SAS Analytics – Promoting Patient Safety

Submitted to:

The PA Senate Health & Human Services Committee
Chairwoman Brooks and Chairman Haywood

The PA Senate Aging & Youth Committee
Chairwoman Ward and Chairwoman Collett

SAS is grateful for the opportunity to submit comments for the joint hearing of the Pennsylvania Senate Health & Human Services and Aging & Youth Committees today, May 7th, 2020.

The Commonwealth is a long-standing and valued customer of SAS, which was founded in 1976 and is a global leader in analytics. Enclosed please find details regarding the work that SAS is currently engaged in to support state governments in response to COVID-19, especially with regards to promoting patient safety in nursing home facilities and other vulnerable populations.

We welcome questions, or continued conversation regarding SAS' ability to support Pennsylvania during this challenging time and offer our gratitude for the committee's consideration.

Respectfully submitted by,

Colleen Weldon
Sr. Account Executive – Pennsylvania, SAS
Colleen.Weldon@sas.com
717-439-4474

Sarah Newton
MPH, Manager, U.S. Health Policy Team, U.S. Government & Education, SAS
Sarah.Newton@sas.com
919-531-3979

A Public Health Crisis

COVID-19 is sweeping through long-term care facilities, resulting in the deaths of thousands of residents. It is no surprise that health care facilities, such as skilled nursing facilities or group homes for persons with intellectual and developmental disabilities, are vulnerable locations during a pandemic. The close quarters of congregate settings make transmission easy and social distancing difficult, and the age and underling health conditions of the residents increases the risk of life-threatening complications. There are also some preventable challenges that have caused some facilities to be ill-equipped to battle a highly contagious virus. For instance, infection prevention and control has historically been one of the most commonly cited quality deficiencies in long term care facilities.

The Data Challenge

The swift transmission of COVID-19 creates significant data challenges that prevent public health professionals, government leaders, the medical community and long-term care facility operators from having a precise sense of the virus' impact in the community, both today and in the future. In particular, the lack of accurate, comprehensive and timely case reporting data is a pervasive challenge in measuring, monitoring and responding to the crisis. Public health surveillance efforts, such as contact tracing and risk monitoring, require time-intensive, and often manual efforts to integrate data, analyze hotspots and identify linkages between patients, contacts and places. These challenges can only be overcome by a powerful analytics solution that empowers stakeholders with rapid insights in order to get ahead of and slow the spread of this fast-moving pandemic.

A Focus on Improving Outcomes

SAS has experience working with governments on strategies to ensure access to timely, reliable information that can supplement public health contact tracing efforts and pinpoint facilities at elevated risk for exposure in the future. This information can assist in targeting testing protocols and implementing effective infection control strategies within facilities. Specifically, SAS' platform provides the following capabilities:

- **Interactive visualizations.** Reports allow users to track and explore emerging indicators, rates of growth, and outcomes of the pandemic. Integrated geo-mapping capabilities support the ability to identify facilities at elevated risk of infections and complications.

- **Multiple risk scenarios to identify vulnerable populations and facilities.** Using publicly reported data, identify facilities with a history of infection control deficiencies, identify who is most at risk, where they are located, and what complicating factors (e.g. comorbidities) may confound an effective prevention strategy.
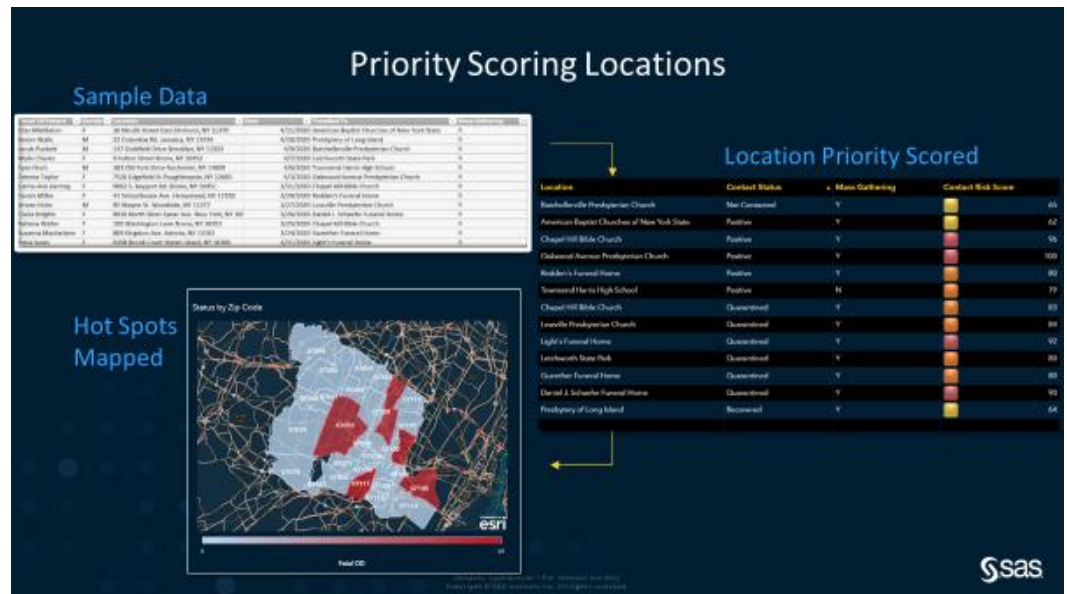

Figure 1. Identify emerging hotspots for prioritization of public health actions.

- **Analytics to drive action.** Identify data trends and anomalies to monitor patient safety and assist state surveyors with quality assurance activities by gaining longitudinal view of SNFs.

- **Integrated text analytics.** Out-of-the-box tools to analyze text and other unstructured data (e.g. CMS-2567 Statement of Deficiencies reports) to enhance the identification of at-risk facilities. SAS analytics can help agencies uncover insights about who is impacted, where the virus is spreading, who should be tested, and which licensed long-term care facilities are at greatest risk.