

Death in the Pot: A qualitative inquiry into the explosive Community spread of COVID-19 during the month of June, 2021 in Petauke District, Zambia

Jordan Tembo¹, Patricia Mambwe²

¹Kalindawalo General Hospital, P.O.Box 560008, Petauke, Zambia

²Department of Nursing, School of Health Sciences, Rusangu University, Monze, Zambia

Abstract

COVID-19 has continued to hit communities across the globe. Its devastation is characterized by periods of slow-paced infection reach punctuated by sudden surge in case count with eventual mass hospitalizations and increased deaths. In Petauke District- Zambia, a low COVID-19 case load with corresponding low hospitalizations and deaths draped the district' COVID landscape for 9 months. A sudden surge in COVID-19 cases, from 33 in April to 1,311 in the month of June, 2021 shocked the community. The objective of this inquiry was to explore community-related factors behind the shocking increase of COVID-19 in the month of June. The study was conducted between July and August, 2021. A total of 30 participants: farmers, market traders, policeman, teacher, Traditional Healer, Health Worker, Community Health Worker, Business man/woman, Student, Traditional Counsellor and Shop Assistant participated in the study. The study used a cross-sectional explorative design with a qualitative approach. Participants were sampled purposively, conveniently and through snowball sampling methods. The study used the single interview per participant as data collection method. This study found that COVID-19 denial prevalent in the district coupled with funerals and other community practices – initiation ceremonies for girls, community meetings, travelling to COVID-19 hotspots and overcrowded transport among others fuelled the spread of corona virus in Petauke District-Zambia. This study recommends extensive and aggressive sensitization on COVID-19 to communities by Health Workers and Community Health Volunteers to ensure communities are knowledgeable and practice attitudes and behaviours that mitigate spread of COVID-19. The study recommends enforcement of COVID-19 protocols in all settings to ensure controlled crowds in funerals and other social gatherings, masking in public, and hand washing. The study also recommends strengthening community structures to enhance community surveillance and rapid response to pandemics. Health facilities to be revamped with COVID-19 diagnostic and treatment supplies, medicines and protective equipment. The study finally recommends that Traditional leaders and other Community leaders be engaged seriously for enhanced support in the fight against COVID-19 pandemic.

Key words: COVID-19, community, spread, transmission, gathering, precautions

Date of Submission: 26-08-2021

Date of Acceptance: 10-09-2021

I. INTRODUCTION

COVID-19 is an infectious respiratory disease caused by SARS- COV- 2 (World Health Organization, (WHO) 2021).The disease is transmitted through droplets and spreads from symptomatic, pre-symptomatic, asymptomatic patients or environmental surfaces (WHO, 2020; Ferretti et al., 2020). A large proportion of those infected with the Corona virus recover without requiring special treatment but the aged and the debilitated are prone to develop serious infection leading to death (WHO, 2021).COVID-19 is dreaded for its high transmissibility. Besieging mankind in a flash, Corona virus successfully knifed through continents defying city wide lockdowns. First identified and reported from Wuhan city of China in December, 2019 (Du Toit, 2020), COVID-19 has encircled the globe within months. Moving like fanned wildfire, COVID-19 first affected mega urban communities. Wilson and Chen (2020) rightly observed that from these huge urban centres, the virus made deadly inroads to other population groups (Wilson & Chen, 2020 in Van Damme et al., 2020) stunning communities due to its extraordinary rapid contagiousness.

Rural and urban communities across societies hit a sharp sudden deadly staggering record of COVID-19. These emerging and re-emerging(Balkhair, 2020) peak infections have been driven by human mobility, overcrowding, non adherence to wearing of face masks in public especially in areas with community and cluster transmission, (Kraemer et al.2020; Anfinrud et al., 2020; World Health Organization, 2020). Zambia's COVID-19 infections peaked in the month of June, 2021. The first known cases of COVID-19 in Zambia involved a married couple returning to Zambia from a visit to France. The couple was identified as having

suspected COVID-19 on March 18, 2020, and tested for COVID-19 after developing respiratory symptoms during the 14-day monitoring period (Chipimo et al., 2020:1). By 28th of April, 2020, Zambia recorded the first 100 confirmed cases of COVID-19 (Chipimo et al., 2020:1). These cluster of cases were mostly localized in Lusaka and Kafue after which corona virus picked up pace resulting in a 'nationwide spread of the virus' (Oyeranti & Sokeye 2020:4). What followed was a surge of cases around the country. Initial spread of COVID-19 in Zambia 'was mainly driven by imported cases after which community transmissions prevailed' (Azzia et al., 2020:12). Community transmission means that the epidemic has become so across-the-board that it becomes arduous to establish the chain of infection (Chauhan et al., 2020). Community transmission or spread was the cause for the sudden surge in hospitalizations and deaths during the month of June, 2021. The country's COVID-19 positivity rate of 2-3% for the month of April (UNDP, 2021) rose to 28% in June 2021(ZNPHI, 2021). This meant a rise from 119 at the start of the month of April, 2021 to 3,594 on 22nd June, 2021(ZNPHI, 2021) reaching the country's Corona virus peak. Clearly, it was from almost being out of the woods to a situation of Public Health Emergency. The rising cases recorded in Zambia were a serious marker and footprint that COVID-19 had driven the anvil of its presence into the ground and that Zambia was now engaged in an existential fight against a global invisible enemy that had left other hard-hit nations totally bungled due to squeezed health care delivery system following mass hospitalizations and deaths.

Public Health measures instituted to reduce community spread in Zambia included: limiting the number of attendees at funerals and other social gatherings- a maximum of 50 in attendance coupled with mandatory masking up in public places, social distancing and community sensitization (ZNPH,2021; Jaja et al., 2020; Li et al., 2021). In Petauke District, a rural town on the eastern part of Zambia with a population of 256,000 people (Petauke District Health Office, 2020), recorded its first confirmed case of COVID-19 on the 8th of September, 2020. The index case involved an indigenous male aged 66years, a citizen of Petauke district-Zambia returning from South Africa. The case manifested mild symptoms of fever, dry cough, and tiredness while in Lusaka where he had stopped over to rest. His symptoms and history of travelling to a country already ravaged by COVID-19 coupled with his stopover in Lusaka (capital city of Zambia)- at that time a Corona virus hotspot in the country, offered a prescriptive guidance for a COVID-19 test at the local hospital in Petauke. The COVID-19 swab was couriered to Lusaka for Polymerase Chain Reaction (PCR) Test. Slow paced isolated COVID-19 cases continued to penetrate Petauke. The cases were mainly imports from Lusaka and could have served as a warning signal to the community of something worse to come. A horrific sharp rise in the COVID-19 case count in Petauke was experienced during the month of June, 2021. While June signalled the start of winter-season in Zambia with expected surge in the COVID-19 case count but the spike was stunning. A comparative analysis of COVID-19 cases for Petauke district for April and June showed a wider and devastatingly high margin with April at 33 while June at 1,311. The Corona virus case load curve sharply hit the highest point of monthly frequency for the district. What made the COVID-19 case count reach an inflection point? The objective of this study was to explore community-led factors behind the explosive surge of COVID-19 cases in the month of June, 2021 in Petauke District, Zambia.

Table 1. A comparative analysis of confirmed cases of COVID-19 between April and June 2021 in Petauke district, Zambia

MONTH	NUMBER OF POSITIVE COVID-19 CASES
APRIL	33
JUNE	1,311

SIGNIFICANCE OF THE STUDY

The findings of this study will help reset the level of aggression at which COVID-19 sensitization is conducted by Health Workers to match with the prevailing community super spreader practices.

Findings of this study will also assist policy makers to strengthen policies towards the prevention of COVID-19 spread in rural areas.

II. METHODOLOGY

The study used a cross-sectional explorative design. A qualitative inquiry was used for collection of rich in-depth data. The study was conducted between July and August, 2021. Creswell (1998) suggested the range of 20-30 participants to be sufficient for an interview-study. This study used 30 participants gendered into 12 males and 18 females. The study used two sampling methods: purposive and convenient sampling methods. Purposive sampling was used for sourcing participants operating in crowded places -bus stations, taxi ranks, markets, migratory market sites. Purposive sampling method was also used to recruit community leaders: traditional leaders- village headmen and Residential Section Chairmen, religious leaders and Traditional Healers. The study used convenient sampling to enroll participants met outside crowded shops and shopping mall.

It is worth noting that some participants linked researchers to other participants whom they thought had additional information. Linkage was done through sharing of contact numbers and facilitation of appointments. Participation was voluntary. Written consent was obtained from literate participants met face to face while the rest gave verbal consent. Participants' ages of between 18years and 60years provided a tapestry of perspectives. Single-interview-per-participant data collection method was used. Interviews were conducted either in a face to face situation or on phone. Face to face interviews were conducted while observing all COVID-19 guidelines- masking, physical distancing and hand washing. Anonymity was assured as participants' used numbers and not names. Each interview took 15minutes. Interviews were guided by an interview guide. Permission was granted to record conversations but to delete immediately after data analysis. After explaining the purpose of the study, interviews began with collection of participants' demographic data then proceeded to area specific explanatory questions. At the end of each interview, researchers re-played audio files for participants to verify, correct or add information. For data analysis, recorded audio files were played repeatedly for researchers' familiarization of the recorded interviews. Qualitative data was analyzed through thematic analysis. The authors used thematic analysis for the purpose of 'generating new insights' (Braun & Clarke, 2006:77-101) as no similar study had been conducted in Zambia. Data analysis followed a six-phase approach as outlined by Braun & Clarke (2012) namely familiarising oneself with the data, generating initial codes, searching for themes, reviewing potential themes, defining and naming themes and producing report.

III. RESULTS

Table 1. Demographic characteristics of participants

VARIABLE	PARAMETRE			
	Male	Female		
Gender	12	18		
Age	18- 22	1	18- 22	3
	23-27	2	23-27	3
			28-32	3
	28-32	3		
	33-37	2	33-37	3
	38-42	2	38-42	4
	43 and above	2	43 and above	2
Marital Status	Single	3	Single	4
	Married	9	Married	14
Occupation	Farmer	4	Farmer	3
	Taxi/bus driver	2	Businesswoman	6
	Business man	3	Shop assistant	2
	Police Officer	1	Community Health Volunteer	2
	Teacher	1	Traditional Counselors	2
	Health Worker	1	Bartender	1
			Teacher	2
Level of education	No education	3	No education	4
	Grade 1to 7	3	Grade 1to 7	3
	G8 to 9	1	G8 to 9	3
	G10 to 12	3	G10 to 12	4
	Certificate	1	Certificate	1
	Diploma	1	Diploma	2
	Degree	0	Degree	1

What do you know about transmission, symptoms and prevention of COVID-19?

This question was meant to gain understanding of the community's level of awareness on transmission, symptoms and prevention of COVID-19. Participants in the urban area expressed a greater level of awareness. Urbanites' superior level of awareness could be attributed to easy access to television, radio, Health Worker and municipal council messaging. A female participant met outside the shops, a teacher and a resident of a low density urban area explained:

‘COVID-19 is spread through contact. It manifests through fever, cough, sneezing and it’s prevented through observing social distancing, regular washing of hands and wearing of face masks’, (Female participant resident of Petauke urban).

A male participant who introduced himself as a Police Officer stated that: ‘COVID-19 originated from China and has spread all over world through contact with people who are infected as well as touching contaminated surfaces. We can protect ourselves from getting COVID-19 by physical distancing, hand washing or sanitizing, masking up and staying at home’ (Male participant).

One business owner, a holder of a Diploma in Business explained that ‘COVID-19 is transmitted from person to person through coughing, sneezing, singing, shouting or contact with contaminated money’ (Male participant).

When asked where they got COVID-19 information, participants cited the television, radio, posters, flyers, from friends, health workers, and the church.

Responses from participants recruited from villages were shocking. They demonstrated a low level of awareness as expressed by one farmer, ‘people in the village know that there is nothing new about coughing, sneezing, and joint pains or fever and chills. The only new thing is the word Corona which they have added to instil fear in us’ (Male participant in the village).

Another farmer reported, ‘I do not know how Corona is transmitted but I heard that we have to wear a *thomu* – mask in public’ (Male participant).

At another village, one farmer explained that ‘COVID-19 is a disease blowing in the wind, *cikati khu khu* (when it blows) it triggers coughing, sneezing and a feeling of unwellness,’ (Male participant).

A certain small scale business lady said, ‘what I heard was that only those with high BP (Blood Pressure) suffer from Corona and when they contract the virus they have difficulties in breathing’ (Female participant).

Another female participant said: ‘What I know about corona is that health facilities want everyone to wear a face mask’ (Female participant).

How do you describe the COVID-19 situation in your community during the month of June, 2021?

This question was intended to investigate the general COVID-19 situation in communities within Petauke District during the month of June, 2021. Urban and surprisingly rural participants described a situation of increased COVID-19 related illnesses and deaths in their communities. One female participant in the Central Business District observed: ‘If it’s not a family member then it’s a neighbour or a church mate or just someone you know you they have been diagnose with Corona virus’ (Female participant). A male participant also residing within the urban portion of Petauke sighed, ‘I regard the month of June to be the darkest month for Petauke district because of numerous COVID-19 deaths. *Kula ku msalema* village (at the graveyard) we could notice endless convoys of vehicles bringing bodies for burial. Grave diggers were overwhelmed’ (Male participant). Participants from villages also described an appalling situation characterized by villagers getting sick and dying of ‘malaria-like illness’. One head man lamented, ‘in my village several people became ill and complained of cough, sneezing, fever and chills. I can tell you others even died. We thought it was *cifelu ca maleliya* (an outbreak of malaria) burning through our village because *mwezi uliye nkhole bwino* (the moon was not well positioned) (Male participant).

What do you think led to increased cases of COVID-19 in Petauke District during the month of June, 2021?

This question aimed at investigating factors behind community spread of COVID-19 in Petauke District. Participants explained that the community’s attitude towards COVID-19 was characterized by vehement denial of its existence. Even after COVID-19 emerged on the local community’s horizon through the recorded primary cases the widespread belief was that the tipping point would never come. ‘There were COVID-19 deniers everywhere in Petauke. They denied its existence. Those who accepted that COVID-19 existed; they labelled it as the disease for whites and the black elite’ (Male participant). Participants added that COVID-19 denialism ran deep that the community disregarded COVID-19 precautions setting a stage for disaster. The prevailing indifference to COVID-19 guidelines obscured the community’s serious preparation against the impending new COVID-19 wave. One participant who introduced himself as a Health Worker explained: ‘we could go round in markets and bars to distribute face masks and to sensitize people to adopt COVID-19 cautious behaviours but the response was listless. Casual intermixing continued as if COVID-19 was not real’ (Male participant).

From participants’ responses the following themes emerged- funerals attended by uncontrolled crowds, initiation ceremonies, mobile markets, non-compliance to masking, community meetings, home management of confirmed COVID-19 cases, traditional healers’ admission wards and overcrowded transport.

i. Funerals attended by crowds

Public Health Guidelines enacted in June, 2021 state that funerals are to be attended by a controlled crowd of 50 people. According to responses from participants, funerals in Petauke District attracted big gatherings of more than 200 to 300 people. Funerals involving high profile community leaders such as chiefs, indunas, head men, church leaders and others attracted throngs of 500 to a thousand plus people fueling the spread of the corona virus. Bigger congregations coalesced together interacting at close range were the perfect storm for corona virus explosion in the community. Participants explained that it was in their culture to mourn the dead as a community- as a congregate, as a huge assembly and not as a small group. They cited ancient wise sayings: *maliro ni kulirana* (funerals are for grieving together), *caona mzako capita maba cili pa iwe* (the tragedy that befalls your neighbour today, is past, tomorrow it shall face you). One head man shared the following: ‘When death occurs in the village we grieve together. Our ancient men said one finger cannot crush a louse. Funerals require team work otherwise it gets unbearably heavy for the mourner’ (Male Participant).

The same scenario applied to urban funerals. A section chairman of one of the residential compounds explained, ‘what determines the number of people attending a funeral is the deceased’s social status, availability of food and transport. The more renowned the deceased, and the more the food and transport the larger the number of people attending the funeral’ (Male participant). One significant aspect recurring through the responses was that during funerals, it was difficult for people to adhere to strict physical distancing whether at the funeral house, in the vehicles enroute for burial and at the cemetery. Only a small proportion of people masked up while a large proportion would be without masks. One business woman in the Central Business District explained, ‘crowds attend funerals but few wear masks and social distancing is never adhered to’ (Female participant). Participants explained that restriction of funeral attendees applied to a still birth and not an adult. Adults needed a heroic send off in death. One head man narrated: ‘it is not a sign of respect for a dead adult if very few people attend their funeral. Fewer numbers are for burying a dog and not a human being. The larger the gathering the greater the respect for the dead’ (Male participant). Asked what his views were over corona virus and restriction of attendance of funerals, the head man said, ‘corona virus has come to disrupt our culture’ (Male participant). One female participant at one of the villages narrated, ‘funerals that attract crowds are those where chickens and cattle are slaughtered in bulk’ (Female participant).

ii. Initiation ceremonies

In Petauke district- Zambia, initiation ceremonies are part of the wider community indoor social gathering that pull in women from all quarters. To ensure strict privacy, a hut with one or no window is chosen and the door is strictly closed or kept slightly ajar to prevent any man or boy from peeping. This results in crowding without physical distancing. Crowding where occupants smell each other’s breath. This tragic social coalescing is made worse by loud singing, loud laughter, shouting, ululating, joyful coughing and sneezing. These voluntary and involuntary mechanisms project corona virus laden-droplets from an infected person(s) into the already poorly ventilated environment. It is from the same congested and contaminated environment that the rest of the women inhale deeply. Participants explained that initiation ceremonies for girls usually begin during the month of June. One head man proudly explained. ‘Right now there are three girls undergoing initiation ceremony in my village. I tell you every woman is there in one hut. From afar you hear feminine voices raised in laughter, singing and joyful shouting’ (Male participant). One Traditional Counsellor said, ‘In the village we have all returned to our old normal life. We don’t want our girls to grow without knowing our traditions or else it will be difficult for them to keep their marriages’ (Female participant).

Asked whether women wear masks as they sing, shout and ululate, the Traditional Counsellor said, ‘we wear masks when going to the hospital so that we aren’t sent back’ (Female participant).

iii. Mobile markets

Mobile markets are weekly circuit markets operated by traders coming from local districts or other districts. Traders sell a variety of merchandize ranging from clothes, shoes, kitchen ware to agricultural inputs, food and beddings among other items. Participants explained that mobile markets attract a throng of villagers but provide no COVID-19 safeguards. Speaking in relation to COVID-19, one head man explained that mobile markets were like an open kraal where people roamed without wearing masks, observing physical distance or practiced hand washing. A mixture of traders, customers and onlookers made mobile markets super spreader events fuelling the surge of new COVID-19 infections in the community. ‘Mobile markets attract a lot of traders and customers but these never adhere to state-sanctioned measures’ (Male participant). One mobile market trader narrated the following:

‘Being a mobile market trader is very risky in these times of COVID-19 pandemic. We traders travel a lot within the country and sometimes across borders. We get exposed to customers with COVID-19, handle money that is COVID-19 contaminated. During the month of June alone, 12 of us out of 20 contracted COVID-

19. We suffered. Our businesses stood still. Some of our trading team members and family members died. For me I lost dad to COVID-19' (Female participant).

iv. Non-compliance to masking and mask sharing

Masking in public places is a requirement but according to responses from participants compliance was always low. Participants explained that the community complied with masking when entering premises with strict face mask enforcement. The strict enforcers of masking include banks, offices, shops and health facilities. Participants observed that people had a tendency to wear masks incorrectly or altogether took them off. One female teacher met outside the shopping mall observed a pattern of indifference: 'It's only when people reach premises enforcing face masks with conspicuous labels NO MASK NO ENTRY that's when they wear masks. Even then, their indifference to masking is clearly visible for example they retract the mask exposing the nose or the nose and the mouth' (Female participant). Other participants observed that members of the community treated corona virus with a cavalier attitude. They shared masks freely. One participant explained, 'I see a lot of people sharing masks. The moment one person has accessed a service, they give it to another and the next person does the same until the entire queue of 5 to 10 access a service using a single mask'(Male participant). Over sharing of masks, one business man shared the following, 'we were 30 of us in a truck going to collect a body at the mortuary. The Mortuary Attendant demanded to let in those wearing face masks but only 3 elderly men wore a mask each. The old men took off their masks and gave them to middle aged men to access the body' (Male participant). The study was directed to another interesting dimension of face masks prevailing in boarding schools. An 18 year old female met outside the shops who introduced herself as a Grade 12 student at one of the boarding schools shared something interesting. 'At our boarding school the moment you notice your face mask is missing then you know they have stolen it; immediately, you go out and steal whatever mask you find to access class or the dining hall' (Female participant).

v. Community meetings

Community meetings are settings through which residents of an urban or village share common goals, distribute tasks and agree on timeline for implementation. COVID-19 takes advantage of community meetings because of mass gathering. Community meetings act as flashpoints spreading COVID-19 infection unintentionally to others in close proximity especially where public health precautions are ignored giving an opportunity for the corona virus to spread. Participants explained that community meetings were partly the source for the surge of COVID-19 cases in Petauke district. One section chairman of an urban residential area said, 'I think community meetings could have been partly to blame because we never stopped meeting and you can't know with certainty that my neighbour seated next to me has COVID-19 if they do not show any known signs of coughing and sneezing' (Male participant). In rural area the storyline of community meetings was the same. One head man reported, 'meetings are a sign of unity. If the head man does not call regular meetings then know that the village will desert him'(Male participant).

vi. Home-based management of confirmed COVID-19 cases

Asymptomatic to mild symptomatic confirmed COVID-19 cases are managed at home. Home-based management of COVID-19 requires staying at home and adhering to COVID-19 guide lines. COVID-19 cases require strict self-isolation to prevent spread. Without full education, loose or no surveillance, such cases easily sneak and actively participate in societal activities in small or big in-person gatherings sometimes without wearing masks. Participants narrated that some of the home-based managed cases of COVID-19, mixed in with scores of people in the streets, shops, markets, stations and other people-filled places either because they lacked full information or were under loose or no surveillance at all to limit contact and follow COVID-19 guidelines. One mobile market trader narrated: 'my brother was not fully educated on meaningful self quarantine that protects the family, the neighbourhood and the entire community. He was all over visiting friends' (Female participant). Another mobile market trader added 'as long as health facilities do not work themselves to the ground to fully educate COVID-19 patients on how to carefully manage their condition at home and refer them to community structures for further monitoring and sensitization, these patients become a source of infection to members of the community. They roam streets; enter shops, visit friends or crowd transport not wearing masks' (Female participant).

vii. Traditional Health Practitioners

Traditional Health Practitioners are respected members of both the urban and rural community. They are highly regarded by rural communities as sources of healing, protection and hope. Their word is revered and swallowed whole. Instructions surrounding their treatments are adhered to with intense exactness. Majority of the sick in rural communities, flock to Traditional Health Practitioners for treatment. They also visit the Traditional Practitioner for divination so that they know the vile individual at the centre of their illness. To

accommodate huge numbers of the sick, Traditional Health Practitioners build a temporal grass-shelter which they call a church. The visiting hour in the morning, lunchtime and evening add more people to the existing multitude of the sick and bedsidders in the Traditional Practitioner's ward. This cluster of people mixing and interacting at close range provides a fertile ground for COVID-19 to spread. One head man observed, 'Traditional Healers pull enormous crowds of invalids but the environment in which the sick and bedsidders share for weeks and months is usually congested and dirty. I strongly believe that it is from such places that some of my people acquired COVID-19 infection' (Male participant). But most Traditional Health Practitioners are deniers of the existence of COVID-19. They attribute COVID-19 to sorcery. This plays out negative to the people stranded in the backyard as they lower their guardrails against COVID-19 they stop physical distancing, hand washing wearing masks. They adhere to the ancient entrenched custom of shaking hands when greeting. Over the custom of shaking of hands one head man remarked, 'if health workers educate us that handshakes transfer corona virus from one person to another then whatever happens at the witchdoctor's admission wards fuels the spread of COVID-19'(Male participant).

viii. Overcrowded transport

Public transport is usually characterized by overcrowding with some passengers standing between police roadblocks. Overcrowding in transport increases the risk of passengers spreading COVID-19. Passengers become susceptible to corona virus as public health measures -hand sanitizing and physical distancing are not adhered to. Passengers cough and sneeze openly. They touch and contaminate surfaces. In this study participants explained that while banks, supermarkets, health facilities and government offices enforced physical distancing and masking, transporters violated both. One Taxi driver reported, 'my vehicle is a 5 seater but I make more money when I squeeze 3 more passengers to make 8'(Male participant). Asked whether his congested passengers wear masks, he replied, 'whether mask or no mask I take in' (Male participant). The other taxi driver explained that when schools closed abruptly during the month of June as a result of escalating COVID-19 cases, students clamoured for transport. 'We just had to overload them and use other roads to evade the police' (Male participant).

ix. Community Health Workers

Community Health Workers play an important role in rural communities by assisting members of the community meet their health needs. Communities located far from health facilities entirely rely on Community Health Workers for Health Education, basic screening, basic testing and treatment especially at awkward times-at night. While Community Health Workers are engaged in a noble work, their work is fraught with COVID-19 risks due to close proximity they come to patients. With COVID-19 shadow looming large even in rural areas, Community Health Worker assignments in the community had become a very dangerous assignment mid-pandemic. One Community Health Worker explained the following: 'I remember so well during the month of June there were so many members of the community presenting with symptoms typical of Malaria but after testing the result would be negative. From a health facility, I would receive a report that their result for COVID-19 was positive. Imagine the exposure my colleagues have corona virus!'(Female participant).

x. Travelling to COVID-19 Hotspots

In Zambia, the month of May is a month for harvesting. Small scale farmers sell their agricultural products and travel a lot to visit relatives in urban areas or to procure merchandize from the capital city-Lusaka for their seasonal business. Exposure to COVID-19 begins in the buses where some enter without wearing masks or taking them off later. The threat to COVID-19 progresses as one mingles with other passengers on disembarking without adherence to physical distancing guidelines. One participant explained, 'just after harvest-time, people travel a lot to visit and for business. I am sure unrestricted movement to corona-hit provinces aided importation and spread of Corona virus in Petauke District' (Female participant). Asked why people travelled to the capital city a well-known corona virus hotspot, one trader at one of the markets said, 'well, my family has to feed and children have to go to school so I travel to the capital city to procure merchandize for sale' (Female participant).

xi. Culture of visiting the sick

The custom of visiting the sick at home characterizes the community life of the people of Petauke. One headman reported, 'when one falls sick in the village 10 or more people in separate groups visit in the morning, at noon and in the evening' (Male participant).A visit was said to be complete if the visitors squeezed themselves in the hut, spoke to the sick and presented gifts- food, medicines etc. Deviation from this norm attracted derision and negative labels. The deviant was labelled a witch and a heartless person who took pleasure in seeing others suffer. At one village, a female participant narrated, 'no one wants to be labelled a heartless witch in the community'(Female participant).

Caring for one another especially in sickness was the expected way of life among church members too. The obligation to visit the sick was tighter when the church leader fell sick. ‘We all go out to visit, sing and intercede loudly for our leader to get healed’ (Female participant). During pre-pandemic times, such visits enhanced social bonds but mid-pandemic this custom becomes a super spreader even for corona virus. One participant who introduced herself as a deaconess explained that:

‘4 members from our church complained of experiencing similar symptoms as those of the leader- fever, joint pains and fatigue exactly a week after we visited the leader at his home’ (Female participant).

IV. DISCUSSION

COVID-19 is a global health threat to mankind. From its discovery in China in 2019, this respiratory viral infection hit continents within months. In Africa, the first case of corona virus was identified in ‘Egypt on 14th February 2020’ (Simulundu et al., 2020:455). In Petauke- Zambia, confirmed COVID-19 cases had a slow-paced beginning but sparked a sharp unexpected rise to 1, 311 in the month of June, 2021. The purpose of this study was to investigate community related factors that led to COVID-19 cases spiralling out of control and containment in a district with weak health care system. This study found that urbanites with higher economic status and education in Petauke were profoundly knowledgeable about transmission, symptoms and prevention of COVID-19. They attributed their awareness to watching television, listening to the radio, reading posters and flyers related to COVID-19. They also attributed their knowledge to sensitization programmes from Health Workers, the local Municipal Council, and from the church. For participants in villages, this study found astonishing low levels of awareness on transmission, symptoms and prevention of COVID-19. One female participant narrated: ‘What I know is that corona is a disease for the rich. Why should it follow the poor? What do the poor have?’ (Female participant). Poor levels of COVID-19 awareness have been reported in Malawi. A study by Li et al., (2021) titled *Knowledge, Attitudes, and Practices Related to COVID-19 Among Malawi Adults: A Community-Based Survey* found that members of the community with higher economic status and education in Lilongwe- Malawi had higher levels of awareness on COVID-19 while those with low levels of economic status and education had correspondingly low levels of awareness on COVID-19.

A couple of months, between September, 2020 and May, 2021, COVID-19 had a slow reach in Petauke district- Zambia. The month of June 2021 however, recorded an unusual spike of COVID-19 cases characterized by overflowing hospitalizations and deaths. For a district lagging behind in COVID-19 vaccination, a sudden surge in COVID-19 case load spelt doom for the district. This study found that the deadly surge of COVID-19 was experienced across the district. The surge was sudden and without warning. It totally ambushed the community. A female participant commenting on the COVID-19 surge in Petauke said, ‘the wave hit us so hard that within few weeks there were so many people reported sick or dead of COVID-19’ (Female participant). Findings of this study support those from India. Samarasekera (2021) describing India’s deadly COVID-19 surge wrote: ‘India’s surge in cases started in mid-March 2021 and rose rapidly in April’ (Samarasekera 2021:238). Africa Center for Strategic Studies (2021) describes India’s COVID-19 spike as it ‘hit the country like a cyclone in early April’ (African Centre for Strategic Studies 2021:1). This study also found that the community in Petauke was characterized by two groups: COVID-19 deniers and COVID-19 acceptors. Deniers of COVID-19 utterly refused that it ever existed. Some invoked COVID-19 conspiracy theories that COVID-19 was a political ploy to win donor funds. One participant met at the Central Business District simply said, ‘I don’t think COVID-19 ever exists. For me it’s a whetted political ploy to win donor funds’ (Male participant). These findings are similar to Cornwall(2020)’s observation: days after corona virus case identification in the United States on 20 January 2020, conspiracy theories filled social media platforms namely the virus was a scam—part of a plot to profit from an eventual vaccine fill.

This study found a range of community-led practices that promoted mass gatherings propelling community spread of COVID-19 in Petauke. Funerals, initiation ceremonies, community meetings and the culture of visiting the sick attracted crowds interacting very close in and out doors without masking and practising hand hygiene. Funerals for community leaders were reported to attract huge crowds without strict observance of adherence of COVID-19 guidelines. One participant reported, ‘when people know it’s the chief or any other community leader who has died then everyone clamours to attend the funeral’ (Male participant). Jaja et al., (2020) in a South African study found that government regulations allowing 50 attendees at a funeral was not strictly adhered to resulting in mass gatherings where social distancing was compromised during food sharing as people sat very close without masking resulting in the spread of corona virus. Initiation ceremonies for girls attract crowds of women in one place for a period of 21days to 30days. Though such activities have peak periods of attendance, they have potential to spread corona virus easily because of singing, shouting, loud laughter, encased in structures with poor ventilation. Commenting on Male Circumcision as a cultural event with potential to spread corona virus, Jaja et al., (2020) observed a lingering ‘danger of the spread of COVID-19 from such activities’ (Jaja et al., 2020: 1078).

V. CONCLUSION

COVID-19 has ravaged communities worldwide within a short period of time due its fast-paced transmission. This qualitative survey investigated factors that contributed to community spread of COVID-19 in Petauke District- Zambia. The study found that COVID-19 denialism coupled with mass gatherings devoid of precautions lowered the community COVID guard. When the new COVID-19 third wave struck suddenly, without any signal, during the month of June, 2021, cases increased exponentially straining available health care resources due to mass hospitalizations.

VI. RECOMMENDATIONS

This study recommends extensive and aggressive sensitization on COVID-19 to communities by Health Workers and Community Health Volunteers to ensure communities are knowledgeable and practice attitudes and behaviours that mitigate spread of COVID-19. The study recommends enforcement of COVID-19 protocols in all settings to ensure controlled crowds in funerals and other social gatherings, masking in public, and hand washing. The study also recommends strengthening community structures to enhance community surveillance and rapid response to pandemics. Health facilities to be revamped with COVID-19 diagnostic and treatment supplies, medicines and protective equipment. The study finally recommends that Traditional leaders and other Community leaders be engaged seriously for enhanced support in the fight against COVID-19 pandemic.

ACKNOWLEDGEMENT

The authors wish to thank all participants for their willingness and time to participate in this study.

REFERENCES

- [1]. Abel T, McQueen D.2020. The COVID-19 pandemic calls for spatial distancing and social closeness: not for social distancing!. *Int J Public Health* 65(3):231
- [2]. Africa Center for Strategic Studies 2021. Lessons for Africa from India's Deadly COVID-19 Surge <https://africacenter.org/spotlight/lessons-for-africa-from-indias-deadly-COVID-19-surge>
- [3]. Anfinrud, P. Bax, C.E., Stadnytskyi, V. Bax, A. 2020 Could sars-cov-2 be transmitted via speech droplets? *medRxiv*
- [4]. Azizah F. Siddiqui, A.F., Wiederkehr, F., Rozanova, L. Flahault, A. 2020. Situation of India in the COVID-19 Pandemic: India's Initial Pandemic Experience. *International Journal of Environmental Research and Public Health*
- [5]. Backer, J.A., Klippenberg, D., Wallinga, J.2020. Incubation period of 2019 novel coronavirus (2019-nCoV) infections among travellers from Wuhan, China, 20- 28 January 2020. *Euro Surveill.* 2020;25:2000062
- [6]. Balkhair, A.A. 2020.COVID-19 Pandemic: A New Chapter in the History of Infectious Diseases *Oman Medical Journal* [2020], Vol. 35, No. 2: e123 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7171815/pdf/OMJ-35-02-2000045.pdf>
- [7]. Bourouiba, L., Dehandschoewercker, E., Bush, J. W.M.2014. Violent expiratory events: on coughing and sneezing. *J Fluid Mech* 2014;745:537-63. doi: 10.1017/jfm.2014.88.
- [8]. Bourouiba, L. (2020). Turbulent gas clouds and respiratory pathogen emissions: potential implications for reducing transmission of COVID-19. *JAMA* 2020. [Epub ahead of print.] doi: 10.1001/jama.2020.4756. pmid: 32215590
- [9]. Braun, V., Clarke, V.2006. Using Thematic Analysis in Psychology. *Qualitative Research in Psychology*, 3(2), 77-101 <http://dx.doi.org/10.1191/1478088706qp06309> Retrieved on the 30th of June, 2021
- [10]. Braun, V., Clarke, V. 2012. Thematic Analysis. In H.Cooper, P.M.Camic, D. Sher (Eds.), *APA handbook of research methods in psychology*, vol. 2 *Research designs: Quantitative, qualitative, neuropsychological, and biological*, 57-71 American Psychological Association <https://doi.org/10.1037/13620-004>
- [11]. Chauhan, A., Mishra, N.L., Singh, A., Besra, B.2020. How far is India from Community Transmission of COVID-19? <https://www.downtoearth.org.in/blog/health/how-far-is-india-from-community-transmission-of-COVID-19-72474>
- [12]. Cornwall, W. 2020. Just 50% of Americans plan to get a COVID-19 vaccine. Here is how to win over the rest <https://www.science.org/news/2020/06/just-50-americans-plan-get-COVID-19-vaccine-here-s-how-win-over-rest>
- [13]. Creswell, J.W. 1998. *Qualitative inquiry and research design: Choosing among five traditions*. Thousand Oaks, CA:Sage Publications
- [14]. Du Toit, A. 2020. Outbreak of a novel coronavirus. *Nat Rev Microbiol.* 2020;18:123. doi:10.1038/s41579-020-0332-0. [Crossref], [Web of Science @], [Google Scholar]
- [15]. Ferretti, L., Wymant, C., Kendall, M, et al.2020. Quantifying SARS-CoV-2 transmission suggests epidemic control with digital contact tracing. *Science.* 2020;368(6491). Doi:10.1126/science. abb6936.
- [16]. Gandhi, M., Yokoe, D.S., Havlir, D.V. 2020. Asymptomatic Transimission, the achilles'heel of current strategies to control COVID-19. *N.Engl J Med* 2020; *NEJ Med* 2009758
- [17]. Güner, R., Hasanoğlu, I, Aktaş, F.2020. COVID-19: Prevention and control measures in community. *Turkish Journal of Medical Sciences* <http://journals.tubitak.gov.tr/medical/> doi:10.3906/sag-2004-146 50: 571-577
- [18]. Gupta, R., Pal, S.K., Pandey, G.2020. *A Comprehensive Analysis of COVID-19 Outbreak situation in India* <https://doi.org/10.1101/2020.04.08.20058347> <https://www.medrxiv.org/content/10.1101/2020.04.08.20058347v1.full.pdf>
- [19]. Jaja , I.F., Anyanwu , M.U., Chinwe-Juliana Iwu Jaja, C. J. I. 2020.Social distancing: how religion, culture and burial ceremony undermine the effort to curb COVID-19 in South Africa https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7336991/pdf/TEMI_9_1769501.pdf *Emerging Microbes & Infections* 2020, VOL. 9 <https://doi.org/10.1080/22221751.2020.1769501>
- [20]. Kraemer, M. U. G. et al. 2020. The effect of human mobility and control measures on the COVID-19 239 epidemic in China. *Science* 21, eabb4218
- [21]. Li, Y., Liu, G.,Egolet, R.O.,Yang, R., Huang, Y., Zheng, Z. 2021. Knowledge, Attitudes, and Practices Related to COVID-19 Among Malawi Adults: A Community-Based Survey. *Int. J. Environ. Res. Public Health* 2021 18, 4090. <https://doi.org/10.3390/ijerph18084090>

- [22]. Munster, V.J.;Koopmans,M.;VanDoremalen,N.;VanRiel,D.;DeWit,E.A novel coronavirus emerging in China—Key questions for impact assessment. *N. Engl. J. Med.* 2020, 382, 692–694. [CrossRef] [PubMed]
- [23]. Newbold, S.C., Finnoff, D., Thunström, L. *et al.* Effects of Physical Distancing to Control COVID-19 on Public Health, the Economy, and the Environment. *Environ Resource Econ* **76**, 705–729 (2020). <https://doi.org/10.1007/s10640-020-00440-1>
- [24]. Nicholas, R. Jones, Qureshi, Z.U., Temple, R.J. Larwood, J.P.J. , Greenhalgh, T. Bourouiba, L.2020. Two metres or one: what is the evidence for physical distancing in COVID-19 ? the *bmj* | *BMJ* 2020;370:m3223 | doi: 10.1136/bmj.m3223 <https://www.bmj.com/content/bmj/370/bmj.m3223.full.pdf>
- [25]. Oyeranti, O., Sokeye, B.2020. EVOLUTION AND SPREAD OF COVID-19 IN NIGERIA. Centre for Petroleum, Energy Economics and Law (CPEEL), *CPEEL's COVID-19 Volume II Discussion Papers Series* University of Ibadan.
- [26]. Special Expert Group for Control of the Epidemic of Novel Coronavirus Pneumonia of the Chinese Preventive Medicine Association. An update on the epidemiological characteristics of novel corona virus pneumonia (COVID-19). *Zhonghua Liu Xing Bing Xue Za Zhi.* 2020;41:139–44.
- [27]. Samarasekera, U.2021. India grapples with second wave of COVID-19. *www.thelancet.com/microbe* Vol 2 June 2021
- [28]. Van Damme, W. Et al., 2020. *BMJ Global Health* 2020; 5 e003098, do:10:1136/bmjgh-2020-003098
- [29]. WHO announces COVID-19 outbreak a pandemic. Europe: World Health Organization (2020). [cited 2020 June 28]. Available from <http://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-COVID-19/news/news/2020/3/who-announces-COVID-19-outbreak-a-pandemic>.
- [30]. Wilson, M. E., Chen, L.H. (2020). Travellers give wings to novel corona virus (2019-Ncov). *J Travel Med* 2020:27
- [31]. World Health Organization. Report of the WHO-China Joint Mission on Coronavirus Disease 2019 (COVID-19); WHO: Geneva, Switzerland, 2020. Available online: <https://www.who.int/docs/default-source/coronaviruse/who-china-joint-mission-onCOVID-19-final-report.pdf> (accessed on 7 May 2021)
- [32]. ZAMBIA COVID-19 SITUATION REPORT No. 271 SITUATION UPDATE 21st- 27th JUNE, 2021 MOH/ZNPHI/WHO http://znphi.co.zm/news/wp-content/uploads/2021/06/Zambia_COVID-19-Situational-Report-No-271_22June2021_Final-1.pdf
- [33]. UNDP, 2021. Making markets and communities safer from COVID-19 <https://reliefweb.int/report/zambia/making-markets-and-communities-safer-COVID-19> THE
- [34]. World Health Organization (2020). *Mask use in the context of COVID-19* https://apps.who.int/iris/bitstream/handle/10665/337199/WHO-2019-nCov-IPC_Masks-2020.5-eng.pdf
- [35]. World Organization (2020). *Modes of transmission of virus causing COVID-19: implications for IPC precaution recommendations*. <https://www.who.int/news-room/commentaries/detail/modes-of-transmission-of-virus-causing-COVID-19-implications-for-ipc-precaution-recommendations>
- [36]. ZAMBIA COVID-19 SITUATION REPORT NO.195. MOH/ZNPHI/WHO http://znphi.co.zm/news/wp-content/uploads/2021/04/Zambia_COVID-19-Situational-Report-No-195_9April2021_Final.pdf

Jordan Tembo. "Death in the Pot: A qualitative inquiry into the explosive Community spread of COVID-19 during the month of June, 2021 in Petauke District, Zambia." *International Journal of Engineering and Science*, vol. 11, no. 9, 2021, pp. 51-60.