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What about my opposition!? The case of rural public hearing best practices during the COVID-19 pandemic

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ABSTRACT

The public hearing is a vital method to obtain citizen participation and information gathering for urban policy decision making. However, the COVID-19 pandemic has caused local planning departments around the nation to rethink their strategy, especially when many citizens are unable to use many of the new strategies because of the rural digital divide. While fully online meetings would be ideal for the current situation, the reality is that the lack of Internet and technology severely limits public participation among certain populations and in certain regions. This paper analyzed nine counties in the state of Florida, USA, in terms of population, COVID-19 cases, Internet broadband availability, and public hearing strategies, as well as survey data regarding public hearings, to produce best practices for holding a public hearing during the pandemic. A hybrid public hearing approach is the most effective method given the circumstances, and best practices and future approaches are provided and discussed to help bridge the digital divide. These resulting best practices will inform local residents, developers, planners, and decision-makers moving forward in the pandemic and ensure that the public voice can be heard with openness and transparency without compromising the applicants’ and citizens’ safety and health.

1. Introduction

The COVID-19 pandemic has undoubtedly affected the entire planet and caused massive disruptions all over the world. Schools and businesses have been shut down. Large gatherings and community events are prohibited. The public is being denied access to public spaces. The pandemic is reshaping the way we live and work in various ways and has forced significant policy changes at all levels of the government, not just in the United States but around the world. Policies related to self-quarantining, stay at home orders, social distancing, frequent hand washing, and mask wearing are just a few examples of life altering changes directly impacting our personal and professional lives. As the world tries to navigate its way through this unfamiliar and tumultuous situation, every nation is trying to do the best it can.

However, throughout all this, the overall goal of governments worldwide is the same: try to function and return to normalcy as much as possible while still keeping its citizens safe. In the US, the federal government and state and local leaders are being forced to find a balance between loss of life versus loss of livelihood due to a lockdown. On the one hand, state and local leaders are being criticized for an over-abundance of caution and unreasonable restrictions, while on the other hand, the same leaders are being criticized for prematurely lifting restrictions and making hasty decisions that have led to increased numbers of infected citizens. Furthermore, mixed messaging from leaders at different levels of the government have created confusion; it is frequently up to the local governments and community leaders to decide what is best for their own residents as they are most familiar with their own situation.

On March 9, 2020, Florida Governor Ron DeSantis issued Executive Order 20-52, which officially declared a state of emergency in Florida (State of FL Exec. Order No. 20-52, 2020). On March 20, 2020, Executive Order 20-69 suspended the requirements for a quorum or local government body to meet physically and allowed local governments to use media communications technology to run such meetings virtually. The order stated:

NOW, THEREFORE, I, RON DESANTIS, as Governor of Florida… hereby suspend any Florida Statute that requires a quorum to be present in person or requires a local government body to meet at a specific public place… Local government bodies may utilize communications media technology, such as telephonic and video
conferencing, as provided in section 120.54(5)(b)2., Florida Statutes. (State of FL Exec. Order No. 20-69, 2020)

On June 23, Executive Order 20-150 extended Executive Order 20-69, which allowed municipalities to continue to meet virtually until August 1, 2020 (State of FL Exec. Order No. 20-150, 2020). Only July 29, 2020, Executive Order 20-179 further extended Executive Order 20-69 until October 15, 2020 (State of FL Exec. Order No. 20-179, 2020).

This paper addresses what some local governments are doing regarding city planning during the pandemic and how these new procedures impact the everyday citizen. Their approaches will be of critical importance to every citizen’s daily life and the development of the built environment. The public hearings that are held to discuss significant changes typically attract large gatherings and staying safe in large gatherings is a particularly major challenge during these times. Questions that will be discussed in this paper include: How can officials best conduct public hearings safely for their citizens while still remaining accessible? and how can officials provide a safe and healthy work environment for each county employee involved in the public hearing process during this pandemic?

2. Literature review

At the core of city planning is the proper design and development of the land using urban policies, or a set of policies that reflect the action or intention of a government to determine what the government decides to do or not to do (Dye, 2010; Gupta, 2001; Kuic, 1983). It is regarded as an expression of government activities’ tendency that will influence the general public. Jeremy Bentham (1748–1832), a famous British lawyer and philosopher, and the first methodologist in policy analysis, believed the key to understanding the science in political work would be the measurement by how well-off each member in the society was (Shafritz, Layne, & Borick, 2005). In a way, policy should be regarded as a method or tool used by government to provide “the greatest happiness” for the greatest number of people (Bentham, 1907). Therefore, public participation is essential in the strengthening of urban policy decision making and implementation. Public participation is the chance for regular citizens or those with little to no power to meet with and challenge those with all the power and resources in order to try to redistribute the power and achieve the “greatest happiness for the greatest number of people”, which serves as a measure of right and wrong (Bentham, 1907).

According to the Florida Sunshine Law, all meetings of the board or commissions are required to be open to the public. However, the COVID-19 pandemic has caused local planning departments around the nation to rethink their strategy, as the virus has been known to spread via the air, particularly in enclosed or indoor spaces, as well as via direct and indirect contact, which has prompted many large gatherings and public space access to be restricted. While some areas are content to keep things the same without additional precautions or changes during the pandemic, overall, there has been a wide increased adoption of electronic media to spread information and webinars to share knowledge and expertise (Megabed and Ghoneim, 2020). While 100% online meetings would seem ideal for the current situation to keep everyone safely separated, the reality is that the lack of Internet and technology severely limits public participation in some populations or regions. Many citizens are now unable to participate in public hearings or use the new strategies because of the rural digital divide, a phenomenon which has long existed prior to COVID-19.

2.1. Public participation

Public participation programs, sometimes known as citizen participation, were introduced at all levels of the government since the 1950s to narrow the gap between officials and citizens, with the idea that citizenship involvement in the government would result in a governance that is more effective and more democratic (Irvin and Stansbury, 2004).

Through public participation, engaged citizens could influence formulated policies to be more realistically grounded to their needs while at the same time, the public could get a better understanding of the difficult decisions government officials face (Irvin and Stansbury, 2004). Going even further, Arnstein, 2019 believed that citizen participation was citizen power and a way in which the have-nots of society, who have been excluded from current political and economic processes (such as blacks and Indians), could redistribute the power that allows them to be included in the future. She understood the importance of public participation while also being fully aware that some citizens were powerless, and their participation was only an empty ritual for show. To this end, she developed a simplified ladder describing eight types of participation from non-participation to obtaining full managerial power: Manipulation, Therapy, Informing, Consultation, Placation, Partnership, Delegated Power, and Citizen Control (1969/2019).

However, some feel that Arnstein’s ladder frames public participation only as a power struggle between the community and the government; a major goal of public participation is for the citizen to be both informed and involved with public policies and ultimately to become citizen-experts who can fully comprehend technically difficult situations and see long term, holistic solutions, even if the policies do not seem popular at first glance (Irvin and Stansbury, 2004). Furthermore, the basis of public participation is sometimes challenged by questions such as whether citizens should be or really need to be involved with the entire decision-making process or only certain portions and whether citizens are truly able to speak their mind and not be influenced by other stakeholders.

Nonetheless, citizens need to be able to be provided with the opportunity to exercise their power, voice their opinions, and become informed through public participation since a local government’s planning decisions will shape the future growth of a community. In fact, Moore (1995) argues that government policy-making goals should be connected to the goals and viewpoints of their citizens according to public value theory and ideally, these goals should follow the will of the citizens.

2.2. The public hearing

The public hearing is one of the more traditional forms of public participation and is generally defined as a meeting where a governing body presents information and listens to feedback from the public regarding a local issue or proposed government action. They are provided by government agencies to demonstrate transparency, predictability, and reliability, and for some citizens, it is an efficient way to express their opinions. The hearings help government officials make decisions based on whether a proposed planning and zoning matter will adversely affect the public interest, whether it is consistent with the current Comprehensive Plan, and whether it is compatible with land uses in the surrounding areas.

While the public hearing is designed for citizens to speak their mind and express their opinions, it has its limitations. Checkoway’s (1981) analysis of public hearings revealed several shortcomings that are still relevant today: hearings are often held during weekday working hours at government facilities, as opposed to local neighborhood areas; proposals are often too technical for the average citizen, particularly low-income/low-education or minority citizens, to comprehend; attendees usually do not adequately represent their general community; and the hearings usually have a limited impact on the actual governmental agency decision. Additionally, some authors have suggested that public hearings are sometimes used by an agency to satisfy the minimum legal requirements of citizen participation (Arnstein, 2019; Checkoway, 1981); or develop good public relations for the agency, or diffuse antagonism (Checkoway, 1981).

Regardless, even if public hearings do not always accomplish what they were originally created for, they are still an opportunity for citizens to air grievances publicly and to also build community organization.
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abilities for all citizens, especially when the government resources and
band and computer access may still be difficult in some communities,
ies can be used efficiently and effectively; the quality of the equipment;
autonomy of use; social support networks; and experience with the
technology for retaining benefits from its use (Arighi et al., 2021).
Especially now, the pandemic is causing people to push the limits of
technology and rely on technology more than ever before. Even before
the COVID-19 pandemic, the digital divide was starting to play a larger
role in today’s society as Internet access and technology were being
required more and more for daily life activities and social inclusion.
From online shopping to banking access to applying for jobs, from
obtaining public information and learning new skills to connecting with
friends and family and even to telemedicine, getting online access was
becoming essential.

Naturally, government services are also switching to the online
format. The term e-Government, or when a government uses ICTs to try
to provide more direct public services to its citizens, is becoming more
common as the switch to online services can increase the efficiency
and transparency of services, while saving taxpayer dollars and providing
more citizen-centric participatory opportunities (Mossey et al., 2018).
With many government buildings closed, obtaining the usual services
now requires access to the Internet. In the current situation, access to
technology determines who is able to access critical information and
recommendations from the government and health organizations as well
as who can receive up-to-date information. Fortunately, while broad-
band and computer access may still be difficult in some communities,
the ability to get online with smartphones opens up a new set of possi-
bilities for all citizens, especially when the government resources and
services are easily found online.

Interestingly, one study by the Pew Research Center found that while
the digital divide still exists between black and white populations, the
technological platform used makes a difference (Mossey et al., 2018).
While broadband and computer adoption are linked to socio-economic
and demographic factors, these trends do not occur when examining
cellphone and smartphone usage, where black and white individuals are
equally likely to own some sort of mobile device (Mossey et al., 2018).
Cellular data is different than broadband access, and while speed dif-
ferences exist, cellular data still allows the user to get online access
without the need for costly broadband or computer equipment.

Traditional public providers of information such as schools and li-
aries, are often cited as being a way to help narrow the digital divide
by providing technology and digital literacy education, but they them-
selves are also subject to the digital divide; especially in terms of bud-
gets, rural libraries tend to get less or limited resources that lead to a
limited ability to provide assistance to the public (Cohron, 2015). Cen-
tral service centers that have computers and Internet access via satellite
that serve a village or region in remote areas have also been proposed,
although the costs to maintain such sites often become too expensive.
Without the means the bridge the digital divide, the gap will only widen;
those who already have access to the technology will continue to benefit
while those without it will only be left further behind.

COVID-19 has only demonstrated the importance of having tech-
nology and Internet access as remote work and e-learning and even
health tracking (like digital contact tracing and digital vaccination
certificates) become more ubiquitous, and those on the wrong side of
the divide are at a significant disadvantage. The digital divide has been
exacerbated by the pandemic and is an unavoidable challenge we are
facing today especially as governments try to ensure the public voice can
be heard equally no matter where someone lives or what technology
they have access to.

2.4. Rural America

According to the US Census, rural areas are defined as all population,
housing, and territory not included in an urbanized area or urban
cluster; counties can be classified as “completely rural,” where 100% of
the population lives in a rural area; “mostly rural,” where at least 50% of
the population lives in a rural area; or “mostly urban,” where more than
50% of the population lives in an urban area (Martin, 2018). In the US,
97% of the land is considered rural, although only 19.3% of the popu-
lation or approximately 60 million people (one in five Americans) live
here (What is Rural America?, 2019). During the pandemic, rural areas
have been especially affected due to low available financial resources,
minimal or reduced access to health services, increased isolation, and
inhibited accessibility (De Luca, Tondelli, & Åberg, 2020). Additionally,
public health researchers fear that rural residents will suffer more than
urban and suburban residents due to existing rural/urban health dis-
parities, such as rural residents participating in fewer preventative be-
haviors, having a more negative attitude, and having poorer information
evaluation abilities (Chen & Chen, 2020). To add to this, even before the
pandemic, accessible rural medicine was facing multiple challenges
including transportation difficulties for patients, limited access for spe-
cialty care, closing of rural practices and hospitals, and dwindling of the
rural health care workforce (Mishori & Antonio, 2020).

It should be noted that while rural populations may be at increased
risk of contracting the virus due to their behaviors, overall, they them-
selves may be less likely to be affected due to the amount of physical
space available to them. Rural areas are more open and the chances of
coming into close contact with someone else are decreased (Stufano
Melone & Borgio, 2020). However, while the chances of randomly
encountering someone else during a normal day is less than in an urban
setting, whenever there are social activities that will cause rural resi-
dents to gather in groups, such as public hearings, and without prac-
ticing social distancing and other safety measures, they are still likely to
transmit the virus. Many urban residents have also fled to a second
house in rural areas to escape from the virus or lockdown from major
urban centers (De Luca et al., 2020), although their move and usual
behaviors can still increase the chances of spreading COVID-19. It may
also be possible that rural residents are less likely to social distance due
to their lack of broadband access (Ali, 2020).

2.5. Rural broadband and Internet access

The pandemic has demonstrated the severe need to improve our
digital infrastructure and existing telematic networks in urban areas as
well as rural areas (Errichiello & Demarco, 2020; Pasolini, Grimaldi,
& Coppola, 2020). The Federal Communications Commission (FCC) esti-
mates that approximately 21.3 million people in the US do not have
access to broadband (defined by 25 Mbps download/3 Mbps upload
speeds accessible through fiber, coaxial cable, digital subscriber lines,
fixed wireless, and satellite) (2019 Broadband Deployment Report,
2019; Ali, 2020). In rural areas, at least 22.3% and possibly even up to
50% of the residents lack broadband access compared to 5.6% of urban residents (Ali, 2020), although recently some rural areas have been gaining connections; the largest gains have been in rural regions with an increase of 4.3 million connections from 2016 to 2017 (2019 Broadband Deployment Report, 2019). The average “mostly rural” county had a broadband subscription rate of 67%, and an average “completely rural” county had a broadband subscription rate of 65% (Martin, 2018).

However, while the technology gap is slowly closing, especially in rural regions, a new concern with the digital divide today is the quality or speed of the Internet; a slower speed today means less access and also negatively affects how someone can access and participate online (2019 Broadband Deployment Report, 2019; Cohron, 2015). This is of major concern since as the push to develop 5G networks and deploy fiber optics in urban settings increases, rural residents may be stuck in a “dial-up age” (Ali, 2020). Additionally, rural areas with broadband support tend to pay higher prices although their speeds are lower and less reliable than in urban areas since their broadband is often controlled by an unregulated monopoly provider (Feld, 2020).

Previous studies have revealed eight major benefits of developing rural broadband: economic development, income growth and business location, precision agriculture, increased housing values, rural education, telemedicine, and civic engagement (Ali, 2020). The current pandemic situation highlights how these benefits could greatly affect the rural population, particularly with regards to telemedicine and civic engagement. The pandemic has quickly pivoted traditional medical practices to telemedicine, where health care professionals are able to see and monitor patients with acute and chronic conditions, in addition to evaluate patients for coronavirus symptoms and monitor those patients isolating at home (Mishori and Antono, 2020). Civic engagement is core to many citizens’ lives, and during the pandemic, different counties have resorted to different methods to allow as much as possible; however, the main requirement for nearly all the current methods involves having broadband access.

3. Methods and results

This study compiled and analyzed the data from several sources to present an informed set of best practices on how to safely conduct a public hearing during the pandemic. For the first data set, nine counties in the state of Florida were analyzed by evaluating the current number of COVID-19 cases reported, broadband availability for the region, and public hearing strategies these counties have implemented. For the second set, a recent survey of citizens throughout Florida regarding how the COVID-19 pandemic has affected their county and municipality’s public hearing process was examined.

3.1. Analysis of nine Florida counties

Florida has a population of about 19 million according to the 2010 Census, spread across 67 counties. In this paper, the three counties with the highest population in Florida (Miami-Dade County with 2,716,940; Broward County with 1,952,778; and Palm Beach County with 1,496,770), median population (Indian River County with 159,923; Citrus County with 149,657; and Highlands County with 106,221), and smallest population (Franklin County with 12,125; Lafayette County with 8422; and Liberty County with 8354) were examined. In terms of percentage of total population of Florida, Miami-Dade represents 14%, Broward represents 10%, Palm Beach represents 8%, Citrus represents 0.8%, Indian River represents 0.8%, Highlands represents 0.5%, and Franklin, Lafayette, and Liberty Counties each represent less than 0.1% of Florida’s total population. Miami-Dade County, Broward County, Palm Beach County, Indian River County, Citrus County, and Highlands County are considered “mostly rural”; Franklin County is considered “mostly urban”; and Lafayette County and Liberty County are considered “completely rural” according to the US Census classification (Martin, 2018).

Fig. 1 shows the location of the counties in Florida as well as each county’s population, area, number of residents that were tested for COVID-19, number of positive COVID-19 cases, and percentage of tested individuals who were positive. The raw data were obtained from the Florida Department of Health, Division of Disease Control and Health Protection (https://floridahealthcovid19.gov/) and Florida Geographic Data Library (FGDL; https://www.fgdl.org/) and entered into a GIS map by the researchers. The largest counties (Miami-Dade, Broward, and Palm Beach) had the most residents tested with a total of 612,433; 388,452; and 253,350, respectively. These three counties also had the highest percent positive with Miami-Dade County being 18.90%, Broward County being 14.00%, and Palm Beach County being 12.90%. For the median counties, Indian River County had 24,477 total tested cases, in which 8.90% were positive. Citrus County had 16,486 tested cases with 7.20% positive. Highlands County had 14,597 in total tested cases with 7.80% positive. For the smallest counties, Franklin County’s total test cases were 2480 with a 4.20% positive rate. Lafayette County had the least total tested number out of all the counties with 858 people being tested; however, its percent positive rate was 11.70%. Liberty County, which had the smallest population of all the counties, had 3010 tested cases with an 11.80% positive rate.

It is worth noting that while the counties with the highest populations (and highest population densities) had the highest percent positive and highest number of individuals tested, the counties with the smallest populations had higher percent positives than the median counties. This matches existing research that states that rural areas tend to have minimal or reduced access to health services as well as existing health disparities compared to urban areas, which make them more likely to get infected with COVID-19 (Chen & Chen, 2020; De Luca et al., 2020).

Fig. 2 shows the broadband availability of the counties that were examined. The three largest counties (Miami-Dade, Broward, and Palm Beach) and three middle counties (Citrus, Indian River, and Highlands) all had three or more fixed residential broadband providers available to them. One point to note is that in terms of location, Miami-Dade, Broward, and Palm Beach counties are situated on top of one other on the southeastern end of the Florida peninsula. To the left of the counties is a large wildlife reserve, which could explain why the broadband options are more limited there. The more urbanized sections in these counties have three or more providers. The three smallest counties (Liberty, Franklin, and Lafayette) were mostly limited to only two providers. The limited availability matches the typical pattern of rural areas, where there is a lower population density per square mile and therefore not as profitable for broadband providers (Feld, 2020).

Table 1 shows the nine counties and how the board conducted their public hearings and how the public were allowed to participate. The two columns (The Board and General Public) were broken down into whether the meeting was conducted in person or remotely. The information was obtained from the counties’ websites in July of 2020, after the reopening plan for Florida was implemented in May of 2020. While the researchers attempted to include the most accurate information, state and county policies have changed and will likely change throughout the pandemic. For instance, some counties were holding public hearings physically in an indoor setting until the governor of Florida issued an executive order allowing hearings to meet virtually. Some counties did not specifically mention what options would be available, and some counties also had already previously been using technologies and therefore did not need to significantly adjust their virtual meeting format.

Miami-Dade County conducted commission meetings virtually, and included telephone participation, video conferencing via Zoom, and webcasting and livestream on TV channels and YouTube. In Broward County, physical attendance at the commission meetings was suspended, and any members of the public who wished to speak at the hearing online could register beforehand. If the member did not have Internet access, he/she could contact the county using a provided email,
phone number or mailing address to find locations that had an access point. The meetings were all streamed on Facebook, Twitter, and YouTube. Palm Beach County held the commission meetings at a physical location. Plexiglass panels were installed between each board member on the stage, and the board accepted typed comments online in addition to the comments from the general public who were physically attending. A TV channel web stream of the meeting was available for meetings; the public could view the meeting by tuning in to a local TV station or by going online. Citrus County provided a physical commission meeting location for both the board and the general public. In addition to this, the meeting was available for livestreaming. The Indian County commission meetings were held in at a physical location, but the public could attend virtually by accessing YouTube Live or watching on a local TV channel. Highlands County commission meetings were conducted virtually through a livestream and conference call. The public could also watch the livestream through YouTube and local TV station. The Lafayette County commission meetings were held in a physical location with no mention of virtual options. The Liberty County commission meetings were held virtually through Zoom.

Based off Table 1, the board members tended to use a combination of virtual and in person meetings. Allowing the public to participate remotely in hearings was a popular approach, and all three of the median counties allowed the public to participate both in person and remotely. Miami-Dade County and Broward County, with the highest number of positive cases, tended to favor being entirely remote.

Data from Table 1, Fig. 2, and other available literature, demonstrate that a hybrid public hearing approach is the most effective method given the circumstances as it serves as a compromise between still allowing the public to engage in the public hearing, but also helping to keep other members of the public and board members safe. In a hybrid hearing approach, everyone can be given the option as to whether to attend in person or attend virtually. Additionally, some of the county residents currently reside in other parts of the country or even outside the US, and COVID-19 travel restrictions would limit their ability to participate in a traditional public hearing. Therefore, a hybrid planning commission would be essential to accommodate the needs of all groups and effectively protect the public interest.

3.2. Citizen participation in public hearings survey

Around the time after the initial data analysis for this study was completed, 1000 Friends of Florida, a non-profit smart growth advocacy group, also became concerned with the lack of ability for some Floridians to participate in public hearings due to COVID-19 (1000 Friends of Florida, 2020). The organization developed a list of pertinent multiple-choice survey questions internally and distributed the survey using SurveyMonkey.com to its main email distribution list (n = 14,480 members). The request to complete the survey was sent twice in July of 2020. The survey received 184 responses, representing 40 counties and 64 municipalities across Florida.

The results of the survey demonstrated similar trends found in the analysis of the nine counties. When only examining the nine counties in this study, there were 9 responses to the survey from Miami-Dade, 11 from Broward, 10 from Palm Beach, 2 from Citrus, 1 from Indian River, 0 from Highlands, 0 from Franklin, 0 from Lafayette, and 0 from Liberty. Over half of the respondents reported that their county (56%) and municipal (55%) governments had proceeded with comprehensive plan amendment decisions during the pandemic, and many participants reported participating in the hearings at about the same frequency or more as before the pandemic (57% county; 62% municipality). The formats being used most frequently for participation in the county included in-person (56 responses); via live videoconferencing technology like

Fig. 1. COVID-19 cases in select counties [GIS Map].
Zoom or GoToWebinar (67 responses); via live audio/telephone conferencing (36 responses); via live written comment submitted by email or live chat (22 responses); via pre-written comments submitted by email or letter before the meeting (52 responses); and other (16). The least frequently used formats were via pre-recorded video submission (5) and pre-recorded audio submission (4). The municipality participation mirrored the county with in-person (43 responses); via live videoconferencing technology like Zoom or GoToWebinar (37 responses); via live audio/telephone conferencing (32 responses); via live written comment submitted by email or live chat (14 responses); via pre-written comments submitted by email or letter before the meeting (36 responses); and other (12). The least frequently used formats were also via pre-recorded video submission (2) and pre-recorded audio submission (3). Finally, a majority of the participants felt their local governments were doing a good job providing their citizens with an opportunity to still participate in public hearings (62% county, 61% municipal).

### Table 1
Hearing methods adopted by county.

| County   | The Board | General Public |
|----------|-----------|----------------|
|          | In person | Remotely       | In person | Remotely       |
| Miami Dade | ✔         | ✔              | ✔         | ✔              |
| Broward   | ✔         | ✔              | ✔         | ✔              |
| Palm Beach | ✔         | ✔              | ✔         | ✔              |
| Citrus    | ✔         | ✔              | ✔         | ✔              |
| Highlands | ✔         | ✔              | ✔         | ✔              |
| Franklin  | ✔         | ✔              | ✔         | ✔              |
| Liberty   | ✔         | ✔              | ✔         | ✔              |

4. Discussions

After evaluating the different sets of data and methods used by the different counties in Florida, a best practices guide was produced to aid city planners, administrators, and other appropriate staff (Fig. 3). The recommendations include observing general safety, leading by example, clearly advertising public notifications, choosing appropriate locations, rehearsing the hearing and checking the technology, implementing the hearing day strategy, and following up after the hearing. This is intended to serve as a guide; each community’s situation may be different with regard to size and available resources and will need to be adjusted as necessary.

4.1. Observe general safety

The first step before arranging a public hearing is for all staff and administration to be familiar with recommended safety guidelines provided from reputable organizations such as the World Health Organization (WHO) or Centers for Disease Control and Prevention (CDC). For instance, while physical distancing and population lockdown are considered primary measures to be taken, if people need to meet with other people, the WHO has recommended keeping 6 ft apart from others to minimize the risk of infection (Megahed & Ghoneim, 2020). Staff should meet to discuss how to implement the current WHO, CDC, and local guidelines. For example, one county in Florida arranged for two staff members to clean the podium table and speakers with alcohol-based wipes after each member of the public was done speaking. This county also put up signs reminding the public to practice social distancing at the auditorium entrance and on seats and marked the floors (Fig. 4). They prepared masks, sterilizing wipes, and hand sanitizers for the public upon request. Some counties may want to consider the installation of permanent or moveable plexiglass panels to help
create separate physical divisions.

4.2. Lead by example

Many of the past social behaviors considered normal and proper are now considered unsafe (e.g., handshaking, hugging), so unsafe behaviors should be discouraged while safe behaviors (e.g., social distancing, mask wearing, frequent handwashing) should be encouraged collectively throughout the community (Templeton et al., 2020). The community leaders should aim to promote a shared social identity that expresses how the new safe health behaviors are normal, in the community’s interest, and under shared goals (Templeton et al., 2020). The actions of the leaders are crucial during times of crisis, and the leaders can influence the behaviors and beliefs of their citizens. When compared to other countries, the US has consistently experienced higher death rates and has not been that effective in controlling the pandemic, likely due to a combination of factors including a “weak public health infrastructure and a decentralized, inconsistent US response to the pandemic” (Bilinski & Emanuel, 2020, p. 2101). Countries that have also had higher death rates, such as Brazil and Mexico, were those whose leadership have downplayed the severity of the virus.

4.3. Clearly advertise public notifications

Typically, planning staff send out hearing notifications to neighbors within 300 ft. or 500 ft. related to each case. These public notices and advertisements should clearly list all the available options available for the public. Many times, the staff are able to obtain an estimated number of the public participants who will attend the hearing in person based on the number of opposition letters received. During the pandemic, the
hearing notifications should clearly state additional options to participate and include specific instructions, such as videoconferencing links and call-in numbers. QR codes can also be printed to help residents who might have trouble navigating to a virtual public hearing session. Additionally, the notices can include options for participants to send in their questions beforehand, in case the participant is unable to attend the session.

4.4. Choose appropriate locations for the hearings

Planners want to provide the general public with as many options to participate in or speak up at public hearings as possible. In the hybrid public hearing model, the number of typically available seats may be reduced because of social distancing policies (Fig. 5, each of the seats are 6 ft apart), so it would be helpful to plan for outdoor seating (weather permitting) or other satellite sites around the county (Fig. 6). Having the hearing available at satellite sites would also have the added benefit of providing more convenient locations and reducing the number of public attendees gathering together in one location. Each of the outdoor locations and satellite locations should have the general safety procedures in place and be equipped with a microphone and speaker system (and possibly display) so the participants can listen and make their voice be heard. The staff should also prepare handouts with basic safety information and also a link or QR code to the hearing if members of the public arrive at the site and decide not to stay due to the number of people.

4.5. Rehearse the hearing and check the technology

The next step would be to rehearse plans for the actual hearing and conduct technology checks. Planning staff and other county staff should periodically meet together to estimate the number of public attendees and other possible scenarios to determine how many meeting locations will be needed, who will be monitoring what sites, how many phone operators will be needed, IT support availability, security personnel, COVID-19 safety enforcement for temperature checks and maintaining social distancing, and so on. Adding audio and video capabilities to new locations can also present their own set of challenges. For instance, when creating outdoor seating, the IT staff will need to account for glare and other natural occurrences like rain, Internet speeds, sound and echo, ambient noise, power availability, and so on.

With the increased use of online meetings, each county should also determine whether any sort of digital security will be required (such as passwords or registration) to help ensure a smooth meeting without disruptions. Each new security measure will increase the digital safety but could also add another layer of complexity for the virtual users.

Therefore, it would be helpful for counties to put together a training program or documents that will help users when they try to connect virtually. Many users may be unfamiliar with computers or virtual meetings and will need additional assistance. For example, one common issue is keeping the microphone or video on when not speaking and causing feedback, so all moderators and users should be familiar with the mute feature. For the key speakers who will be participating virtually, such as the board members or presenters, the IT support should try to perform a dry run prior to make sure they are familiar with the format of the virtual meeting to avoid any delays during the actual hearing.

4.6. Implement the hearing day strategy

On the day of the actual hearing, staff should plan to be at their designated meeting sites at least an hour prior to the start time to ensure that they have enough time to conduct a final inspection and prepare handouts. The general public who are attending the meeting in person typically receive a hard copy of the agenda and safety reminders. The staff should also be prepared to help guide participants and assist them in maintaining social distancing and other safety rules (Fig. 7). Finally, each participant should be asked to sign-in and leave a name and contact method, should the need arise to reach out to them.

For the staff preparing the virtual meeting, they should run all the equipment and sound checks and start the meeting early to make sure the software is working. Any digital handouts should be ready for
participants to download. It will also be helpful to open the meeting on time, but to wait a few minutes before actually starting the meeting agenda. This will allow new participants unfamiliar with the virtual format time to log in and become familiar with the system. If chat questions are allowed, a staff member should be trained and actively monitoring the chatroom to make sure no questions from the public are skipped.

4.7. Post hearing follow up

When the hearing has concluded and all the physical attendees have left, all surfaces should be thoroughly cleaned according to local, CDC, or WHO guidelines to help prevent the spread of the virus. After the hearing, the minutes should also be made available online. It can be posted or advertised in multiple locations to make it easier for participants to access (for instance, they can be posted on the county website as well as in social media). Additionally, there should be an option for public attendees to leave feedback on how to improve the hearing. Finally, if a member of the public who attended the meeting is later found to have tested positive for COVID-19, the county should help to aid in contact tracing. Since attendance for the meeting should have been collected, it should be easier to try to contact everyone who might have been exposed and provide them with medical advice.

5. Future approaches

At the time of this writing, there is currently no end in sight for the COVID-19 pandemic. Many policies were put into place that were stop gap measures and expected to be temporary, but now need to be revised for the long term. A comprehensive technological framework will need to be thoroughly planned out to make sure different counties and communities are able to continue functioning in these times. For instance, the upgrading of technology to increase wireless speeds is not enough by itself. There needs to be considerations for long term main-tenance, operational costs, future upgrades, etc. If there is new technology available, what good will it be if the users do not know how to use it or take advantage of it? There needs to be a proper combination of hard technologies as well as soft technologies to ensure maximum efficiency and help the largest number of citizens.

Considering accessibility is also quite important. Many counties were suddenly forced to switch to the virtual meeting format, so they did not have time to properly implement accessibility measures. When a meeting is online, they should be made as accessible as possible. Common examples could include having active closed captioning or a sign language interpreter. A transcript of each meeting can be created. The presented materials can also be pre-screened to make sure they meet visual accessibility compliance. Each community will be most familiar with their own needs and should make any necessary accommodations as needed.

Another consideration is the creation of a technology assistance and loaning program. In some areas, not everyone may have access to a computer or smartphone. In the past, libraries and schools may have been able to provide computer access, but the pandemic has forced many of these locations to be closed or services to be modified. The creation of a program that loans out or shares donated computers and laptops and trains users could be quite beneficial for some communities. With more of life’s daily services requiring online access, this could help enhance the ease of living for a community. At the same time, with schools, libraries, and other city units struggling to different degrees, it might also be possible for the city or county to work together with them to try to justify a larger upgrade that helps improve the technology of multiple departments across the county. It is also important to note that while having access to the actual technology is important, so is to being able to provide education and training on how to use the technology.

Without the knowledge of how to use the technology, any piece of technology is just an expensive paperweight.

Social distancing is one of the easier and more widely accepted methods of trying to limit the spread of the virus. The best practices provided in this paper covers some basic ideas, but these can be expanded. For example, communities can consider the use of larger scale options that minimize work. Examples of these could be using self-supported wireless equipment or outdoor projectors. The digital parking lot is an idea where participants could drive to a large parking lot, have wireless access to hear and participate in a meeting, and even possibly have a large screen with projector set up so that they could participate from the safety and comfort of their own cars.

Regarding planning and safety, another concept to investigate is the expansion of e-Government and the simultaneous digitization of other city and county services. As part of a larger technology revisioning plan, other services can be converted to online and streamlined to not only minimize spread of the virus, but to also increase the efficiency of the services offered and reduce the day-to-day workload of staff by providing more automated information to citizens. For instance, typically to apply for special use permit, the applicant mails in or hands in a paper-based application to the zoning/planning department. Then the applicants needs to proceed to the Building Department for the actual building permit after the Special Use Permit is approved by the Board. Due to the concerns with COVID-19, departments can transition to a 100% digital format for all permits that follows an automatic workflow between departments. Being able to track each step of the application process online and knowing what department is currently reviewing it would make the county employee’s work more efficient and safer, while at the same time reassuring the applicant.

As part of a technology revisioning plan, an app can also be developed that provides all relevant county information and makes it easier for citizens to find what they are looking for. It can contain meeting times, online links, and other features, such as a digital check-in to meetings. Having a digital check-in feature can help the county gain attendance statistics and if needed, can help with contact tracing and provide relevant COVID-19 information to the user.

Going even further, counties can consider new construction strategies overall to deal COVID-19 and help with the prevention of other possible outbreaks in future architecture. The architectural components can include modular construction, adaptive reuse of facilities, lightweight and adaptable structures, and the use of hygienic building materials (Megahed & Ghoneim, 2020). Adjustable walls and screens that can easily be moved or segmented would make redesigning rooms easier and allow for the quick and easy conversion of the principal function of the room to be adapted to fit whatever type of event is being held (Stufano Melone & Borgo, 2020). For instance, one large auditorium with these adjustable walls could be quickly separated into multiple rooms to decrease exposure to others.

While construction strategies are being considered, this is also an opportune moment to implement sustainable design and development practices of the built environment. The LEED (Leadership in Energy and Environmental Design) rating system, to a certain extent, and WELL Building Standards have appropriate strategies on how to manage and prevent viral infections. For instance, WELL strategies regarding the prevention and preparedness, resilience, and recovery from COVID-19 fall into eight themes: promote clean contact; improve air quality; maintain water quality; manage risk and create organizational resilience; support movement and comfort, including work from home; strengthen immune systems; foster mental resilience; and champion community resilience and recovery (International WELL Building Institute, 2020).

A final, broader future concept is to plan for a smart city. While the term smart city has varying definitions, the overall idea is that a smart city will make use of information communications technologies (ICT), investments from human and social capital, and collaborative innovations designed to improve the quality of life for its citizens (Errichiello & Demarco, 2020). Ideally, by making use of intensive development and improved technologies, the smart city will one day
help its citizens become more resilient and prepared to face any crisis by using a network of computers, artificial intelligence solutions, big data, and the internet of things (Errichello & Demarco, 2020). For example, with a smart city, remote working, e-learning, telemedicine, etc. can all be easily accessible so should there be another pandemic, there would only be minimal disruption to a person’s life. The pandemic has already acted as a catalyst to improve ICTs everywhere, and this can lead to the development of a smart city and rapid urbanization. All this can be achieved with the proper considerations.

6. Implications and conclusion

As COVID-19 is now responsible for a global pandemic, the results of this study have implications that expand beyond just rural communities in the state of Florida and the USA; they can be adapted to meet the needs of different communities worldwide. Countries around the world frequently utilize some type of public participation for its citizens, and all are facing similar safety challenges due to COVID-19. As infection numbers are constantly in a state of flux with no clear end in sight, the resulting best practices from this study can be widely adapted to many public participation situations based local factors, such as technology level available, location, or population density. Communities will first need to figure out what is needed for their citizens and then adjust the strategies. For example, based on individual needs, countries will need to consider Internet availability (broadband, cell, or satellite), reliability, speeds, and maybe even how to fit in the strategies if the Internet is censored. While these best practices from this study are targeted for more mid-sized rural communities, they can be applied to other daily situations as well that require public gatherings. This could be useful for smaller businesses, volunteer meetings, or even faith-based gatherings.

One important note about the best practices is that they are not a one size fits all, and there is no perfect solution for the current situation. The pandemic is constantly changing, and every situation will have different variables so that the practices may need to be scaled or adjusted. Every country’s infrastructure and available resources will be unique and not every strategy may be feasible. At best, these practices can serve as a guide to lead to individualized solutions. Simply copying everything without the appropriate adjustments could lead to disastrous results as COVID-19 is a serious threat to our livelihood.

Additionally, the list of best practices resulting from our study is based off the data we received, but it is certainly not comprehensive. Other similar studies in different cities or countries may result in strategies more suited for a specific geographic location or urban setting. For instance, cities where public transportation is popular can make use of rider alerts located at the stations or rider apps. Cities with large communities with non-native speakers may need to focus more effort on translating materials and getting local communities leaders involved in the effort.

COVID-19 is here for the long term, and its effects will be felt for years. It has reached nearly every country on the globe, and every community has been affected by it one way or another. However, life will continue to go on as we all struggle to slowly recover; the government will continue to function, communities will grow, and planning and public participation will still need to take place. While local government reasses their policies, now would also be an optimal time to reconsider the future of urban planning, especially in terms of the digital divide and planning for smart city improvements. Technological improvements, such as improved broadband access and speeds, can open up new limitless opportunities for residents, especially those in rural areas. Schooling, jobs, and all aspects of life are heading for digital transformation, and without the technology will only fall further behind and be left at a greater disadvantage. The global pandemic has forced us into a new digital world, and we must be able to adapt to make the best of things. There are going to be changes, and the new digital normal is here to stay.

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