

HOUSING AND ADHERENCE TO COVID-19 HEALTH AND SAFETY PROTOCOLS IN GHANA: LESSONS FROM KUMASI



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SUMMARY

The declaration of COVID-19 as a global pandemic in March 2020 compelled national and city governments worldwide to implement a raft of health and safety protocols. This included directives such as working from home, practising regular handwashing, and avoiding poorly ventilated spaces. Adherence to these depended heavily on having access to decent housing that provides basic services. Thus, in this policy brief, we present the findings from collaborative research, which explored how household composition and housing characteristics impacted households' adherence or otherwise to COVID-19 health and safety protocols. Primary data were gathered using face-to-face interviews with 27 household heads selected across six suburbs in Kumasi and housing professionals.

The findings revealed that regular handwashing was the protocol most households predominantly adhered to, mainly because it is a well-known public health practice. The government's suspension of the payment of water tariffs by households further encouraged more regular handwashing by households, although households whose water supply came from commercial water vendors were more likely to prioritize water for domestic uses such as cooking and bathing over practising regular handwashing. Housing deficiencies such as poor ventilation, sharing of toilet and bathroom facilities in some dwellings and the complete absence of toilets and bathroom facilities in other dwellings compelled some households to resort to public sanitary facilities, which increased their risk of contracting the virus.

To improve housing conditions and promote greater adherence to health and safety protocols in future pandemics, we offer the following five recommendations: 1) the extension of an electricity tariff payment freeze to water vendors who supply water to areas lacking water from the public mains, 2) a review of some provisions in Ghana's building regulations to ensure good housing design, 3) supporting the provision of housing with basic facilities, 4) promoting holistic urban planning and housebuilding and 5) promoting adaptive design of buildings in a post-pandemic world.

I. BACKGROUND INFORMATION

This policy brief is based on an international collaborative research project between researchers from the University of Cambridge, England and the Kumasi Technical University, Ghana. The project is titled 'Exploring the impact of housing composition and housing characteristics on adherence to COVID-19 health and safety protocols in Kumasi' and is funded by the Cambridge-Africa ALBORADA Research Fund. The research was conducted in selected suburbs in Greater Kumasi, comprising Kentinkrono, Adiebeba, Santase, Kwadaso, Deduako, Apiadu, Manhyia and Old Tafo. Our respondents were 27 household heads in these suburbs, who from February to June 2022, shared diverging experiences about how their housing characteristics and social composition enabled or hindered their adherence to the COVID-19 protocols. From July to August 2022, we discussed the emerging themes

from the household interviews with 5 housing professionals, selected from the Ghana Institute of Architects, Rent Control Department, Ghana Real Estate Developers' Association, Kumasi Metropolitan Assembly and the Ministry of Works and Housing. Our evaluation of the empirical data demonstrates that access to decent housing and basic services improves households' ability to withstand the shocks presented by the pandemic. We present selected findings of direct relevance for policy intervention in the housing sector. The first part presents the challenges faced by households in their quest to adhere to the COVID-19 protocols of regular handwashing, lockdown, self-isolation and working from home. The second part provides policy recommendations to improve the housing situation.

II. CHALLENGES IDENTIFIED WITH ADHERENCE TO THE HEALTH AND SAFETY PROTOCOLS

a. Households' adherence to the handwashing protocol

Regular access to water in homes remains crucial for compliance with regular the handwashing protocol. Our findings suggests that households in our study areas can be grouped into four categories based on their access to water. They comprise (a) those without access to water (b) those with access to water from only the public mains (c) those with access to water from only wells or mechanised boreholes and (d) those with access to multiple sources of water. We found that households who live in category (a) houses reported the most difficulty in complying with the handwashing protocol. Those who live in category (b) houses had trouble adhering to the regular handwashing protocol due to the unreliable

water supply from the public mains, making them more dependent on commercial water vendors. The high cost of purchasing water from commercial vendors has forced these households to prioritize the use of water for cooking, washing, and bathing, over regular handwashing. Most private vendors could not extend the water bill payment freeze to their customers because the freeze on electricity bill payment by government was for only domestic users. Meanwhile, these commercial vendors rely on paid electricity to draw water for distribution. However, if a household accessed water from either a well or mechanised borehole (category c), there tended to be higher compliance with the regular handwashing protocol. Compliance with the regular handwashing protocol was however highest for households whose water came from multiple sources (category d).



Figure 1: Commercial water vending point at Adiebeba

b. Households' adherence to lockdown protocol

During the peak of the COVID-19 pandemic, the government of Ghana imposed a partial lockdown in Greater Accra and Kumasi, which required residents to stay at home. Our findings suggest that compliance with the lockdown protocol was largely dependent on access to good natural ventilation and the availability of toilet facilities at home. Although most households live in accommodation with a reasonable number of windows, they complained about poor access to natural ventilation and hence were unable to stay at home in line with lockdown protocols. The poor access to natural ventilation was caused by several window deficiencies. For instance, some windows were relatively small for the space they served; some

were positioned against the wind direction; some (sliding) windows only allowed natural air into the accommodation through one side; some windows were permanently closed due to proximity to a fence wall or a structure. Households who combined window deficiencies with cooking in an enclosed terrace reported extremely poor access to natural ventilation. Most households relied on standing and ceiling fans to improve ventilation. More so, due to the lack of toilet facilities in many houses in Kumasi, households had to leave their houses to visit the public toilets. The unhealthy nature of the public toilets exposed many households to not only contracting the COVID-19 virus but also other infectious diseases. Consequently, some households resorted to visiting the public toilets only during off-peak periods, that is during midday and very late at night.



Figure 2: A public toilet facility at Kentinkrono

c. Households' adherence to the self-isolation protocol

Self-isolation in homes became an important alternative, particularly when medical facilities across the globe were overwhelmed by the high number of COVID-19 cases. Our research showed that only a few middle to high-income households in Kumasi had sufficient rooms to self-isolate family members who may have contracted the virus. For the vast majority, they could practice self-isolation only when rooms previously used by family members had become vacant due to them travelling out of the country or moving out after marriage. Notably, low-income households living in single rooms or one-bedroom apartments in compound houses were quick to indicate that the regional or district isolation centre would have been their only option had a member of their household contracted the virus and have had to self-isolate. However, others said they would have given up their bedrooms and rather squeezed in together in their living rooms if their relatives could not be admitted at isolation centres due to a low bed capacity. Some households were of the view that the home provided a better place to care for infected

relatives than the isolation centre and hence would flagrantly flout the self-isolation protocol by sharing rooms and other spaces with their infected family members. The reason for this decision is the stigma attached to being sent to the isolation centre, which many erroneously associated with a death sentence. This stigma often led to worsening conditions of infected persons sent to the isolation centres.

d. Households' adherence to 'working from home' protocol

During the pandemic, many organisations asked their employees to work from home, often without finding out if the housing characteristics and household circumstances of these employees would permit this new way of working. Our research findings showed that formal sector workers struggled to work from home due to lack of space, distracting environment, and poor access to internet. Therefore, there was little or no productivity from these workers, as their housing situation constrained effective working from home. Nevertheless, for some informal workers, particularly those running home-based convenience stores or food joints, the home has always been the location

of their business, hence the directive to work from during the COVID-19 pandemic did not cause any significant change in their working environment or work processes unlike workers in the formal sector. Rather, working from home during the lockdown brought a lot of clientele, who ordinarily would have shopped from supermarkets or stalls closer to their workplaces in the city centre, to the home-based enterprise. While this increased profitability, it also exposed other members of households to the risk of contracting the virus. As a preventative

measure, food sellers who usually provided spaces for eating-in did not allow any of their customers to eat-in. Those running convenience stores introduced rope barricades across the frontage of their shops to encourage social distancing. Notably, some male adults whose work could not be done at home joined their wives to operate the home-based enterprise. These group of people also considered themselves as working from home, because the home-based enterprise are often run as a family business.

III. RECOMMENDATIONS FOR POLICYMAKERS

a. Extend electricity tariff payment freeze to commercial water vendors

This research has shown that the government's subsidy on water tariffs at the peak of the pandemic was implemented on the mistaken belief that all houses in Ghana are connected to the public mains. Consequently, some households who live in houses that are not connected to the public mains and had to purchase water from commercial water vendors

did not benefit from the subsidy. While subsidy on water tariff should still be implemented particularly for those that are connected to the public mains, we suggest that, going forward, the government will need to consider extending special electricity tariff subsidies to commercial water vendors who supply water to areas lacking access to water from the public mains. This will help reduce the difficult choice some households had to make in terms of the use of water. It will also ensure that pandemic subsidies are designed to be inclusive and with a contextual understanding of the variations in access to basic services.



Figure 3: A single-storey compound house in Kentinkrono

b. Enforce and review building regulations

There is a need for municipal authorities to enforce the provisions within the national building regulations, by among other things, approving building designs that allow good natural ventilation. For instance, buildings with windows that open to full capacity (either upward-downward or sideways) should be encouraged, rather than the current preferred sliding glass windows which only allow ventilation of up to about half of the size of windows. This will improve indoor ventilation within dwellings and discourage households, especially those living in traditional compound houses with courtyards, from mingling, thereby increasing the risk of inter-household transmission of the virus.

At the national level, we suggest a review of the national building regulations to promote and institutionalize the usage of building materials that are eco-friendly and can be sourced locally. Building experts believe there is a higher potential for materials such as bricks and bamboo to become major construction materials. For example, clay is easily accessible in most parts of Ghana as do bamboos. Buildings constructed from clays also tend to have low room temperature and some experts believe bamboo might have an equal or perhaps a better tensile strength than steel which is currently the predominant reinforcement material used in concrete structures.

Thus, in light of the current disruptions in the supply chains of several industries including construction, and that it might take a while for supply chains to get back to pre-pandemic levels, this call is timely. Not only is this call in line with the country's current local content policy but it also has the potential to create several opportunities (viz economic, research, cultural) for several stakeholders who will be involved in the local supply chain. For instance, job opportunities could be created for many unemployed youth in Ghana through the growing, processing, transportation, sale and export of local building materials. This will also help reduce the large-scale importation of foreign building materials, thereby saving the country the cost of importation. Also, a widescale uptake of local building materials could be leveraged to promote research activities

of the Building and Road Research Institute (BRRI). Furthermore, sites, villages and towns where these local building materials will be produced could be packaged for tourism purposes. We are however conscious that transitioning to locally-sourced and eco-friendly construction materials will require time, an aggressive campaign to build market confidence, changing tastes and preferences, and developing new supply chains. The pandemic has however presented a rare opportunity that we think Ghana should take advantage of.

c. Provide or support the provision of housing with basic services

There is now a strong consensus based on this research and others that in times of pandemic, the home serves not only as a shelter for households but as an extension of health centres to facilitate quarantining and self-isolation of household members who contract the virus. However, most households in Kumasi live in dwellings where basic facilities like toilets and bathrooms are shared. Whilst there is a strong cultural justification for this type of housing, in a pandemic-prone world, there is an urgent need to promote housing designs that minimize households' exposure to contracting infectious diseases. Thus, the government can leverage private sector capital to support the development of new affordable housing schemes that promote exclusive uses of basic facilities in dwellings. For houses that currently lack toilet and bathroom facilities, there is evidence that local authorities through a partnership with the World Bank are providing decent toilet facilities to households at affordable prices of about Ghc3,000 (USD 300). Hence, local authorities can promote widescale uptake of this initiative among households by first publicizing this initiative widely using different media outlets (e.g., radio, television, social media platforms etc.), partnering with financial institutions to help households who will not have the funds to pay for this initiative outright and sanctioning households who intentionally refuse to take advantage of the funding opportunity created to bring toilet facilities to their homes. Although this policy might not eliminate the sharing of facilities, it would minimize the scale of exposure to infectious diseases as only households living on the same compound will access these toilet facilities.

d. Promote holistic urban planning and housebuilding

There is a strong consensus among experts within the housebuilding sector that more needs to be done by local planning authorities to provide their local areas with public spaces and facilities such as parks, running tracks and recreational grounds to facilitate outdoor recreation, which is good for keeping well. Whilst in other countries, households could visit community parks for their daily exercise even during the height of the COVID-19 lockdown, it appears the lack of these facilities in Kumasi and indeed in many big cities in Ghana, made households interpret the stay-at-home directive to mean staying indoors and not coming outside at all. Against this backdrop, we welcome the initiative began by the Kumasi Metropolitan Assembly to provide Astro football turfs in some suburbs within the Metropolis to promote physical exercise and communal interactions. This initiative should however not be limited to only football pitches but extended to other forms of sports that encourage outdoor activities.

e. Promote adaptive designs of buildings for a post-pandemic world

Although most countries across the world have lifted lockdowns and working from home directives, hybrid working has become a legacy of the COVID-19 pandemic and some even believe it has come to stay. Hence, there is an ongoing global debate within the architecture and construction industry regarding future home design, and the consensus seems to be that the home can become more than just a place for shelter and socio-cultural activities to also being as a place for work and productivity-related activities. Our study lends support to the need for spaces within buildings to be designed in such a way that allows some working from home as most formal sector workers struggled with this change. This suggestion should however not be thought of as a privilege to be afforded only the elites and upper-middle class who can afford expensive homes but as something for many formal sector working Ghanaians whose work require dedicated spaces irrespective of their economic class.

IV. CONCLUSION

To conclude, the findings from this research project have revealed that the household circumstances and housing characteristics played a significant role in how seamless or onerous households adhered to the COVID-19 health and safety protocols in Kumasi. Whilst some of the findings point to insights that are familiar within the Greater Kumasi Area and indeed in many big cities in Ghana, it has also shed light on the nuanced ways in which deficiencies in housing provisions contributed to the non-adherence of

the health and safety protocols among different households. It is also evident that the COVID-19 pandemic has provided an impetus and key learning opportunities for government, local planning authorities and professionals in the building industry to take bold steps towards improving housing delivery and housing circumstances of households to ensure that current and future housing delivery is fit for a pandemic-prone world.



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