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The Introduction of an Emergency Mitigation Module

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Monterey County Connect:

The Introduction of an Emergency Mitigation Module

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May 14, 2021

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Abstract

The Monterey County Office of Emergency Services (MCOES) serves all community members who reside in Monterey County, CA. While they do not provide active emergency services, they do provide mitigation, preparedness, response, and recovery services when an emergency will take or has taken place. Although not a particularly active facility, they receive a sizable amount of community support and outreach. However, when it comes to the rural communities, which make up a majority of the county's population, the MCOES has a difficult time connecting to a majority of its members. With the creation of an Emergency Mitigation Module that will someday be added to the menu of the existing Monterey County Connect mobile app, the MCOES hopes to provide members of these rural communities as well as the rest of the citizens of Monterey County with a user-friendly option for what to do before, during and after an emergency occurs.

Keywords: Community, Mitigation, Emergency,

Agency & Communities Served

Agency – Monterey County Office of Emergency Services.

Type of Organization – Local Government office serving all of Monterey County.

Agency Mission, Vision and Values - The function of the Office of Emergency Services is to coordinate all emergency preparedness, response and recovery functions and responsibilities as necessary to carry out the direction of the Board of Supervisors and the provisions of Chapter 2.68 of the County Code. The Monterey County Office of Emergency Services is responsible for the following:

- Ensure all phases of emergency management are addressed in strategic planning efforts, building the core capabilities and disaster resilience within the communities of Monterey County.
- Organizing, staffing, and operating the Op Area Emergency Operations Center
- Provide information and guidance to the public and elected officials including emergency warning and alerting.
- Provide resource management inventories of critical assets, supplies and equipment necessary to support emergency response and recovery operations.
- Reviewing and maintaining internal and external emergency operations plans and preparedness programs for the Operational Area.
- Ensure that emergency planning follows state and federal guidance,
- Identifying and analyzing potential hazards and recommending appropriate mitigation measures.
- Conduct ongoing emergency preparedness and educational campaigns.

- Serving as the emergency management point of contact for government officials, public safety, organizations, nonprofit and community-based organizations, city, county and private industry partners and stakeholders (Agency Mission, 2020).

Types of Programs and Services Provided to the Community

Prepare Today – This is where members of the community can learn how to make a disaster plan, learn how to help/assist those with access and functional needs during an emergency, how to build a plan for pets, how to build your own emergency kit, how to stay informed, and ways of interacting with your neighbors in order to help each other out during disastrous situations (Agency Mission, 2020).

Hazard Ready – Members of the community can learn what to do during specific emergency situations such as erosions, floods, tsunamis, dam failures, hazmat situations, wildfires, earthquakes, landslides, and windstorms (Agency Mission, 2020).

School Ready – The Monterey County Office of Emergency Services partners with other local agencies in order to form a School Safety Workgroup where they visit schools and teach students/teachers how to prepare for disasters (Agency Mission, 2020).

Primary Community Partners – The Monterey County Office of Emergency Services partners with several agencies in order to better serve the community. Some local agencies such as fire and police departments, state agencies such as Cal EPA and Camp Roberts Army National Guard, federal agencies such as the national weather service, Coast Guard and FEMA and non-profits/community-based organizations such as the SPCA of Monterey or the Monterey Community Emergency Response Team (CERT).

Communities Served

The Monterey County Office of Emergency Services (MCOES) serves the residents of the entire county which occupies an area of 3,324 square miles and has 100 miles of coastline, two coastal ranges (the Santa Lucia and Gabilan Mountain Ranges), and two valleys (the Salinas and Carmel Valleys) (Operational, 2020). According to the U.S. Census, the county's population distribution by race/ethnicity is 59.4% Latino, 29.4% White, 6.7% Asian, 3.4% Black and 2.6% American Indian (U.S. Census, 2010). The average age in Monterey County is 35 years old. 26.2% of the residents in the county are under 18, 60.2% are between the ages of 18 – 64, and 13.7% are over 65. The county is nearly even in regard to division by sex with 50.7% of the county being male and 49.3% female (Census, 2010). Although English is the language most Americans learn since birth, 55.1% of residents in Monterey County speak a different language other than English (U.S. Census, 2010). According to the MCOES' stratification system, "cities are often grouped into two classifications: the valley cities consisting of King City, Gonzales, Greenfield, Salinas, and Soledad; the peninsula cities consisting of Carmel-by-the-Sea, Del Rey Oaks, Marina, Monterey, Pacific Grove, Sand City, and Seaside" (Operational, 2020). The interesting part about this division is that the valley cities, which tend to be the more underserved communities in the county are customarily made up of Hispanic residents while peninsula cities generally have a higher number of white residents. Although divided with strategic motives and by geographic location, one cannot help but question the influence behind its design. Education statistics in Monterey County are not so impressive; only 71.3% of the county's residents have graduated high school and 24.5% have a bachelor's degree or higher. Compare this to the State of California where 82.9% of all residents have graduated high school and 33.3% have a bachelor's degree or higher (U.S. Census, 2010). The median household income in Monterey

County is $66,676; slightly lower than California which has a median household income of

$71,228 (U.S. Census, 2010). The most common jobs held by residents of Monterey County,

CA, by number of employees, are Farming, Fishing, & Forestry Occupations (21,312 people),

Office & Administrative Support Occupations (19,256 people), and Sales & Related Occupations

(15,808 people) (Monterey, 2010). The average home in Monterey County is valued at $477,200

and the average price of gross rent is $1,401 per month (U.S. Census, 2010). This could be why

48.7% of all residents in the county rent instead of own (Census, 2020).

Community Needs and Assets

The Monterey County Office of Emergency Services (MCOES) plays a unique and

peculiar part in the county's infrastructure. Although many hear the word 'emergency' and

immediately think action and disaster, the MCOES is anything but that. It primarily serves two

purposes: to write policies regarding mitigation, before and after disasters, and it was also

designed to serve as a back-up/support agency when emergency situations become too large for

one emergency unit or department to handle. Because of its distinctive role, the biggest problem

faced by those in the community it serves generally comes before and after large-scale incidents.

Oftentimes the county's residents do not plan ahead for emergencies such as earthquakes, fires,

power outages, tsunamis, etc. Because of this lack of poor planning residents will often find

themselves severely affected after the incident has occurred. This causes residents to lose

property, forcing many in the county to go to local shelters or even become homeless. According

to the U.S. Census, nearly 60% of all residents in Monterey County are Hispanic. A much higher

number than the State of California at nearly 40% (U.S Census, 2010). Although not a concrete

figure, the MCOES Emergency Manager once said, "it is incredible that the peninsula makes up

about 20% of the population, yet they receive about 80% of the county services". He stated that

much of its influence had to do with those who were in positions of power combined with the fact that most of the time those who live on the peninsula are the only ones attending the MCOES community meetings. This all ties into another one of the MCOES' biggest challenges, rural community engagement. Part of this stems from educational attainment. One of the purposes of the MCOES' existence is to inform and educate the public on a regular basis. Although Monterey County is made up of 59.4% Hispanic residents, only 7.5% of these residents obtained a college degree compared to 42.1% by their white counterparts although they only make up 29.4% of the county's population (U.S. Census, 2020). These educated people often have good jobs and schedules that allow them the time to attend such weekday meetings while the non-educated people have no choice but to work one or more jobs.

Problem Description

Although the MCOES' duty is to serve all of the citizens in the county equally, specific contributing factors and reasons have made this inaccurate. Although not done on purpose, the MCOES has an extremely hard time reaching out to the rural communities despite the county being 59.4% Latino (U.S. Census, 2010). Some of this has to do with lack of trust in local government due to the Hispanic community's history with immigration agencies. According to Koch, "when citizens are asked whether Caucasian government officials make decisions on spending and hiring to advantage whites to the disadvantage of blacks and Hispanics, racial minorities state that they expect racial bias" (Koch, 2018). It also has a lot to do with socioeconomic statuses. Most meetings regarding services and resources are held on weekdays during work hours. Most of those who are able to attend the meetings are older, retired people from more affluent/white communities. Because of this, those in the more rural communities do not receive the proper resources which puts them at greater risk during and after emergencies.

Problem Model

CONTRIBUTING FACTORS TO BROADER PROBLEM	BROADER "MACRO-LEVEL" HEALTH/SOCIAL PROBLEM	CONSEQUENCES TO SOCIETY
Lack of trust in government entities	The Monterey County Office of Emergency Services has a hard time reaching out to the rural communities.	Funds/resources are dispersed inadequately
Socioeconomic status'		Puts the rural communities at greater risk
Language barriers		Furthers lack of trust chain regarding government agencies

Project Title, Description and Justification

Project Title: The Introduction of an Emergency Mitigation Module

Project Description: The County of Monterey released a "public view" app in 2018 known as Monterey County Connect (MC Connect). The purpose of this app, or mobile software program is to offer a one-stop solution for county residents to report things like illegally parked vehicles, graffiti on public buildings, illegal dumping, etc. It also enables the public to view/pay property tax bills, view parcel information, and search county jobs. However, when it comes to what to do in case of emergencies, there are only two sections labeled "emergency shelters" and "storm preparedness". The goal of this project is to provide developers (County IT Department) with a

blueprint/module that can someday be used to create an app module regarding what to do in case of several types of emergencies.

Project Justification

When it comes to information regarding Emergency Services in the County of Monterey, there is a lack of user-friendly information available to the public, especially to those who make up the county's Hispanic population. This will make user-friendly information available to those living in the entire county. Information stating what to do in case of several emergencies that will be available in English as well as Spanish.

The shorter-term outcome is to provide proper information regarding emergency situations to those in the county who might not have it. The long-term outcome is to gain public trust and improve the overall safety of those living in the County of Monterey.

Stakeholders: This can include all residents living in Monterey County. By improving on an app available to the public, it provides the public with more information which in turn brings public trust and improves overall safety. By having more information regarding emergency services available, citizens can better prepare before an emergency occurs, know what to do during an emergency, and also know what to do after an emergency has occurred.

Benefits: The benefits of this implementation would be the amount of user-friendly information regarding emergency situations available to the public. This could help families and individuals plan for emergency situations as well as possibly be used to teach in schools/learning centers.

Implementation Method

The project revolves around an existing Monterey County app known as 'Monterey County Connect'. It started with an extensive amount of research regarding emergency situations. This research was then divided into three main parts: what to do before, what to do

during and what to do after an emergency situation. The information provided is user friendly, available to the public and comes from an extensive number of agencies and departments who specialize in mitigating fallbacks such as FEMA, Department of Homeland Security, The Red Cross, and many others. Once the research was obtained, finalized, and approved, a sequential instruction manual was created in order to build a blueprint/module that will someday be used by the Information Technology (IT) department to upload the information into the app in a way that flows and makes sense to the user as well as the developer.

Challenges

Challenges are always a possibility no matter the type of project. One of the main challenges I faced given my remote work, is what we all experienced this past year. Impending cold temperatures combined with the Flu season meant a surge in COVID-19 cases. This affected the health of many County workers which caused the project to be prolonged as well as made it harder to build required hours. This also caused the project to shift because the original idea was to create a project that involved working directly with community members. But once again, due to the pandemic, new strategies were fabricated in order to complete a project that could be created remotely.

Project Assessment Plan

The expected outcome one hoped to achieve with this project was to increase community members' knowledge and awareness regarding emergency situations. The proposed plan for project assessment was to put together a file tree and a series of PowerPoint slides regarding emergency situations that was used to present information at the Monterey County Office of Emergency Services. A presentation outlining the new information that was implemented was

given to the MCOES staff, including the Monterey County Emergency Manager. Following the

presentation, a post-test was taken by all five participants via survey monkey. The information of

this survey was then collected and analyzed for assessment.

Short term outcome(s)	Intermediate outcome(s)	Long-term outcome(s)/Impacts
Create a platform/file tree that can be used to update a Monterey County app	Update a Monterey County application	For the new information in the app to be used as an educational tool throughout all of Monterey County, especially in schools

Project Results

The blueprint/module received overall positive feedback according to the post-survey given. It

received several compliments regarding content and clarity. The project outcome was to create a

user-friendly manual that the County IT department could use someday in order to take the

project from "paper" to app. The survey received 100% approval on its ease to understand.

Additionally, when it came to asking if the project included all or most of the emergencies that

occur in Monterey County, 20% of participants strongly agreed, 60% agreed and 20% were

neutral. Similar results were obtained when asking if the project would be a good tool to educate

the public, with 20% strongly agreeing, 60% agreeing and 20% neutral. Another important

question asked regarded app improvement. 100% of all participants agreed that this project

would improve the MC Connect app. This was right in line with the last question regarding the

projects' benefit to Monterey County and its communities. Once again, 100% of participants

agreed that this would be of great benefit to those residing in the county.

Conclusion & Recommendations

The changes we all experienced due to this pandemic were drastic and harsh. Some of us found ourselves more affected than others. Having to shift gears and come up with new ideas that could be of service to the public was not easy. However, being able to come up with an idea that could someday impact the community in a positive way has been rewarding. Since this is only a blueprint/module, it would be nice to see this 'plan' put into play. I recommend that the MCOES implements this into the MC Connect app as soon as possible, for it would be of great benefit to anyone using it.

Personal Reflection

When starting this internship, I never imagined it would be interrupted by a worldwide pandemic. The idea of shifting gears and completing the rest of the program remotely seemed impossible. However, we are resilient as humans; we do anything and everything we can in order to adapt. I am grateful for being a part of the MCOES and for being able to develop the skills needed to adapt. I am also grateful for having a mentor who guided me when circumstances were altered, and times seemed uncertain.

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Appendix A

Scope of Work and Timeline

<table>
<tr><td colspan="5">Title: Provide an educational/informative, user friendly app to community members of all ages</td></tr>
<tr><td colspan="5">Project description: This project is an educational/informative app from which anyone in the community can learn what to do in case of emergencies. This app would be updated with the purpose of providing user friendly ways, people of all ages can find information on what to do when faced with an emergency. It would help community members learn about planning, available resources and would be available in Spanish and English</td></tr>
<tr><td colspan="5">Goal: Provide user-friendly information to all residents of Monterey County</td></tr>
<tr><td colspan="5">Primary objective of the project: Increase the knowledge of Monterey County citizens, regarding emergency situations, in a user-friendly way. Especially those who do not take the time to do proper research/planning.</td></tr>
<tr><td colspan="2">Phases</td><td colspan="2">Activities/Tasks</td><td>Deliverables</td><td>Timeline/ deadlines</td></tr>
<tr><td>1</td><td>Select capstone project</td><td>1.1</td><td>Discussed capstone project ideas with mentor and agency staff</td><td>Generated a list of capstone project ideas.</td><td>Sept 2020</td></tr>
<tr><td></td><td></td><td>1.2</td><td>Discussed ideas with agency staff</td><td>Submitted a list of potential ideas to mentor for review/approval</td><td>Oct 2020</td></tr>
<tr><td>2</td><td>Plan project</td><td>2.1</td><td>Did research on information</td><td>Finalized research needed</td><td>Nov 2020</td></tr>
</table>

		2.2	Put together sequential instruction manual	Finalized sequential instruction manual	Dec 2020
3	Implement project	3.1	Showed Office of Emergency Services Staff a written/planned sample of a section of the project	Got approval for section of project	Jan 2021
		3.2	Inquired about funding for project	Obtained approval for funding once project is implemented into app	Jan/Feb 2021
		3.3	Contacted IT department	Met remotely with IT department to discuss implementation options	Feb/March 2021
4	Assess project	4.1	Worked with Mentor in Project Assessment	Assessed final stages of project	April 2021
		4.2	Talked to Office of Emergency Services Manager for final thoughts	Got final approval project implementation	April/May 2021
5	Report on project findings	5.1	Completed reporting requirements	Finalized agency and capstone reports	May 2021
		5.2	Prepared capstone presentation in selected format	Presented at Dress Rehearsal for grading	May 2021

Appendix B

MC Connect Mitigation Module

Q1 The capstone project is easy to follow/understand.

Answered: 5   Skipped: 0

ANSWER CHOICES	RESPONSES	
Strongly Agree	0.00%	0
Agree	100.00%	5
Neutral	0.00%	0
Disagree	0.00%	0
Strongly Disagree	0.00%	0
TOTAL		5

MC Connect Mitigation Module

Q2 The project includes most of the emergencies/natural disasters that occur/can occur in the Monterey County area.

Answered: 5   Skipped: 0

ANSWER CHOICES	RESPONSES	
Strongly agree	20.00%	1
Agree	60.00%	3
Neutral	20.00%	1
Disagree	0.00%	0
Strongly disagree	0.00%	0
TOTAL		5

MC Connect Mitigation Module

Q3 The project will be a useful tool to educate the public.

Answered: 5   Skipped: 0

ANSWER CHOICES	RESPONSES	
Strongly agree	20.00%	1
Agree	60.00%	3
Neutral	20.00%	1
Disagree	0.00%	0
Strongly disagree	0.00%	0
TOTAL		5

MC Connect Mitigation Module

Q4 The project blueprint/idea will improve the MC Connect app.

Answered: 5   Skipped: 0

ANSWER CHOICES	RESPONSES	
Strongly agree	0.00%	0
Agree	100.00%	5
Neutral	0.00%	0
Disagree	0.00%	0
Strongly disagree	0.00%	0
TOTAL		5

MC Connect Mitigation Module

Q5 The project will be beneficial to Monterey County and its communities.

Answered: 5   Skipped: 0

ANSWER CHOICES	RESPONSES	
Strongly agree	0.00%	0
Agree	100.00%	5
Neutral	0.00%	0
Disagree	0.00%	0
Strongly disagree	0.00%	0
TOTAL		5