

# SAS and PERSOWN empower decisions that save lives

Teaming up to tackle the global burden of sepsis with predictive analytics



## Getting ahead of one of the world's deadliest medical conditions

Sepsis kills 11 million people each year, more than all forms of cancer combined. It is a medical emergency caused by the body's toxic response to an infection. Early detection is critical to prevent the worst health outcomes.

For healthcare organizations, it is exceedingly difficult to predict which patients are most at risk from sepsis. That's because testing protocols and diagnostic products vary widely in their effectiveness – and hospitals are rarely able to remotely monitor patients post-discharge for early signs of latent infections, risking severe medical complications and costly readmissions.

### Impact of sepsis



11 million  
annual deaths  
globally



\$62 billion  
estimated annual  
cost of care in U.S.

While an abundance of sepsis data exist that could inform detection algorithms, these data sets are highly fragmented. This, along with changing IT systems and a wide variety of non-normalized variables and analytical models, has failed to provide a common framework to determine which diagnostics are working best and how to accurately predict which patients are most at risk.

## A proactive solution for early detection

To bring order to the chaos of sepsis data, PERSOWN, a SAS Service Provider, is developing a near-real-time information exchange infrastructure that empowers clinicians, healthcare organizations, governments and researchers to make informed decisions for better sepsis management.

The Sepsis Monitoring and Alerting System for Hospitals and Home (SMASH-H) uses PERSOWN's partner-embracing diagnostic and monitoring device tools to bring three entirely new dimensions to predictive analytics for sepsis. PERSOWN has integrated tools running on Microsoft Azure to retrieve or receive rapid diagnostics and patient data every 10 minutes or less from hospital IT systems and Remote Patient Monitoring systems worldwide for predictive analytic processing with integrated economic calculations. But to refine its algorithms and generate alerts to provide the best possible timely information to healthcare providers and financial officers, PERSOWN needed a trusted foundation of predictive analytical models.

That's why PERSOWN turned to SAS. Our AI-driven big data analytics platform added the predictive capabilities that helped make the PERSOWN solution more robust, and our data visualizations and data management software helped make its results for healthcare organizations more actionable.





# How SAS analytics make a difference

As a SAS Service Provider, PERSOWN brings its own healthcare expertise and intellectual property. SAS contributes powerful analytics and flexible delivery models so PERSOWN's integration partners get accelerated cloud-based analytics capabilities. Together, we're helping to solve the sepsis crisis.



**1.** Gathering billions of integrated data points across various disease states and multiple monitoring devices through PERSOWN ecosystem

**2.** Using powerful SAS artificial intelligence, visual analytics and data management software to uncover infection trends and visualize disease patterns to better monitor and predict onset

**3.** Delivering the information that healthcare providers need to make more informed decisions

## Improving sepsis care across the continuum

The smarter predictive tools of SMASH-H will benefit:

### Clinicians

Access near-real-time feedback through predictive analytics allowing for faster, more informed personalized treatment

### Hospitals and researchers

Access data and refined algorithms to identify the most accurate rapid point-of-care diagnostic tools and treatment costs

### Public and private health organizations

Track patient conditions under an open analytical cloud framework to cost-effectively improve patient outcomes

## Why the PERSOWN and SAS partnership works

Support from SAS helps drive PERSOWN's success through:

- **Close collaboration.** The SAS team meets regularly with PERSOWN's developers and data scientists to help them extend their intellectual property.
- **Industry connections.** SAS's customer relationships and reputation as a global technology leader are helping PERSOWN to open doors into major hospitals and IT vendors to healthcare systems.
- **Trusted relationship.** PERSOWN may be an emerging company, but SAS makes it easy to work with a larger enterprise by providing access to our executives and technologies.

*"The SAS platform is clearly the best in the world for IT integration companies like PERSOWN."*

- Eric Doherty, President, PERSOWN



**Interested in becoming a SAS Service Provider?**

To learn more, visit [sas.com/partners](https://sas.com/partners).



At SAS, we love bold questions. And when we combine our analytics leadership with the innovative technology and expertise of our partners, we help our customers turn data into answers. That's the kind of curiosity that moves the world forward. That's the **Power of the Partner**.