**Using Location Intelligence to Monitor IEHP Members, Providers, and Facilities During**

**Wildfires or Power Outages**

Riverside and San Bernardino counties experience several fast-moving wildfires on an annual basis. The counties are also periodically subjected to controlled power outages by Southern California Edison (SCE) in an effort to avoid new wildfires. Either of these situations have the potential to disrupt the delivery of vital health care services throughout the communities Inland Empire Health Plan (IEHP) serves. For a member who relies on Durable Medical Equipment (DME) or a provider whose practice falls within a wildfire evacuation area, the effects of these experiences can be broad and vary in magnitude. IEHP needed a way to quickly identify members and providers who may potentially need assistance during these types of events.

IEHP is concerned for all members and providers who fall within a power outage or wildfire (or other natural disaster) area and need assistance. During an event like this, focus is initially directed to members who utilize DME. Electricity is vital for this population who is especially vulnerable and

adversely affected if power is unavailable or if evacuation is required. The population of IEHP’s providers and the team members at IEHP facilities are also a priority during these events. If provider practices or IEHP facilities are affected, IEHP members everywhere could suffer if vital health services are delayed or interrupted. The ability to quickly and accurately identify areas of need is essential for IEHP to establish communication and ensure continuity of care for all members.

IEHP implemented an Esri Enterprise Geographic Information System (GIS) platform to manage and visualize the data within a GIS data repository. Data contained within the repository helps create web applications used throughout IEHP. A daily GIS Extract Transform Load (ETL) has been designed to incorporate multiple sources to simultaneously process data within an automated environment. This alleviates the burden of manual processing and reduces the resources required to keep the data updated. It also decreases errors by bypassing the need for manual updates. In addition, by adding a geographic component to the data, location allocation is possible. IEHP uses Esri’s mapping and spatial analytics to intelligently identify members who rely on DME and may be impacted during an event. By overlaying data from local utilities, emergency response authorities, and IEHP member records, a straightforward, easy-to-use web application was built and implemented that allows team members to quickly identify vulnerable members, providers, and facilities in the perimeter of a wildfire/natural disaster or in proximity of a power shutoff. The ease of use and fast performance of the application allows IEHP to identify within minutes the members, providers and facilities affected by the event. This allows for prompt deployment of interventions and outreach.

Since the introduction of the IEHP Emergency Preparedness web application, San Bernardino and Riverside counties have experienced 13 SCE Public Safety Power Shut Offs and eight wildfires. In each of these events, areas were quickly evaluated to determine if members or providers were impacted. The application allowed IEHP’s Provider, Care and Utilization Management teams to rapidly deploy an outreach or intervention, when required. Contact with members and providers was made, and essential information was distributed that helped to ensure the health and safety for all those affected. In some instances, arrangements were made to transport members to a safe, alternate facility. The application has been very effective in increasing efficiency and reducing response time during an event. It is important to note that daily reporting to state agencies is required during these events. The application was created with an automated reporting process within the daily GIS ETL. Results can be quickly exported from the application and easily formatted to the appropriate submission requirements for each agency, so daily deadlines, clear communication and reporting are achieved. Due to its ease of use and effectiveness in identifying affected members and providers, the IEHP Emergency Preparedness web application has been included as an essential tool in the IEHP Emergency Preparedness plan of action.

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