

‘Acceleration’ of the food delivery marketplace: Perspectives of local authority professionals in the North-East of England on temporary COVID regulations

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Abstract

In January 2021, we assessed the implications of temporary regulations in the United Kingdom allowing pubs and restaurants to operate on a takeaway basis without instigating a change of use. Local authorities (LAs) across the North-East of England were unaware of any data regarding the take-up of these regulations, partially due to ongoing capacity issues; participants also raised health concerns around takeaway use increasing significantly. One year on, we repeated the study aiming to understand the impact of these regulations on the policy and practice of key professional groups. Specifically, we wanted to understand if LAs were still struggling with staff capacity to address the regulations, whether professionals still had public health trepidations, and if any unexpected changes had occurred across the local food environment because of the pandemic. We conversed with 16 public health professionals, planners and environmental health officers across seven LAs throughout the North-East of England via focus groups and interviews. Data collated were analysed via an inductive and semantic, reflexive-thematic approach. Through analysis of the data, three themes were generated and are discussed throughout: popular online delivery services as a mediator to increased takeaway usage; potential long-term health implications and challenges; continued uncertainty regarding the temporary regulations. This paper highlights important changes to local food environments, which public health professionals should be aware of, so they are better equipped to tackle health inequalities across urban and sub-urban areas.

KEYWORDS

COVID-19, food environment, planning, public health, qualitative, takeaways

INTRODUCTION

In March 2020, the United Kingdom was placed under lockdown to restrict the spread of COVID-19, with the population only being allowed to leave their homes for reasons deemed essential, such as shopping for essentials (e.g. groceries and medicine) and exercise. In an attempt to keep afloat food-based businesses which relied on customers attending in person, the

government implemented a temporary relaxation of planning regulations allowing pubs and restaurants to operate on a takeaway¹ basis without instigating a change of use application (Ministry of Housing Communities and Local Government, 2021). However, it was specified that any such businesses wanting to

¹A 'takeaway' or trading 'on a takeaway basis' in this context refers to the sale of food for consumption off the premises.

take advantage of these regulations should notify their local authority (LA). The regulations were initially imposed for 1 year and later extended for a further 12 months to March 2022.

These regulations, in combination with the increasing availability of online food delivery services as a means of reaching customers, likely prevented numerous businesses from failing, and in the process preserved jobs, quality of life and local economies. However, it is also recognised that the surrounding food environment² influences a population's health and levels of health inequality (Rutter et al., 2017), leading to concerns that the increase in the availability of takeaways due to these regulations may have negative health consequences. The National Institute for Health and Care Excellence (NICE, 2010) guidelines, for example, state that the management of the local food environment via planning policy is key to reducing levels of non-communicable diseases such as obesity and diabetes. This is in line with evidence highlighting how the accessibility and affordability of unhealthy foods encourage harmful dietary choices (Caspi et al., 2012; Giskes et al., 2011; Keeble, Adams, Vanderlee, et al., 2021). Moreover, socio-economically deprived areas are more likely to have a higher concentration of fast food outlets (Keeble, Adams, Bishop, et al., 2021; Macdonald et al., 2018; Maguire et al., 2017), with the most deprived communities likely suffering the worst health consequences as a result of pandemic-related food policies (e.g. many delivered food-relief parcels did not consider individual nutritional needs), partially due to the link between obesity and more severe COVID-19 symptoms (Chang et al., 2021; Public Health England, 2020). Recent research has also outlined how online food delivery services leveraged the pandemic for promotion purposes, suggesting to their audiences that they order food to combat the spread of COVID-19 (Jia et al., 2021).

Interviews with frequent food delivery users demonstrate why the food environment can be so influential on health; with participants stating the convenience, low cost and normalisation of such services led them to order unhealthy fast foods more frequently, and that the short-term advantages were perceived to outweigh any long-term health consequences (Keeble et al., 2022).

In order to tackle such inequalities in exposure to takeaways, planners and public health professionals have suggested that planning policies could be utilised, improving the health of the local population in the process (Keeble, Burgoine, et al., 2021). Previous examples of such policy being applied include the exclusion of new takeaway establishments surrounding areas that children and families visit frequently, such

as schools; or restricting outlets if childhood obesity rates are above a predefined level (Keeble et al., 2019). It should be noted however, that despite the associations between the local food environment and health outcomes, quantifying exactly how access to unhealthy foods influences the health of a given population has proven difficult, with hundreds of varying methods utilised across studies in an attempt to measure the impact (Cotton et al., 2023; Titis et al., 2022).

Alongside COVID-19, recent trends in takeaway accessibility and use are also cause for concern. While the majority of takeaways continue to operate through existing store-fronts, an assessment of the availability of unhealthy foods through dark kitchens (hot food businesses which exclusively trade via delivery, without a storefront or accessibility to order in-person) and rapid grocery delivery services (RGDS) found that the majority of dark kitchens were primarily trading unhealthy fast foods, including desserts (Rinaldi et al., 2022). RGDS likewise predominantly advertised unhealthy, high-fat, salt and sugar foods towards customers. Both forms of online delivery service counter the work of LAs by increasing the geographic availability of unhealthy foods.

Furthermore, there are concerns that an increased intake of takeaway foods could become habitual post-regulations and that this could lead to a greater consumption of energy due to unhealthy food choices (especially after the surge in use of online delivery services; BBC News, 2020). However, it may also be the case that this temporary increase in takeaway usage simply replaced meals that were originally being eaten away from the home, and therefore the difference in unhealthy food consumption will be minimal (O'Connell et al., 2022; Xiang et al., 2023). Despite this concern, the explanatory memorandum accompanying the regulations stated that the monitoring and evaluation of the impact was unnecessary since they were only short-term (Ministry of Housing Communities and Local Government, 2020).

With this in mind, beginning in January 2021, we spoke with public health professionals across the North-East of England, finding substantial issues regarding staff capacity, with interviewees unaware of any data regarding the take-up of the regulations. There were also great health concerns for the situation post-pandemic, including how to monitor the consequences, before consideration of the recovery (Moore et al., 2022).

One year on, in March 2022, we repeated the study aiming to understand the longer term impact of these regulations on the policy and practice of key professional groups. Specifically, we wanted to understand if LAs were still struggling with staff capacity to address the regulations, whether professionals still had public health trepidations, and if any unexpected changes had occurred across the local food environment because of the pandemic.

²The food environment, or 'foodscape', encompasses any opportunity to obtain food and includes physical, socio-cultural, economic and policy influences at both micro and macro-levels (Lake & Townshend, 2006).

METHOD

Ethical approval was sought and granted from a Teesside University ethics committee (Ref: 2021 Feb 2740 Moore). In the reporting of this study, the Standards for Reporting Qualitative Research (SRQR) guidelines were consulted (O'Brien et al., 2014). The methodology for this evaluation has been outlined comprehensively in the previous year's study, of which this research aimed to replicate the interview and focus group elements (Moore et al., 2022). In short, in March 2022, a purposive sampling strategy was utilised, aiming to recruit local environmental health, planning and public health professionals from across the North East (several of which were participants from the preceding year's cohort).

Through previously known networks, publicly available contact information and word of mouth, potential participants were contacted to take part. With this approach, 16 professionals in total were recruited, representing seven (out of a possible 12) of the North East local authorities, with each participant either participating in a focus group or an interview undertaken by members of the research team. The 16 participants recruited consisted of: 10 public health-related professionals, three environment health officers and three planning-related professionals. In addition, 15 of the 16 participants had also been interviewed in 2020 as part of our original study. Before data collection began, permission to record and transcribe, alongside verbal consent to participate was obtained. Interviews/focus groups were conducted over Microsoft Teams.

The original questions asked have been removed or modified for new questions (below), catering for the new context 1 year from the previous evaluation; colleagues from the Office for Health Improvement and Disparities were consulted in the development of the questions (as they have a thorough understanding of the planning regulations) to better understand how many establishments adopted the temporary regulations, together with the wider impact on health, work priorities, and local economies.

1. There were initially limited data (and limited capacity to collect data) on the uptake of the temporary regulations. Has there been any change in terms of data collection or access to quantitative data?
2. Have more businesses come forward to notify the local authority that they are using the new regulations?
3. One year on, what is your perception of the longer-term impact of the changes?
 - a. Has there been a change in the balance between (eat in) hospitality premises and takeaways?
 - b. Have you seen an increase in drive-through or food associated with petrol stations?
 - c. New (built environment) developments around food?

4. How is the council approaching these issues?
5. Has central government taken steps to understand the impact of the changes?
6. What has been the overall impact of the pandemic and response on:
 - a. The high street and local economy
 - b. Public health
 - c. Local government capacity

An inductive and semantic, reflexive-thematic approach was applied to the data where identified similarities within the data (themes) were further refined through discussion and consensus between the researchers (Braun & Clarke, 2019, 2021). This approach was utilised to align with the aims of the study, emphasising respondents' interpretations of the regulations and their impact on public health.

RESULTS

We conversed with 16 public health professionals, planners, and environmental health officers across seven LAs within the North-East of England, identifying three key themes throughout which are discussed below. To preserve the anonymity of the participants, we have chosen not to report which specific LAs participants are based in.

Popular online delivery services as a mediator to increased takeaway usage

Participants stressed how key a role the popular online delivery services (e.g. Just Eat, Deliveroo, Uber Eats) played during the pandemic, including how they were fundamental to the success of many takeaway businesses, both original and temporary.

But there is no doubt at all, is that...many of these businesses, if not, the vast majority are, have only seen the level of success that they have had is because of the likes of Just-Eat and... Deliveroo.

(ID 1)

Environmental health officers also made the interesting point of how having a zero on a hygiene inspection does not lead to a business being shut down immediately nor does it appear to have a detrimental effect on owners. However, it does lead to an instant removal from online delivery services, which is often perceived as a greater motivator of change, given that the takeaway sector has become so reliant on their services.

We know from experience the moment we drop scores, for example, in a premise that hasn't done very well during inspection...

and we particularly, if we drop them very low and Just Eat, kick them off, the, honestly, the weirdly, sometimes the business isn't bothered if we drop them and they get a low score, but they are bothered when Just Eat drop them from their platform.

(ID 1)

Participants also raised the potential traffic implications of these delivery services, which planning officers currently have little power to act upon.

It has it with the clusters of Deliveroo and bikes and mopeds and whatnot. But there is obviously on the increase and we have had discussions, about, how we might start addressing it before, before it comes a big problem.

(ID 15)

Despite the regulations now ending and most restaurants returning to trade on-site, with these delivery services the line which defines a takeaway from a restaurant has become increasingly blurred.

What we're struggling with is when does it stop being a pure restaurant use with an ancillary takeaway and then become more of a, either a mixed use or the more dominant use is the takeaway element.

(ID 16)

Public health professionals were also pondering with the way the pandemic had accelerated changes in shopping habits, not only through delivery services but also through the ancillary selling of unhealthy food through petrol stations or drive-through coffee shops.

...we have a dry application currently for a drive-through sandwich shop and coffee restaurants. Which doesn't fall within our normal planning criteria for hot food. So we're, pondering how to deal with that at the moment. And I don't think we've got any reason to on health grounds to refuse it because we haven't got any policy that backs that up.

(ID 16)

With the rise of 'dark kitchens', the takeaway landscape is continually changing, with planning officers limited in their ability to prevent new businesses materialising since they typically fall under manufacturing use.

We've always classed dark kitchens as a B2 food manufacturer. And if the

premise is already a B to use, you don't need planning permission.

(ID 16)

Potential long-term health implications and challenges

Due to the potential increase in consumption of high-fat, high-energy foods, alongside potential decreases in exercise due to the lockdowns, participants were keen to highlight any potential long-term health implications, and the great challenge of reversing them that they would need to battle with in the near future.

Yeah, it's just, obviously people are reliant mainly on hot food takeaways. It can have possibly a negative impact on how, what they know about how nutritional food is at the calories and things like that.

(ID 14)

This coincided with a worry that businesses may now realise the potential to stay as a takeaway and aim to continue trading as such longer term, although others suggested such methods were merely opportunistic and therefore that they may struggle post-COVID.

We're looking at a bit of a cliff edge, I think the fact that a number of these premises are probably, realise the potential, in terms of operating as a takeaway potentially dual-use now alongside, sit in type setups as well.

(ID 10)

Environmental health officers raised concerns that hygiene standards were likely to have dropped due to a lack of inspections throughout the lockdowns. They also noted that being COVID-safe is now no longer a priority for businesses as regulations have been lifted, although the risk is still prevailing.

We're finding when we're doing the inspections that the standards in the premises have really deteriorated, cause we haven't been visiting.

(ID 3)

Additionally, environmental health stated that the change in output as a result of the regulations was not a major concern given they were largely selling the same foods. However, they were fairly alarmed with the substantial increase in domestic properties registering as food outlets, although they were aware that most of these new businesses were not selling foods considered to be high risk.

We've had a huge increase in people registering homes, like domestic properties as food businesses. I think someone put a figure on it, we've had 150 new registrations that are domestic.

(ID 3)

With people still being happy to work from home despite restrictions being removed, concerns were raised regarding footfall on high-streets, and long-term changes in shopping habits.

And that's impacted on the,... sandwich shops and the shopping in the town centre, because the council is not really, you would think they would be promoting everybody coming back to work, to help the economy.

(ID 3)

Alongside the potential long-term consequences listed, was also the challenge of reversing them. Public health professionals in particular spoke about not only the amount of time it will take to undo these impacts, but the difficulty is assessing just how great an impression these regulations will have had on people's health, in conjunction with the challenges of incentivising change.

So it's definitely a willingness within the council. We want to do this, we will do this, but it's the time it takes to do.

(ID 7)

On the other hand, there was an understanding from all parties that these regulations may have saved many businesses and facilitated local economies, although some worried elected members may choose to focus on this positive element of the regulations whilst ignoring the potential negative consequences to health, making the recovery effort more difficult.

I suppose it's a bit of a double-edged sword as well because politically, councillors will be saying we should be supporting businesses and all that type of stuff so, they'll be invested and see how it plays out.

(ID 7)

Continued uncertainty regarding the temporary regulations

Despite 12 months passing since our previous investigation, uncertainty remained across services concerning the organisation and enforcement of the temporary regulations. For example, participants were unaware of any formal data collection regarding uptake of the

regulations, despite it being a legal obligation for businesses to notify their LA.

So I would say that, you know, to my knowledge... I don't think we have a great understanding of what the take-up was in, in relation to that.

(ID 4)

Participants admitted that despite the legal obligation for businesses to notify, LAs had to take some responsibility for not setting up the infrastructure so businesses could inform, although the regulations themselves were not clear as to how this should be done.

We probably were at fault by not making it clear who, who to contact in, in any great detail. But the regulations weren't clear.

(ID 16)

Some reported forms of informal data collection, with professionals stating they had a rough idea of how many businesses took up the regulations via routine inspections or felt semi-confident enough to guess.

I could probably have a guesstimate as to how many of our premises that we think probably converted to doing deliveries and outside catering. I'd probably hazard a guess.

(ID 3)

Interviewees also noted how outside the scope of this study, there was little to no focus on the take-up of the regulations, with it rarely coming up in discussions.

Like I've come back from feedback now almost maybe 4 months or so and, the only time it's ever been discussed as in these type of meetings and was getting organised to join this piece of research today so yeah.

(ID 5)

Twelve months on and with the temporary regulations about to end, the role of collecting these data appeared to be largely unassigned, with no indication of it being designated in the near future.

So no, nothing changed on that front. All we've done is shift resources back to what we should have been doing all along.

(ID 1)

It is apparent that COVID-19 continued to have an unprecedented impact on service priorities, with LAs continuing to play catch-up over lost COVID work, with

one participant mentioning how it led to a considerable budget increase which was very unlikely to occur otherwise.

We've seen an incredible amount of kind of work head our way and had to react to it. Within minutes of being notified is, without a shadow of doubt being one of the most high-pressure, stressful situations that the service has gone through.

(ID 1)

The uncertainty continued as professionals reported being unsure as to how the end of the regulations would play out, with some having intuitions that businesses will simply ignore the regulation end if it was not proactively enforced. However, given most establishments had appeared to return to their previous, original methods of trade, for most participants the worry that pubs/restaurants would continue to deliver food was now a lesser concern.

I don't think there'll be many that will be like, oh yeah, right we're stopping now when such and such, unless people actually go and see it.

(ID 7)

LAs were also unsure around what elected members planned to do in the future because of the regulations, or whether there will be changes to National Child Measurement Programme (NCMP) thresholds going forward.

I don't know what they've done or what they plan to do. I've certainly not heard this as a major agenda, as far as cabinet members are concerned because we would definitely have heard of that if it was.

(ID 11)

On a more positive note, however, participants did state that there had been a shift back to normality, both for themselves but also for the public.

I think the majority of people now, once they get a bit more confident, you know, once things do turn to normal, I think the people who were going to go out, will go back to going out.

(ID 2)

DISCUSSION

Following on from our previous research, this study aimed to understand the continued impact of a

temporary relaxation of planning regulations, which permitted pubs and restaurants to operate on a takeaway basis without a change of use application. Capacity to address the change in regulations was now less of an issue for LAs, with most restaurants and pubs *appearing* to have returned to normal operations (no formal data was collected for this concern), and most LAs returning to their pre-COVID work agendas. The health trepidations initially brought up in 2021 by LA-based professionals remained, specifically, that takeaway use could become habitual for more families following the pandemic, and that reversing the potential health impact of greater takeaway use would be challenging. However, these apprehensions were followed by new concerns, namely, that food hygiene standards likely dropped due to a lack of inspections throughout lockdowns and the substantial increases in domestic properties registering as food outlets. Whether or not a business is deemed to be 'COVID-safe' was no longer considered a priority despite the potential risks remaining, alongside an increase in people shopping online due to the pandemic. Such changes in consumer behaviour, originally predicted to materialise over several decades, have now accelerated in recent years, leading to the deterioration of high-streets and shopping centres.

The overarching finding apparent throughout our conversations was how COVID has accelerated change across the food retail landscape. The word *accelerated* being key in that many of these changes were anticipated to occur over a longer time span pre-COVID. Businesses of all types were forced to adapt to the pandemic, and despite some assistance via government grants, many closed permanently (Office for National Statistics, 2021). Participants raised their concerns regarding the potential impact on high streets which were already becoming littered with 'toxic' shops and services such as bookmakers, sub-prime money lenders, tanning salons and hot food takeaways (Townshend, 2017). More consumers are continuing to shop online rather than in-person after COVID forced their hand during lockdown, leading to an e-commerce turning point for shopping habits. In June 2022 for example, sales via online retailers were 20% above pre-COVID levels despite all restrictions being lifted (Office for National Statistics, 2022). However, with regard to online food delivery, early evidence suggests that the initial increase in takeaway use may have only acted as a substitute for meals which would have otherwise been eaten away from the home, suggesting that eating in-person is still highly valued despite recent trends (O'Connell et al., 2022).

In March 2021, when we ran the first phase of the study, LA professionals presumed (we surmise correctly) that in respects to restaurants and pubs, once restrictions lifted most would return to normal, in-person services. However, the changes in the takeaway

landscape, alongside the wider impact on high streets and consumer habits were not yet envisioned. It is worth noting that this change in consumer habits did have apparent benefits, namely; an increased availability of different food options via delivery (which may be of particular benefit to those with mobility/accessibility issues, or those who are limited to a select number of unhealthy local takeaways), and a potential increase in food hygiene standards given many of the online food delivery platforms have stricter requirements than that of local authorities.

As many people continue to work from home, the impact of COVID on the food environment is still ongoing. Sandwich shops, for example, which relied on in-person customers from local businesses as staff went out for their lunch breaks, struggled immensely since almost the entirety of their customer-base began working from home overnight, and have continued to struggle as many people remain working from home (Buckley & Diamond, 2022; Fraja et al., 2021). There was also the concern that of those who managed to trade on a takeaway basis, some may now continue to do so despite having previously given little consideration to the concept, if it makes sense financially, or potentially shut their store-front permanently in-favour of becoming a ‘dark kitchen’ with lower maintenance costs. Such shifts in direction could further encourage the use of takeaways and the consumption of high-energy, high-fat foods (Adams et al., 2022) in-turn, worsening health inequalities since greater takeaway use is associated with food insecurity and poorer dietary health (Butcher et al., 2021). Planning categories may also need to be revised further, given it is becoming increasingly difficult to distinguish restaurants from takeaways, and with the introduction of dark kitchens which can fall under ‘industrial use’ (and therefore many retail/leisure occupiers will not need planning permission to serve takeaways), the takeaway model may become overly prominent.

Where food is sold on an ‘in-person’ basis, professionals discussed the alarming trends away from restaurants and cafés where customers dine-in, and towards drive-throughs and businesses which sell food on an ancillary basis, such as petrol stations. With drive-throughs in particular, participants were confident that despite not falling under the definition of a hot food takeaway, these businesses would be making the majority of their sales through high-energy, nutrient-poor food and drink, since the companies applying for planning permission for drive-throughs were already well known to our participants.

Given these trends in the local food environments regarding the ancillary selling of foods, dark kitchens, and less footfall on high streets, it is becoming evident that planning is not designed with public health as a primary consideration, with planners, environmental health officers, and public health teams all describing

the difficulties of working in the ‘new normal’; including unaccustomed food environments, extensive staff changes and amplified workloads. LAs struggled to react to the regulations after previously citing capacity issues (Moore et al., 2022) and now measuring the uptake of these policies post-hoc is unlikely to occur in the near future as professionals attempt to catch-up on lost work, or continue on towards more urgent projects. It was widely presumed that those businesses which took advantage of the temporary regulations are no longer doing so; however, as the role of collecting these data is unassigned, uncertainty regarding the potential impact remains. With recent evidence suggesting significant associations between food insecurity and obesity, partially due to the most affordable and accessible foods being energy-dense and nutrient poor (Eskandari et al., 2022), the concerns of these professionals appear to be valid; however, there will always be an element of doubt until this take-up data is collected.

This research has several limitations, namely, the sample size was limited to 16 participants and limited geographically to the North-East of England. No quantifiable measure of how many businesses traded as a takeaway because of the regulations was found in this or our earlier study, meaning many of the concerns listed by professionals were perceptions only. This research was time-limited, with all data collected within a 2-month period as LAs continued to recover from the pandemic, meaning liaising and contacting relevant professionals was difficult. Furthermore, as outlined in the differences between this study and its previous run-through (Table 1), the food landscape is ever-changing and therefore any future generalisations applied via the

TABLE 1 Similarities and differences between 2021 (Moore et al., 2022) and 2022.

Similarities
<ul style="list-style-type: none"> Local authority-based professionals are still unaware of any formal data collection regarding uptake of the regulations, as it continues to be low priority Due to the lack of data, uncertainty remains surrounding the impact on health Continued concern that takeaway use has become habitual for more families due to the pandemic View from public health professionals that unhealthy food accessibility via takeaways needs to be restricted via the application of local policies
Differences
<ul style="list-style-type: none"> Most local authority professionals have returned to their pre-COVID work agendas, with their capacity less of an issue Less concern about pubs/restaurants wanting to remain as takeaways given most appear to have returned to normal operations New concerns regarding the accelerated change to the food environment, predominantly facilitated by online delivery apps and lockdowns

findings from this research should be applied carefully to the relevant context.

One key point that became apparent through repeating the study is that through assessing the impact of these regulations, future studies should not only aim to understand the dietary impact of the regulations whilst they were active, but also how they have impacted the food environment. Specifically, whether there was a change in the number of new takeaway applications post-regulations (including the number of dark kitchens), how often households are ordering food online compared with pre-COVID, and whether households are choosing to order a greater variety of foods or if they have resorted back to the popular pre-COVID options. Future research should also aim to expand beyond LA-based professionals and seek to include local business and community members to gain a broader, more representative, range of perspectives.

CONCLUSIONS

This study describes the impact of temporary planning regulations introduced to combat the economic impact of COVID-19, 2 years on, through the views of key professional groups across the North-East of England. Compared with our previous study conducted, 1 year prior, participants were still unaware of any formal data collection regarding the uptake of the regulations by local businesses. Because of this lack of data, the impact on health is difficult to gauge, although this did not prevent our interviewees raising their concerns that the consumption of unhealthy food via takeaways will have become more habitual for many due to the pandemic.

In contrast to our previous study, most professionals had now returned to their pre-COVID work agendas, and there was less concern for pubs and restaurants wanting to remain as takeaways given most have appeared to return to normal operations. However, this was overshadowed in light of new concerns for the accelerated changes to the food environment facilitated by the combination of online delivery services and lockdowns, with the line which defines a takeaway from a restaurant becoming increasingly blurred so that planning categories might need to be further revised.

AUTHOR CONTRIBUTIONS

CB transcribed the interviews before conducting the qualitative analysis and developing the initial themes. Themes were then discussed with the wider research team. Interviews/Focus Groups were conducted by CO, HM, NG, and AL. All Authors read and approved the final manuscript.

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CONFLICT OF INTEREST STATEMENT

The authors declare no conflicts of interest.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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