I. Formative Evaluation – Planning

When a fire death occurs in South Carolina, the responding fire department is asked to invite the CLEAR (Community Loss Education and Response) Team to learn more about the circumstances surrounding the incident. However, not every fire death is reported to the Office of State Fire Marshal, meaning not all data is collected about our fatal fire problem statewide. A lack of reporting can impact progress on reducing the number of fire fatalities in our state. By obtaining the most accurate data, we can better understand what messages need to be compiled, what messages should be promoted, and what resources are needed by local departments in addressing fire and life safety concerns.

II. Process Evaluation – Implementation

In 2012, the CLEAR Team included three researchers and a data analyst. While this allowed for some data collection, it was not complete, and it was rare for the team to go to an incident. In the beginning, most research was conducted through phone interviews, providing limited opportunities to determine what data was important to fire departments, community stakeholders, and researchers. During the years since, collected data points grew from 10 to more than 50 for a single incident, allowing for a multi-dimensional view of every fire fatality. With a more complete understanding of what happened, we then focused efforts on improving our relationships with fire departments. We accomplished this by attempting to respond to every "hot" scene of which we were made aware. To this end, we grew our team to six duty chiefs, 29 researchers, and a data analyst spread across the state. The researcher role has become a positive presence on the scene by immediately collecting data from and providing resources to the fire department and the community. The duty chief seeks to lead our agency response and foster positive working relationships. The data analyst works to examine trends, correlations, and ensure data quality in the information shared with others dependent at S.C. State Fire, in the fire service, and in the community at large. Today, researchers are prepared to respond and are dedicated to fostering positive relationships with our local fire service partners to collect quality data for prevention.

III. Impact Evaluation – Short Term Results

As a result of promoting the CLEAR Team, more fire deaths are being reported, and fewer of those incidents are being listed as "undetermined." The data also allows for identification of high-risk areas for fire deaths. By growing our team and training researchers on how to conduct research in a respectful way, fire departments are open to working with us during fatal fire incidents and in other aspects of Community Risk Reduction. Statewide education with purposeful, targeted messaging is made possible due to our research. Data has shaped our core messages, speaking to the importance of alarm types and placement, having a fire drill plan,

availability of residential fire sprinklers, and the need to take action when one sees fire and life safety risks.

IV. Outcome Evaluation – Long Term Results

One critical success resulting from the CLEAR Team's efforts is in the installation of smoke alarms during blitzes in affected communities. These residents are now protected with proper notification methods and educated on the importance of practicing escape plans in the event of a home fire. In other communities, the CLEAR Team along with the Community Risk Reduction section has provided educational guidance for safer smoking, cooking, and heating practices. There has also been intentional messaging geared toward known high-risk populations, namely senior citizens, and we utilize the partnerships established with local fire departments to address those high-risk populations. The CLEAR Team researchers are made aware of the expected messages endorsed by the Office of State Fire Marshal, and shared in the communities and fire department with which the CLEAR Team works with on a regular basis. Now that it is known why people do not survive fires, or why ignitions happen in areas with high-risk populations, the goal is to have fewer preventable fire deaths in the future.

Recommendations for others: In order to properly address the circumstances which cause fatal fires, in-depth research must be collected about every fatality. The research should be collected on-scene to obtain the best quality data and foster relationships with affected fire departments. When the research is compiled, a data analyst should look for trends and correlations to determine the most immediate needs for community risk reduction education. Analysis should be regularly updated and shared with the research team, partners, and the public.

Conclusions: Research has helped us focus our educational efforts on our highest risks, having a better understanding of why our citizens are dying in fires. The CLEAR Team turns "response" into "prevention" through data-based evidence and building of better relationships, which in turn allows us to better serve our state and fire departments their local communities.