Missouri Department of Health and Senior Services
Public Health Event Detection and Assessment Program
ESSENCE for Hospitals

Q: What is ESSENCE?

A: **E**lectronic **S**urveillance **S**ystem for the **E**arly **N**otification of **C**ommunity-based **E**pidemics (ESSENCE) software acquires and evaluates several data sources as an early indicator of infectious diseases or unusual clusters. Currently, ESSENCE's main source of data is daily emergency department (ED) visits grouped into 'syndrome' categories base on chief complaints and diagnostic ICD-9-CM codes. This information is used to determine via statistical analysis if the number of visits is greater than expected for that facility or geographic area when compare to previously established data.

Q: How often does DHSS receive electronic data from reporting sites?

A: DHSS receives real-time data feeds from hospitals from most facilities. Records are loaded into ESSENCE roughly the same time when they are processed by the facility. ESSENCE analyzes and displays the findings for use at local, state and hospital level.

Q: What syndrome groups does ESSENCE evaluate?

A: The eight syndrome groups are: Botulism-like, Fever, Gastrointestinal, Hemorrhagic, Neurological, Rash, Respiratory, and Shock/Coma.

Q: How is ESSENCE used for early event detection?

A: ESSENCE displays the number of ED visits in each syndrome category in any given day. The system will "flag" a syndrome group whose number of visits are significantly higher than the expected number when compare to historical data. The overall goal is to detect anomalies as early as possible in order to contain and/or prevent further effects of adverse health events, such as naturally occurring outbreaks or acts of bioterrorism.

Q: How is ESSENCE used for situational awareness?

A: ESSENCE is use to measure the severity of an adverse event on public's health by monitoring number of counts over time, varying demographics and geographical regions. Examples of adverse events include heat-related illness, slips and falls during winter, and tracking progress of known outbreaks.

Q: How often can I expect to hear from DHSS regarding a suspicious cluster?

A: Individuals using ESSENCE for public health surveillance make every attempt to resolve anomalies using state and local resources. All hospital inquiries will be coordinated through the local public health agency that oversees each facility. To facilitate these communications, we recommend that a representative from each ESSENCE participating hospital should have access to ESSENCE.

Q: Can I view information for other hospitals?

A: You can only view data from your hospital. However, if you are part of a health care system, you will be able to view information for all hospitals within your network.

Q: Which hospitals participate in ESSENCE?

A: A map of ESSENCE participating hospitals can be found at http://www.dhss.mo.gov/ESSENCE/Missouri_ESSENCE_Map.pdf. This includes facilities in both Missouri and Illinois.

Q: Can I view statewide or local trends that might affect my hospital?

A: Yes. ESSENCE is designed for individual user or hospital to view their own facility's data **and** regional and/or state wide data as well. This additional information allows you to know of an occurrence and location of such an alert.

Q: How does my hospital access ESSENCE?

A: ESSENCE is entirely web-based, no software needs to be installed or a site license to be obtained. Relevant hospital staff should use the DHSS Automated Security Access Processing (ASAP) process to register for access. Instructions are located at: http://www.dhss.mo.gov/ESSENCE/ESSENCEhospitals.html. After completing the ASAP Network Request Form Online, authorized user(s) will be granted a username and password to access ESSENCE.

Q: How will using ESSENCE benefit health care facilities?

A: ESSENCE may provide an alternative to your existing infection control or emergency department visit monitoring procedures. As mentioned above, ESSENCE offers a general picture of statewide and regional trends. You may find this useful to compare and contrast with your facility's data.

Q: Who is responsible for daily ESSENCE use?

A: DHSS staff is responsible for daily ESSENCE viewing and communications. Your local public health agency most likely has access to ESSENCE as well but is not mandated to check it every day. Nonetheless, hospitals are provided with ESSENCE to enhance your own disease tracking effort, and if needed in the near future, to facilitate quicker and more accurate communication between public health professionals and hospital staff.

Q: What kind of data security issues are involved with ESSENCE?

A: Personal identifiers such as name, address, date of birth and social security number are not included in ESSENCE. Security is ensured during e-mailing, storage and use of ESSENCE data to protect the patient, the physician, and the facility's identity. DHSS aims to maintain a secure environment for the data and strongly urges everyone to keep usernames and passwords confidential and not share them.

Q: Does my facility need to sign a business associates' agreement with DHSS to address HIPAA issues?

A: No. Data are transmitted for public health purposes and are covered under the reporting rule 19 CSR 10-33.040. Nonetheless, ESSENCE data should be handled in the same manner as any other confidential information typically used in a healthcare setting.

Q: Whom do I contact if I have questions?

A: The Missouri ESSENCE Project can be contacted at **573-522-8329** or **ESSENCE@dhss.mo.gov.**

Q: Will DHSS train new ESSENCE users?

A: Yes, DHSS will provide self-study materials for new users, followed by on-site, in-person sessions or Adobe Acrobat web-based seminars. Additional policies and communication protocols can be found at the ESSENCE homepage.

Division of Community and Public Health
Bureau of Communicable Disease Control & Prevention
Missouri Department of Health and Senior Services
AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION
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Services provided on a nondiscriminatory basis.

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