social distancing because of the physical space and housing. Jansen and Madhi (2022) poses a critical question on “how to do social distancing

in a shack". This article highlights the living challenges in poor communities and how biomedical science does not consider these important social contexts in health interventions as these determine people's abilities to adopt and adhere. While the social context poses real challenges to health prevention, the study participants did not dwell much on the space challenges as it related to social distancing as some believed that it was not necessary to social distance when they were in their homes or immediate community. Furthermore, some participants interpreted the use of face masks to be a substitute for social distancing in certain settings. For example, when in crowded areas, masking up could be a sole effective intervention. Overall, it was in very few exceptional cases where participants believed in the adherence to all three dominant prevention measures at once. There was evidence of weighing options and based on convenience and circumstances choose the most relevant intervention to adhere to.

7.8 Conclusion

This chapter presented a discussion of the study findings highlighting the complexities of health communication during pandemics. While tons of research have highlighted the challenges with top-down approaches to health communication, the COVID-19 pandemic continued to adopt a similar approach thereby presenting challenges to the acceptance and adoption of the prevention measures. This chapter highlighted key discussions on the interpretation of the COVID-19 prevention messages within localised contexts which included how adherence to the prevention measures led to unintended consequences such as social stigma and discrimination. It further explores literature on the formulations of risk perceptions and how this related to the study findings, arguing that assessments of risk within contextual settings informed the interpretation and reconstruction of the COVID-19 messages. Lastly, the chapter discusses how the dominant prevention messages of hand washing, social distancing and mask wearing have been reconstructed to create localised responses and draws evidence from literature to further substantiate this discussion. Overall, it is evident that cultural context cannot be isolated in health communication as individuals within a community draw upon shared meanings and interpretation in making health decisions. It is therefore imperative to consider the complexities of disease prevention within localised contexts to understand the cultural factors that influence decision making and ultimately the adoption of health measures.

Chapter 8: A socio-cultural approach to pandemic prevention

8.1 Introduction

The scientific approach to public health crisis communication based on understanding diseases and communicating prevention measures from a public health perspective often does not account for the different contextual settings in which diseases occur. Evidence from years of research have shown the shortcomings of a top-down approach in the management of diseases as these overlook social and cultural contexts in which individuals make health decisions to adopt the recommended prevention measures or not. While recognising that disease outbreaks usually come unplanned and from a public health perspective the priority is always about implementing measures to control the spread of the disease and making large investments on clinical trials to find treatments. Decades of outbreak and pandemic management both globally and in Africa, has laid a solid foundation for considering comprehensive communication approaches on disease prevention that appreciates local cultures and settings. It is important to continuously explore various ways in which community responses to outbreaks can be incorporated in public health communication in order to increase adoption of these within local communities.

In the context of COVID-19, this study explored how communities in EThekwini understood, interpreted and adapted the dominant prevention messages that included hand washing, social distancing and the use of face masks. Evidence presented in literature (chapter 2) and findings of this study (chapters 5 and 6) highlighted the important role of culture and context in health communication and in the adoption of prevention measures within communities. The analysis chapter (chapter 7) further provided evidence in favour of a bottom-up approach in pandemic communication, highlighting the different ways in which people make sense of the prevention measures within their contexts and how these were adapted for suitability. While, from a public health perspective it can be argued that some local communities struggled with adherence, this study moved beyond what is scientifically right to consider local adaptations of these prevention measures as an alternative to dominant discourses.

Adopting a culture centred approach and grounded within the participatory research approach, this specific chapter presents the unique knowledge contribution of this study to the field of COVID-19 communication. It focuses on the localised reconstruction of the prevention measures in order to formulate localised and contextual relevant responses to the pandemic. This study proposes a social science approach to pandemic communication.

8.2 A Culture-Centred Approach to reconstructing pandemic communication

The Culture-Centred Approach was adopted in this study as a lens to understand the local interpretation and reconstruction of the dominant COVID-19 prevention messages in EThekwini communities during the national lockdown periods. This approach moves beyond the typical, Eurocentric and individual-focussed approaches to health communication and promotion by emphasising that individuals exist within social and cultural environments where collective decision-making and shared responsibility for health issues are essential (Dutta et al., 2013; Dutta et al., 2017; Dillard et al., 2018). This perspective recognises that cultural contexts shape individuals' decision-making abilities and that a one-size-fits-all approach in health communication and promotion sidelines the voices of local communities. This was evident in this study as communities attached contextualised interpretation of the prevention measures and culture was central in determining their adaptation of the measures.

The CCA places culture at the core of health programme development and underscores the importance of understanding people's values and beliefs about health within their own contexts. Individuals do not make health decisions in silos, detached from their contexts, thus necessitating the need to create spaces to appreciate the meanings that communities collectively attach to disease prevention and their agency to act within localised contexts. The CCA advocates for creating spaces where marginalised voices can engage in meaningful dialogue (Dutta, 2008), thereby promoting a bottom-up approach to addressing health concerns, encouraging collaboration between subject specialists and communities to foster mutual learning (Dutta & Basu, 2011). It seeks to integrate the marginalised voices of subaltern communities with dominant discourses that typically make decisions on their behalf. By fostering interactive engagement, the CCA aims to understand the lived experiences of local communities and the health meanings they attribute to these experiences (Dutta, 2008, 2011). It is imperative to understand findings from this study through this comprehensive lens that recognises culture and cultural meanings in health communication.

The CCA presents an interplay of three constructs: culture, structure and agency. This study focussed mainly on culture and agency in order to understand the localisation of disease prevention strategies and responses thereof. In the context of this study, culture refers to the shared beliefs, values and practices of the study communities and how these played a role in constructing cultural meanings and responses to the COVID-19 pandemic and its prevention measures. Structure refers to policies, political and economic systems that govern how resources

are organised, including those related to health. While agency referred to the ability of communities to enact and integrate their beliefs, values and recommendations in response to the pandemic. Effective responses to pandemics are rooted within communities, grounded in localised decision-making and collective negotiations of the structural realities of the crisis (Dutta et al., 2020). Adopting a culture-centred approach plays a central role in organising these responses by leveraging the agency of communities to identify challenges and develop solutions through the continuous creation of dialogic spaces that amplify community voices (Dutta & de Souza, 2008).

There is limited research that explores the local and cultural interpretation of COVID-19 prevention, particularly within eThekwini communities. There is even less literature on the local reconstruction of prevention messages within communities to create localised responses to outbreaks and pandemics. This study set-out to fill this gap in literature by contributing to knowledge on the importance of culture in the localisation of disease prevention measures including COVID-19. Realising that disease outbreaks can also be expected in the future, this study sought to contribute to the consideration of local cultures and contexts in future pandemic preparedness efforts. This study aimed to answer the following research questions.

- How did various rural, informal and township residents understand and interpreted the COVID-19 prevention messages during lockdown period?
- How did rural, informal and township communities re-construct the dominant COVID-19 prevention messages during the lockdown period?
- How can a people's science response advance the future of disease prevention messaging beyond COVID-19?

The first and second research questions were addressed in preceding chapters (chapter 5-7) that presented findings and analysis on how communities interpreted the COVID-19 prevention messages and how these were reconstructed for localised responses. These chapters emphasised the local interpretation of COVID-19 prevention messages in ways that resonated with specific cultural contexts. The findings strongly indicate that context played a critical role in shaping the understanding and interpretation of the prevention measures. Cultural members often faced challenges when scientific prevention guidelines clashed with their traditional values and beliefs. Additionally, structural challenges in various communities significantly influenced their ability to adopt these measures effectively. The lack of adequate resources to support or sustain

preventive practices made it difficult for communities to comply fully. As a result, adherence was largely determined by what was both feasible and culturally acceptable. For instance, social distancing, while a key prevention measure, was often perceived as isolation within certain cultural frameworks and, in some cases, led to social stigma. Consequently, in response to mandated enforcement of these measures, communities adapted and reconstructed them to align with their local customs and traditions, as explored in Chapter 7. This specific chapter sets out to address the final research question of this study on how a people's science response can advance the future of disease prevention beyond COVID-19. This considers the important role of culture in disease prevention and how structures can be enabling for cultural members targeted with the prevention messages.

8.3 Attaching cultural meanings to COVID-19 prevention

Culture is deeply embedded in the local context of community members, serving as a platform for negotiating health-related meanings (Acharya & Dutta, 2013). It provides a framework through which health is communicated and understood, recognising that individuals interpret health issues based on cultural factors such as beliefs, values, and practices (Dutta, 2016). These cultural elements are specific to particular contexts, meaning that the understanding of health varies across different communities due to their unique cultural backgrounds. As established in this study, cultural communities interpreted the prevention measures in various ways that made sense for their contexts. Furthermore, Dutta et al. (2016) emphasise that the interpretation of health within a cultural group is not fixed but evolves over time. Communities continuously reshape their perspectives on health challenges through lived experiences and ongoing discussions. As a result, health meanings change in response to various factors, including shifting perceptions of vulnerability to specific health issues. The significance of culture lies in its role in fostering dialogue among community members, influencing how they make sense of health concerns and the interventions proposed to address them.

While the biomedical sciences are important in disease prevention to curb the spread of new diseases, the social and cultural factors are equally important as communities rely on the cultural learnings and interpretations to effectively respond to diseases. The recommended prevention measures of hand washing, mask wearing and social distancing were challenged by cultural understanding of what prevention meant for local communities. To enhance the understanding and incorporation of cultural voices in health communication and disease management, this study

draws on the CCA to propose key questions to be considered in the design of health interventions meant to benefit communities within their local contexts.

Culture	Structure	Agency
Has the local culture been considered in health intervention design?	Do cultural members have the resources to adopt the recommended prevention measures?	Do cultural members have the ability to adopt the health intervention?
Who was consulted within communities to understand cultural values, beliefs and practices as well as how these align to health messages?	Who within the community can provide support to cultural members to adopt the prevention measures?	How do cultural members perceive their risk to disease infection to warrant adopting the health intervention?
Are the interventions culturally sensitive to the needs of the cultural members	What is the role of traditional or community leaders, churches, and other structures in supporting the uptake of the prevention measures?	Are there alternatives that cultural members can adopt within their localised contexts?
Do the health interventions exhibit cultural awareness?	Is it within the communities' means to adopt the prevention measures	Is there flexibility in the adoption of the health interventions?

Table 8.1: Considerations for contextualising disease prevention

Cultural relevance in health intervention development is critical as established in this study and existing research (Bautista-Gomez et al., 2024; Napier et al., 2017). Even with this research, there are still considerable gaps in understanding how culture can be incorporated in health interventions and programme designs in order to best benefit the targeted populations. The table above presents a set of questions that can guide researchers and programmers in understanding how culture can be intentionally considered in health intervention designs. It is important to ask the most basic question on whether the local cultures have been considered in the design of the interventions. For more focussed interventions, this is likely to yield more results if focussed at specific communities and not adopt a provincial or national stance in understanding culture (Ernst, 2005). Furthermore, to ensure cultural relevance of the health interventions, cultural members must be engaged throughout the process to provide insights. This can be achieved through adopting participatory based approaches in the design and communication of health interventions. Representation of cultural members is critical in reducing health disparities and reaching sub-

cultural groups. Barrera et al., 2013 proposes that evidence-based health interventions can be culturally adapted for local relevance.

This can be achieved through engagement with cultural members and ensuring that cultural sensitivity and awareness is maintained. Penna (2022) presents an intercultural communication competence diagram that shows the interaction between cultural awareness, which is knowledge of the culture, cultural sensitivity, which refers to the attitudes towards the culture and lastly, cultural effectiveness which is the skill incorporating both cultural competency and proficiency. In the case of the study, research the practitioners adopting this study's proposed approach to prorating ting cultural contexts need to engage with cultural members to understand the culture and appreciate its differences and complexities and be sensitive in the manner that they accept or act upon these differences and cultural nuances.

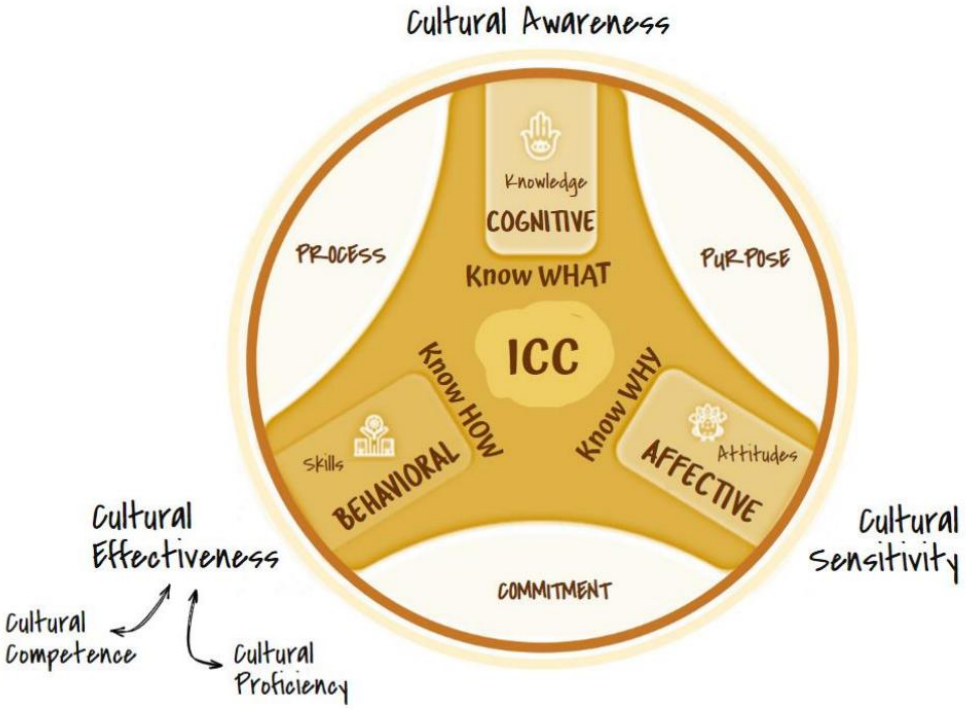

Figure 8.1: Intercultural communication competence diagram (Penne, 2013)

The next set of questions are related to "structure" and these focus on the resources and support structures within their communities to facilitate the adoption or engagement in health interventions. A number of studies have shown that the availability of resources influences the uptake of health services, since individuals and communities feel empowered to do so (Bategereza et al., 2021; Mash et al., 2010; Dutta et al., 2020). It is therefore important to consider

what resources are available within local communities, what structures are available within the communities to support the adoption of the planned interventions and these structures may include among others, traditional or community leaders, religious leaders, health facilities and others. Realising what communities have is critical in this assessment because cultural members draw on these in making health decisions.

Finally, it is imperative to consider the ability of cultural members to engage in health intervention or adopt prevention measures. This considers the interplay between structure and agency in the adoption of health interventions making it critical to question the inherent ability of cultural members to engage. This study has also found that perceptions of risk also influence the ability and urgency for cultural members to engage in health behaviours. When individuals perceive their risk to be minimal, they tend to be less interested in adopting preventative interventions. Thus, understanding their risk perceptions is important in determining the ability and willingness to engage. Furthermore, this study has also seen that participants adapted the prevention measures to suit their local contexts even though this was regarded as poor adherence or compliance from a public health perspective. From a social and cultural perspective, it is critical to question the adaptability of the health interventions to suit local contexts in order to be proactive about possible localised responses and adoption of the interventions.

This list of questions is not by any means comprehensive but rather proposes an intentional consideration of the local and cultural contexts in disease prevention and health intervention development and communication. These can be used alongside existing frameworks and models to narrow the focus onto the cultural applicability and relevance of measures and communication to localised contexts.

8.4 Structure and agency in disease prevention

Understanding COVID-19 communication within the study communities in EThekwini through a CCA framework involves exploring how individuals and groups construct meaning around health and pandemic-related issues. This perspective highlights the ways in which people interpret and respond to health risks, particularly COVID-19, within their specific social and cultural contexts. Additionally, it acknowledges the role of structural factors and policies in shaping the extent to which communities can exercise their agency in managing and mitigating these risks. By understanding these dynamics, researchers can gain deeper insights into how communication practices influence public health responses and community resilience during crises (Adekunle and Mohammed, 2022).

Structure is a fundamental construct that shapes how communities navigate health challenges, particularly during the COVID-19 pandemic. Specific structural settings that were explored in this study include mainly resources such as access to hand washing infrastructure (running water, availability of hand sanitisers, hand soaps) and the physical space to social distance in overcrowded spaces such as in the informal settlement of Cato Crest and in cases where people lived in overcrowded houses. For many cultural communities, these limitations were not just personal but deeply tied to systemic inequalities that shaped their lived experiences (Midzi et al., 2024). Without sufficient handwashing infrastructure or the physical space to isolate, individuals had to rely on culturally embedded coping strategies, such as collective communal decision-making, to mitigate risks. Understanding these structural barriers within specific cultural contexts is critical for designing responsive, locally grounded public health interventions. Rather than imposing one-size-fits-all solutions, a culture-centered approach emphasises co-creating strategies with communities, leveraging their knowledge and existing social structures to develop sustainable and culturally relevant prevention efforts.

Despite these structural challenges, community agency was actively demonstrated as individuals and local groups mobilised their cultural knowledge to bridge gaps in prevention uptake through the reconstruction of the prevention measures. As a construct of the CCA, agency refers to the ability of individuals or communities to interact with, interpret, and navigate the cultural frameworks and structural conditions that shape one's social reality (Basu, 2010; Basu and Dutta, 2008; Sastry et al., 2021). It acknowledges that despite structural constraints, individuals and communities actively navigate their realities to create solutions that align with their lived experiences. In the context of COVID-19 communication and prevention, agency was evident in how communities adapted public health messages to fit their cultural narratives, reconstructed and adopted locally relevant prevention strategies. The agency of communities to adopt health measures is not a scientific process but rather relies heavily on local contexts. Recognising and supporting this agency is crucial for effective public health interventions, as it ensures that solutions are not only top-down but also co-created with communities in ways that are meaningful, practical, and sustainable.

8.5 Disease prevention within context

Health interventions including prevention measures are most effective when they consider the contextual factors such as cultural beliefs and values as well as the structural factors that influence health decision making (August et al. 2006; Kliche et al. 2004). The indiscriminate transfer of

health interventions and standardisation of health messaging from one context to the other challenges the adoption and effectiveness of these interventions (Plaumann et al., 2011). In 2015, recognising the significant role culture plays in health and well-being, the WHO Regional Office for Europe established its first expert group dedicated to exploring the cultural dimensions of health (Napier et al., 2017). This initiative was driven by increasing evidence suggesting that even the most advanced medical care can be ineffective if it does not align with the values and needs of the communities it serves. The output from this work were a range of policy considerations that were aimed at expanding the evidence-base on how cultural contexts influence or inform health and well-being. However, the COVID-19 pandemic has shown persistent gaps in the application of these to global health messaging in times of outbreaks and pandemics. Communities in EThekwini uphold shared cultural values and beliefs that are important in their health making decisions, attempts to isolate these values and beliefs in health communication and disease prevention measures during COVID-19 did not create a conducive environment for effortless adoption and intervention sustainability.

This study recognises that cultural contexts are inherently complex and cannot be solely defined by race and region but rather require understanding the shared values and practices within local contexts. Assuming that the adoption of the prevention measures would be equally adopted was problematic as cultural nuances highlight cultural differences even in cases where there are assumed national or regional shared values and practices. Appreciating these cultural nuances and differences is essential in shaping effective health interventions and the acceptance thereof within local communities for a number of reasons that can also be aligned to this study.

Firstly, recognising cultural contexts highlights the relativity of values often assumed to be universal (Osterman, 2021; Reichert et al., 2006). This awareness encourages critical reflection on deeply held beliefs and challenges assumptions about what contributes to better health for all. Secondly, it helps illuminate the interconnected nature of various determinants of health, including socioeconomic status, environmental factors, age, gender, religion, sexual orientation, and education level (WHO, 2013; Dyar et al., 2022). While marginalisation and social exclusion are significant risk factors for illness, cultural awareness can serve as a protective factor, fostering resilience in an ever-changing world. Thirdly, because healthcare systems are built on shared values, understanding cultural contexts enables the development of care models that extend beyond purely biological and medical considerations. Lastly, differing health beliefs, value systems, and attitudes toward resource distribution can either support or hinder health equity. Therefore, cultural awareness is crucial in ensuring fair and inclusive access to healthcare. These

factors above unanimously point to the importance of contextualising health programmes and interventions to align to the needs of the targeted communities.

In the same vein of highlighting the importance of contexts, this study contributes to the debate on contextualising health interventions to ensure their local relevance by challenging the common dichotomy between Eurocentric and Afrocentric approaches. It argues that moving away from Eurocentric, individualistic frameworks (Johnson and Van Schalkwyk, 2022) does not automatically justify adopting an Afrocentric approach as a universal alternative. Instead, the study highlights the complexity of social, structural, and cultural factors that influence health decision making and the ability to adopt preventive measures, even within South Africa. Given the country's diversity, a one-size-fits-all approach is ineffective, as interventions may not always be applicable across different local settings. For instance, a number of studies conducted in South Africa showed that vulnerability to COVID-19 infection differed by socio-economic status and the ability to adopt the prevention measures also differed with those from well-off communities who thrived better than those from low socio-economic communities (Shifa et al., 2022; Swart et al., 2022). This study examined three communities with varying socio-economic backgrounds and found that, while the differences on how COVID-19 prevention messages were applied across the study communities were subtle, they nonetheless underscored the need for nuanced, context-specific health strategies.

To further highlight the contextual differences within South Africa, Shifa et al (2022) developed a COVID-19 vulnerability index, which captured health and social risk factors associated with COVID-19 exposure and risk. The factors captured on table 8.2 below highlight lived realities of many South Africans in varying contexts, thereby emphasising the risk of masking disease prevention under the big banner of thinking of national cultures as representative of local contexts.

Vulnerability Indicators	**Secondary attack rate level**	**Scientific reason for vulnerability**
Large household with six or more people	Household	Within large households, an ill person was likely to infect others.
Older adults 60 years and above living with young people	Household	Older adults were at increased risk as they likely to be infected by young people in the household who consider their risk minimal
Overcrowded household with more than three people	Household	Isolation and social distancing was difficult within an

per room.		overcrowded household where a small space is shared.
No refrigerator	Household	Those living in households without a refrigerator could not store food in the house and made regular trips to the shops, thereby increasing their risk of infection.
No access to handwashing facilities and lack of soap for handwashing.	Household	Lack of access to water, soap and sanitisers was associated with risk of infection.
A household member with a chronic health condition.	Household	Individuals with chronic health conditions were more likely to suffer from a more severe COVID-19 infection and remain infectious to others.
No access to a radio or TV	Household	Without access to reliable information through mainstream media limited access to correct information and increased individuals' susceptibility to misinformation.
Sharing a toilet with other households or not having a toilet facility.	Wider community	Sharing a toilets increased the risk of contracting COVID-19 from infected people either through toilet seats or while queuing.
Water source not in house or yard/plot of dwelling.	Wider community	Collecting water from a public supply increased the risk of catching COVID-19 from infected people in other households due to close contact while queuing to collect water or touching contaminated water supply equipment.

Table 8.2: COVID-19 vulnerability indicators (Adapted from Shifa et al., 2022)

While this table presents the reality of many poor communities in South Africa and how they were at risk of COVID-19 infection, it does not specifically capture the cultural diversity within communities. Disease susceptibility and prevention can be partly explained by socio-economic factors similar to the ones presented in the table above, however, local cultural values, beliefs and practices also add to the list. A more detailed understanding of local communities beyond the widely accepted definitions of what culture within a community means, is required to fully capture

the local cultural values, beliefs and practices of communities within their own specific local contexts instead of a broader approach that assumes a broader application of culture. For example, while global research and interventions may not be a good fit for Africa or even the South African context, attempts to consider and adjust global health interventions based on the socio-economic and cultural needs of South Africa as a nation still do not capture the more granular and local needs of communities. This study recognises that even within broader shared values and health meanings more local contexts provide more interactive spaces where health meanings can be communicated, interpreted and understood. As such this study does not assume that it comprehensively presents the localisation or even the cultural contextualisation of COVID-19 prevention measures across all communities but rather aims to highlight some key areas to consider in research that seeks to contextualise health interventions.

8.6 Broadening the culture of collectivism

Chapter 2 of this study discusses the differences between collectivist and individualistic cultures and presents various studies on how these have been applied in disease prevention and in the general uptake of health interventions (Hofstede, 1980; Her and Joo, 2018; Darwish and Huber, 2003; Santos et al., 2017; Zha et al., 2006). More specific studies are also presented that highlight the differences in the adoption of the COVID-19 prevention more specifically (Bayeh et al., 2021; Mehta et al., 2023; Harunavamwe and Palmer, 2020). In essence, literature states that individualistic cultures are defined by independence and personal freedoms in the main, whereas within collectivist cultures, interdependence and social responsibility is emphasised (Fatehi et al., 2020). Research on collectivist and individualistic cultures suggests that the adoption of health interventions varies based on underlying cultural values. Collectivist cultures, which prioritise social responsibility and community well-being, tend to show higher adherence to health measures as individuals feel a duty to protect others (Hofstede, 1980; Her and Joo, 2018). In contrast, individualistic cultures emphasise personal freedom and autonomy, often leading to lower compliance, as individuals prioritise personal choice over collective responsibility (Darwish and Huber, 2003; Santos et al., 2017; Zha et al., 2006). However, as presented in chapter 7 (data analysis chapter), in the case of this study, the COVID-19 pandemic altered the standard application of these concepts in making meaning of health issues, interpretation and adoption of the prevention measures. Table 8.3 below shows the differences between the individualistic and collectivist cultures, with individualistic culture examples reflecting western ideals whereas the collectivist culture examples reflect eastern ideals including Africa.

Differences between individualist and collectivist cultures

Individualist* (typically reflect western ideals)	Collectivist† (typically reflect eastern ideals)
Independent	Socially interdependent
Self-reliant	Connected
Achievement orientated	Moderate/traditional
Competitive	Cooperative
Assertive	Obedient
Pleasure seeking	Self-sacrificing
Self-assured	Sensitive
Direct	Self-controlled
Self-interest	Equalitarian

Table 8.3 differences between individualist and collectivist cultures (Vinall et al., 2011)

The study communities met the standard criteria for collectivist cultures, characterised by strong social ties, interdependence, and a sense of communal responsibility (Vinall et al., 2011). However, during the COVID-19 pandemic, the assumption that they would be more likely to adhere to prevention measures simply because of their collectivist nature did not always hold true. While shared cultural meanings influenced their behaviour, non-adherence was not driven by a desire for personal freedom but rather by deeply rooted cultural beliefs and practices. For these communities, fully adhering to certain health measures conflicted with their way of life, and instead, they adapted in ways they believed best served their collective well-being. For instance, in contexts where caregiving and communal support are integral to cultural norms, directives to avoid physical contact with the sick or deceased were particularly difficult to implement. This mirrors challenges faced during the Ebola outbreak, where public health messages often failed to resonate due to a lack of cultural sensitivity (Buseh et al., 2014). This highlights the need to reconsider the definition of collectivism in health contexts—not merely as a factor that fosters adherence and social responsibility, but as a complex concept that shapes health decisions differently across various settings.

Card et al (2022) argue that collectivism has been recognised as a protective factor against COVID-19, likely due to a greater tendency to conform to social norms regarding preventive behaviours. Likewise, research also suggests that individualism can drive the adoption of

preventive measures as a means of personal protection. These cultural orientations may influence different patterns of prevention, such as a preference for mask-wearing in collectivist settings versus social distancing in individualistic ones (Zhao et al., 2024). Additionally, many studies examining the impact of individualism and collectivism during the pandemic have overlooked other psychological factors, including personality differences, which could offer deeper insights into the psychological mechanisms shaping prevention behaviours (Wang et al., 2023; Card et al., 2022; Dong et al., 2022). Thereby suggesting that a number of factors influence health decision making within collectivist cultures and these are not only limited to the set characteristics of these cultures. Furthermore, assuming that the opposite of collectivist culture would mean that communities were adopting individualistic cultural practices will still be flawed in their construction. While there is minimal research that explores the complexities in collectivist and individualistic cultures, the study did not set-out to explore this notion in detail but acknowledges the impact of this characterisation in the cultural contextualisation of prevention messages with local communities.

8.7 Conclusion

This study explored the interpretation, adaptation and reconstruction of the dominant COVID-19 prevention messages within localised contexts in order to create culturally relevant responses to the pandemic. Findings from this study showed subtle differences across the study communities in the interpretation and adaptation of the prevention messages, with some key differences noted on the structural and socio-economic factors that influenced responses to the prevention messages. This study showed how communities relied heavily on their cultural and local contexts to make meaning of COVID-19 and its prevention.

While COVID-19 prevention messaging was rooted in scientific public health evidence, cultural contexts played an important role in shaping how communities interpreted and applied these. This study highlighted how individuals and groups navigated COVID-19 prevention through the lens of their lived realities, adapting the messages to align with local knowledge, resources, and social structures. Rather than passively receiving health directives, communities actively reconstructed these messages, creating localised responses that were both practical and culturally meaningful. Understanding these contextual interpretations underscores the importance of integrating cultural perspectives into public health communication, ensuring that prevention efforts are not only evidence-based but also relevant and accessible to the communities they aim to serve. Promoting the acceptance and adoption of disease prevention measures requires acknowledging that all

forms of knowledge and practice, including scientific and medical, are shaped by cultural influences.

Although the study set out to focus specifically on COVID-19 prevention messages, the findings highlight the inherent interconnectedness between these messages and the preventive behaviours they were intended to promote. The messages, often structured as explicit calls to action (e.g., hand washing, mask wearing, physical distancing), were reinforced across multiple platforms and embedded within public health campaigns. As such, they were not abstract pieces of information but directives that were both interpreted and enacted within everyday life. Understanding the meaning and adaptation of these messages within communities, therefore, could not be separated from the behavioural responses they called for. In practice, people's interpretations were inseparable from their actions, with the enactment of behaviours serving as a primary expression of how the messages were understood, adapted, and integrated into local contexts.

The findings from this study cannot be generalised or transferred to other contexts, as it specifically examined the interpretation and adaptation of the COVID-19 prevention messages within a defined context and communities of EThekwini. For the results to be transferable, the exact conditions and contexts would need to be met. Moreover, the aim of this research was not to generalise the results, since this is often not the case in qualitative research, but rather to understand the specific local interpretation and reconstruction of prevention measures within particular communities in EThekwini. Qualitative research does not typically aim for generalisability of findings but rather seeks to provide in-depth, contextual insights into social phenomena. However, the learnings from this study can serve as a foundation for future research, allowing for further exploration and potential adaptation to specific contexts where relevant.

In addition to the study limitations presented in Chapter 4, it is important to note that COVID-19 is no longer classified as a pandemic or a public health crisis in South Africa at the present time of submitting this research. However, the lessons drawn from this study lay a foundation for future pandemic preparedness research and contribute to the ongoing discussion on the need for contextual and culturally relevant responses to health crises. While COVID-19 has become more manageable, the insights gained from this study remain pertinent to future pandemics, offering valuable perspectives on health communication strategies during disease outbreaks. Furthermore, while the CBPR approach and photovoice methodology enabled deep engagement and the centring of community perspectives, participant bias may have arisen from social

desirability, with some individuals presenting behaviours or interpretations they perceived as favourable to the researcher. These findings can enhance cultural communication approaches in ongoing disease prevention efforts, ensuring that health messages resonate within specific communities and contexts.

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Appendix 1: Informed consent form

Informed Consent Form: Focus groups/interviews

Over 18 year olds

Project title: **Exploring the localisation of COVID-19 prevention messages in eThekwini communities**

Dear Participant,

My name is Simamkele Bokolo, from the Centre for Communications, Media and Society (CCMS) department at University of KwaZulu-Natal in Durban.

Contact details

Ms Simamkele Bokolo
Centre for Communication, Media and Society
Howard College, University of KZN
Mazisi Kunene Road
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Project Details

You are invited to participate in a study that explores the contextualization of the universal or dominant COVID-19 prevention strategies of personal hygiene, physical distancing and prescribed masks for a South African response that is localized and people-centred in order to ensure the inclusivity of local voices. This seeks to understand how people within communities interpret the main COVID-19 prevention strategies and deconstruct these within their local contexts. It further aims to explore how various communities/residents have reconstructed their own prevention messages using local metaphors; to inform a peoples' science of COVID-19 responses. Your participation will add value to this study in exploring socio-cultural responses to COVID-19 that are cognisant of cultural determinants.

Participation is Voluntary

You can choose whether or not you want to participate, you do not have to decide immediately. Participation is voluntary and participants are free to withdraw from the study at any stage, for any

reason. If you agree to take part in either an interview or focus group, you will be asked questions around your perceptions, attitudes and knowledge about COVID-19 prevention strategies. You will not be asked to share any personal stories that you are not comfortable to share. You are not obliged to answer any questions that you are uncomfortable with. You do not have to give any reason for not responding to any of the questions, or for refusing to take part in the interview or focus group discussion.

Study procedures

If you take part in this study, you will be required to do the following:

- You will be invited to an introductory group session with the research and 7 other participants. In this group the researcher will explain what the research is about and how to participate.
- You will be asked to take photos with your phone in your community that reflect your experiences and how you understand Covid-19.
- You will be requested to send the photos at the end of each day via WhatsApp to the researcher for a period not exceeding 2 weeks
- You will be invited for a follow-up focus group discussion to unpack and discuss the photos sent, the researcher will facilitate the discussion.
- You will be free to communicate in isiZulu or English;
- You will have the option to use your real name or a pseudo name if you do not wish to use your real name;

Data storage and confidentiality

The interview or focus group discussion will be electronically recorded and kept confidential. The recording will be kept securely for 5 years at UKZN. Your information will not be shared outside of the research team. Any information about you will have a number on it and your name will not be recorded or mentioned in the research. The research team will make every effort to maintain confidentiality. However, confidentiality cannot be guaranteed on behalf of other participants in the group. You will be encouraged to share only that information that you are comfortable sharing with others.

Reimbursement

You will be re-imbursed for data costs to enable you to send the photos via WhatsApp. You will also receive a R100 transport reimbursement as a token of appreciation for participating in the

study. However, you will receive the R100 in 2 phases, the first R50 will be paid on the first day and the remaining R50 will be paid during the last group session.

Problems/Questions

In the event of any problems or concerns/questions you may contact Ms Simamkele Bokolo at bokolos@ukzn.ac.za or [redacted] or the **HUMANITIES & SOCIAL SCIENCES RESEARCH ETHICS ADMINISTRATION,** Tel: 27 31 2604557 Fax: 27 31 2604609 Email: HSSREC@ukzn.ac.za.

CONSENT (Edit as required)

- I _____have been informed about the study entitled "Exploring the localisation of COVID-19 prevention messages in eThekwini communities"
- I understand the purpose and procedures of the study.
- I have been given an opportunity to ask questions about the study and have had answers to my satisfaction.
- I declare that my participation in this study is entirely voluntary and that I may withdraw at any time without affecting any treatment or care that I would usually be entitled to.
- I have been informed that I will receive R100 reimbursement that will be paid in 2 phases, the first R50 will be paid on the first day and the remaining R50 will be paid during the last group session.
- If I have any further questions/concerns or queries related to the study I understand that I may contact Simamkele Bokolo at bokolos@ukzn.ac.za or on [redacted].
- If I have any questions or concerns about my rights as a participant, or if I am concerned about an aspect of the project or the researchers then I may contact:

HUMANITIES & SOCIAL SCIENCES RESEARCH ETHICS ADMINISTRATION
Research Office, Westville Campus
Govan Mbeki Building
Private Bag X 54001
Durban
4000

KwaZulu-Natal, SOUTH AFRICA
Tel: 27 31 2604557 - Fax: 27 31 2604609
Email: HSSREC@ukzn.ac.za

_____ _____

Signature of Participant **Date**

_____ _____

Signature of Witness **Date**

(Where applicable)

_____ _____

Signature of person obtaining consent **Date**

Appendix 2: Focus group discussion guide

1. What does COVID-19 mean to you?
2. What do you understand by the term “COVID-19 prevention”?
   Probe: What does COVID-19 prevention mean for your own life? (hand washing/sanitising, social distancing, use of face masks)
3. How do you practice these prevention messages in your daily life?
4. What has worked for you in Covid-19 prevention, and what has not worked?
5. Can you share some examples of how you have seen people adopt COVID-19 prevention in your community?
   Probes: Who is it working for?
   Why is it working?
   Why is it not working?
6. What measures have you and your community adopted to prevent COVID-19?
7. Are there any cultural practices or beliefs that are important to you that you were unable to continue with due to COVID-19?
   Probe: Can you share why this was a challenge for you?
8. Which of the prevention interventions go against your cultural beliefs or religious beliefs?
9. How does your community influence your decision to successfully adopt these prevention measures?
   Probe: Can you offer any examples on how your community have tried to be safer during COVID-19
10. What do you understand your role and that of your community to be in developing the Covid-19 communication that responds to your local needs?
11. If you had an opportunity to develop the COVID-19 prevention measures, what would you consider when developing them?
12. What should be the role of communities in developing prevention measures?
13. What would be your top 3 Covid-19 prevention messages/measures?

Appendix 3: Ethics approval letter

UNIVERSITY OF KWAZULU-NATAL
INYUVESI YAKWAZULU-NATALI

21 March 2021

Prof Eliza Melissa Govender (380444)
Simamkele Bokolo (218082881)
Nompumelelo Promise Gumede (8729208)
School of Applied Human Sc
Howard College

Dear Researchers,

Protocol reference number: HSSREC/00002318/2021
Project title: Tailoring prevention efforts for an African context: A social-cultural perspective to exploring COVID-19 perceptions through community science engagement
Non-Degree

Simamkele Bokolo (218082881)
Exploring the localisation and cultural reconstruction of COVID-19 prevention messages in three eThekwini community settings
Degree: PhD

Nompumelelo Promise Gumede (8729208)
Local interpretations of COVID-19 communication, risk perception and self-efficacy in different geo-spatial locations in eThekwini Municipality during and post SA lockdown.
Degree: PhD

Approval Notification – Expedited Application

This letter serves to notify you that your application received on 20 November 2020 in connection with the above, was reviewed by the Humanities and Social Sciences Research Ethics Committee (HSSREC) and the protocol has been granted **FULL APPROVAL**.

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number. PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

This approval is valid until 21 March 2022.
To ensure uninterrupted approval of this study beyond the approval expiry date, a progress report must be submitted to the Research Office on the appropriate form 2 - 3 months before the expiry date. A close-out report to be submitted when study is finished.

All research conducted during the COVID-19 period must adhere to the national and UKZN guidelines.

Humanities and Social Sciences Research Ethics Committee
Postal Address: Private Bag X54001, Durban, 4000, South Africa
Telephone: +27 (0)31 260 8350/4557/3587 **Email:** hssrec@ukzn.ac.za **Website:** http://research.ukzn.ac.za/Research-Ethics
Founding Campuses: Edgewood Howard College Medical School Pietermaritzburg Westville

Appendix 4: Gatekeepers letter

07 October 2020

Re: Permission to access Sites for COVID-19 Research

Dear Prof Govender,

Thank you for your request to access AIDS Foundation of South Africa (AFSA) sites in eThekwini, KwaZulu Natal for your project titled: ***Tailoring prevention efforts for an African context: A socio-cultural perspective to exploring COVID-19 perceptions through community science engagement***.

This letter confirms AFSA's support to assist you and your team of PhD researchers (Ms Mpume Gumede, Ms Simamkele Bokolo) to gain access to the following locations:

- Umlazi (township)
- Umbumbulu (rural)
- Cato Crest (informal settlement)

AFSA will also assist where possible with the recruitment of participants for the purpose of this study. The research team will be responsible to follow all COVID-19 lockdown regulations and will provide all their own PPEs.

Please feel free to contact____ should you need clarity.

Yours sincerely,

AIDS FOUNDATION OF SOUTH AFRICA, (RF) NPC.
2nd Floor, 135 Musgrave Road, P. O. Box 50582, Musgrave, Durban 4062, South Africa.
Telephone +27 31 2772700 Fax +27 31 2012584 E-Mail: info@aids.org.za Website: www.aids.org.za
Non Profit Company registered under Companies Act 71 of 2008, Registration: NPC No 1988 007 144/08. NPO No 003-464 NPO.
PBO No. 930002314-Section 18A (1) (a) Income Tax Act