Problems With Team Submissions from Flash Challenge

What communities within Region VIII with unique risk factors are at a higher risk of experiencing challenges related to COVID-19 due to cultural, linguistic, historical, political, geographical or other concerns? How do we identify these communities and ensure their unique challenges are included in forecasting and planning efforts?

Problem Indicators/Symptoms

Communities within Region VIII are made up of people that have many different characteristics and some could pose a problem if diagnosed with COVID-19. We want to be able to target these communities before a flare-up where there might not be enough help or resources to treat everyone effectively. Symptoms of this problem, if left unsolved, would be a mounting amount of contractions or possible deaths from the Coronavirus on already strained communities. Using previous case studies like the meatpacking plants across the US can help form a demographic of people who are at a higher risk for COVID-19 due to their employment situation, financial situation, geographical situation, and even ethnic identity. Therefore, the results from this Flash Challenge created three “buckets” that can be used in identifying these communities and ensure their unique challenges are included in forecasting and planning efforts. The “buckets” are people who are more prone to being more affected by Coronavirus due to their work environment, physical condition, or social condition. The first bucket includes individuals who come into contact with a lot of people by nature of their work. For example,
workers in crowded spaces such as factories or workers that come into contact with a lot of new people each day such as delivery workers. The next bucket includes individuals with physiological characteristics that place them at a higher risk once they have COVID-19. That could be diabetes, being older, or a compromised immune system, etc. The third bucket would be socially vulnerable people. This includes single parent families, where parents need to bring young children with them to grocery stores or people who require living assistance. This may even include groups that simply are not going to be careful, such as college students. These three buckets help identify the qualities that make up communities that need greater consideration and potentially resources, when planning to fight COVID-19.

**Problem Statement**

Since the Coronavirus doesn’t discriminate against who can get infected yet can impact some people more than others if they do become infected, we are a Region that must consider everyone in the planning efforts. How do we identify these unique risk factors and plan ahead so we can better address the challenges created by COVID-19 and protect high risk individuals and communities?

**Anticipated Constraints**

With a mix of identifiers throughout Region 8, it is hard to narrow down and say for sure what aspects of a person could make someone at risk, given that another characteristic could do the opposite. People are not as clear-cut as numbers so being able to gather meaningful information and incorporate everyone in the planning efforts will be a long process that may need to be done sooner than we think. Accuracy and certainty could also be a constraint, as more data means more cases, but the goal is to identify groups before there are a lot of cases.

*COVID-19 continues to put constraints on personnel, resources and implementation of FEMA programs. How should FEMA Region VIII prioritize all-hazards risks and new preparedness actions when planning future response efforts?*

**Problem Statement**
Focus on a micro-community resource planning platform (website/app) that addresses and co-ordinates the needs, tracing resources (whether self-reported or GPS-based) and community-level production of key items identified by the community. FEMA can use this data to identify excess capabilities and logistics in communities and those areas which will require additional resources.

Use this information to create a forecasting tool on the information gathered in these community groups.

This tool can allow us to forecast not only the community preparedness but also the ability to forecast ability at the macro level. This will aid in contact tracing as well.

Enabling a (citizen network for and if major networks go down or are overloaded.) This also relieves stress on the main supply chains and pulls more resources from local communities and a hub for organization. Essentially Who can do What, Where, When and Why, (inventory ‘local database’ of skills, Materials, and Tracking of supplies and (COVID) Contact tracing. Smaller communities to focus on accurate data vs mass blurred data from over stressed large communities.

Anticipated Constraints

- Knowledge of available resources for plans, data, and software
- Licenses and intellectual property rights
- Security, privacy, and trust
- Infrastructure costs
- Sustainability
- Risk of silo on a single hazard (should focus on multi-hazard)

Additional Problems

1. In each state in Region VIII, what segment of each state’s economy will experience the greatest downturn due to COVID-19? Furthermore, how do we determine the consequences of that downturn in the near-and long-term?
2. What FEMA programs will face the greatest constraints due to current COVID-19 mitigation strategies, and how should FEMA adapt to these constraints?

3. Can we develop a toolset to better understand the unique issues of each state’s supply chains, what gaps in those supply chains could be caused by continued spread of COVID-19, and anticipate emerging concerns in a resource-scarce environment?

4. Develop a matrix, algorithm or flow-chart to assist FEMA with streamlining and expediting decision-making in relation to COVID-19.