



15530-C Rockfield Blvd.  
Irvine, CA 92618  
Ph: +1 949.540.0645  
[www.cognitive-systems.com](http://www.cognitive-systems.com)

**For Immediate Release**

**Hand Hygiene Measurement and Improvement Product Achieves New Milestone**  
***Cognitive Delivers World's Largest Wireless Sensor Based System***  
***for Measuring Hand Hygiene Performance***

**Irvine, CA, October 13, 2009** - Cognitive Systems, Inc. announced today that its wireless sensor product used for Hand Hygiene measurement and improvement called Intelligent Hygiene™, was utilized in a large scale research effort conducted jointly by The London School of Hygiene and Tropical Medicine, and Unilever. The research objective was to test behavioral interventions and determine their effectiveness at increasing hand-washing rates. The peer reviewed research paper entitled "Experimental Pretesting of Hand-Washing Interventions in a Natural Setting" was recently published in the October, 2009 issue of The American Journal of Public Health, and may be viewed at: <http://www.ajph.org/cgi/reprint/99/S2/S405>.

Within a highly trafficked motorway service station near London, England, service station restrooms provided a natural setting to measure the typical hand-washing behavior of a large volume of people over several months. The Intelligent Hygiene system purchased for the research was comprised of 50 soap dispensers outfitted with Cognitive's patented wireless sensor solution for measuring and improving Hand Hygiene rates, and wireless sensors used to count the number of persons entering restrooms. Between July and September of 2008, the Intelligent Hygiene system automatically detected and data-based nearly 200,000 hand-washing events. This is believed to have been the world's largest deployment of a fully automated, wireless sensor based system used for measuring Hand Hygiene performance.

"This deployment achieved a new milestone for Intelligent Hygiene" said Hank Ortiz, President and Chief Executive Officer of Cognitive Systems. "The low cost, low power wireless sensors, and web-based system deployment, management, and reporting software represent a wireless data acquisition platform developed by Cognitive specifically for Hand Hygiene performance measurement and improvement for the Healthcare, Food Services, and Hospitality Industries. Although we have leveraged this technology platform by developing wireless sensor products for a variety of applications ranging from Vehicle Telemetry to Water Conservation, this was the

first opportunity that we had had to deliver a Hand Hygiene performance measurement system with more than 50 wireless sensor nodes in such a harsh, high use environment. Our wireless sensor solutions are based on simple premises: 1) If it's to be taken seriously, measure it; and 2) If you want something to improve, track measurable performance against quantitative goals. Intelligent Hygiene provides a low cost and scalable method for the accurate and unobtrusive measurement of Hand Hygiene performance, as well as a web-based interface providing easy to interpret real-time Hand Hygiene performance against a goal. We believe this deployment of Intelligent Hygiene is the largest deployment of wireless sensor technology specifically for the measurement of Hand Hygiene performance in the world, and we are proud that Intelligent Hygiene was selected as the measurement tool of choice and has achieved this milestone.”

### **Wireless Data Acquisition and Web-Based Reporting**

Because Intelligent Hygiene provides a totally wireless solution, it is easily deployable in environments where wired solutions may be too costly or too difficult to deploy. A robust wireless network architecture allows Hand Hygiene performance data to be automatically acquired, concentrated and processed in real-time, 24 X 7, and without the added cost of human observation, human data collection or handheld data collection devices. Intelligent Hygiene processes hand wash event data and provides easy to interpret Hand Hygiene performance trends reliably and securely over any TCP/IP network including a dedicated, private network, a corporate intranet, or the Internet. Intelligent Hygiene's graphical display of Hand Hygiene performance trends is used to provide continuous real-time feedback to co-worker teams in order to achieve and sustain acceptable Hand Hygiene rates.

### **An Unobtrusive, Team Based Approach**

Intelligent Hygiene is devoid of RFID badges, tags and other such devices used to monitor and single out individuals. The absence of badges eliminates the expense and complexity of badge administration, badge battery charging, replacement badges, etc., as well as the feelings of invasion of privacy among workers required to wear or carry such devices. Because Intelligent Hygiene is badgeless, it is by nature a simpler, lower cost approach whose implementation psychology differs dramatically. Intelligent Hygiene eliminates the stigma associated with identifying and singling out individuals and instead focuses on measurement, real-time feedback, and sustained Hand Hygiene performance improvement of entire teams of co-workers. The Intelligent Hygiene philosophy holds that working in teams is a more effective method of execution toward a common purpose and for achieving group or departmental performance goals via mutual accountability for the team's success.

### **The Importance of Measuring and Sustaining Acceptable Hand Washing Rates**

It is estimated that in the US alone, two million people become ill annually as a result of hospital acquired infections. This causes or contributes to the death of nearly 90,000 hospital patients per year and over \$4.5 billion in unnecessary medical expenses. Over and over, studies have shown that hand washing compliance rates average only 40% despite the fact that The Centers for Disease Control (CDC) state that "Improved adherence to hand hygiene practices has been shown to terminate outbreaks in healthcare facilities, to reduce transmission of antimicrobial resistant organisms (i.e. MRSA) and reduce overall infection rates."

The Department of Health and Human Services has issued a draft Action Plan to Prevent Healthcare Associated Infections which states that "Mandatory public reporting of hospital acquired infection rates enhances accountability in healthcare by increasing the transparency of quality of care data. Public reporting is designed to create both "indirect" financial and non-financial incentives to improve quality of care. Indirect financial incentives result when public reporting drives patients' choices and, therefore, market share. Non-financial incentives include publicizing performance, reputations, competition, motivation, accountability, and public, recognition." The draft Action Plan may be found at:

<http://www.hhs.gov/ophs/initiatives/hai/draft-hai-plan-01062009.pdf>.

In an attempt to enhance accountability in healthcare, 26 States now require that hospitals make their hospital acquired infection rates available to consumers. A State by State summary of the status of such legislation for the entire US may be viewed at:

<http://www.statehealthfacts.org/comparetable.jsp?cat=8&ind=407>.

### **About Cognitive Systems**

Cognitive Systems, Inc. is a privately held company located in Irvine, CA and provides wireless data acquisition solutions for a variety of applications. For more information regarding Cognitive Systems and Intelligent Hygiene, please visit [www.cognitive-systems.com](http://www.cognitive-systems.com).

# # # #

### **CONTACT:**

Judy Van Leyen  
[judy.vanleyen@cognitive-systems.com](mailto:judy.vanleyen@cognitive-systems.com)  
Cognitive Systems, Inc.  
+1 949 540 0645