

What do you want to know about ESSENCE that would help to inform our work?
-Ability for OHA to gather and release it is currently connected to the COVID pandemic.

ESSENCE predates covid and will continue long into the future. It is a public health surveillance tool designed to track multiple types of illnesses, injuries, and environmental health related outcomes to name a few. Other states have versions of ESSENCE and it exists on a national level as well.

How can we elevate the importance of it's use and advocate that it continues post-pandemic?

ESSENCE began as a federally funded project, and will hopefully continue for many years.

The timeliness of data released is what is tied to the Pandemic. This timeliness in data being released was not there pre-pandemic.

ESSENCE data is primarily comprised of medical records for emergency department and urgent care center visits (not hospital visits or stays) and as such ESSENCE data in it's raw form is never released to the public as medical records are highly protected.

ESSENCE also includes air quality data and poison center call data as well as reportable disease tracking data.

Public facing ESSENCE reports that contain charts and summaries of predefined syndromes such as suicidal ideation, or opioid overdoses have been through a rigorous approval process, and will continue to be available but may evolve one day to be something more interactive such as a dashboard on OHA's website.

-How is it collected?

All non federal emergency departments in the state of Oregon, and many urgent care centers voluntarily transmit their medical records in a format known as HL-7

What are the different pieces that make up the definition of the algorithm?

I've summarized this from the ESSENCE user's module:

1. All of the algorithms are one-sided tests that monitor for unusually high counts.
2. In addition to methods based on single time series, some ESSENCE implementations also include space-time cluster detection based on scan statistics.

1. Algorithm: Linear Regression

Categorization: Adaptive Multiple Regression Model

Purposes: This model is an adaptive regression model applied to remove the systematic behavior often seen in time series of daily, syndromic, clinical visit counts and in other surveillance data. The reason for removing these common effects is to avoid bias in identifying unusual behavior. For example, there is a customary jump in visits on Mondays because many clinics resume normal hours, and this expected jump should not automatically increase the possibility of an alarm. Similarly, alarms should be possible on weekends even though visit counts drop off from weekday levels.

Benefits: The main benefit is avoiding alerting bias resulting from expected data trends..

2. Algorithm: EWMA

Categorization: Adaptive Control Chart

Purposes: This algorithm is appropriate for daily counts that do not have the characteristic features modeled in the regression algorithm. It is more applicable for Emergency Department data from certain hospital groups and for time series with small counts (daily average below 10) because of the limited case definition or chosen geographic region.

This algorithm is designed for any series that does not fit the characteristic trends, so safeguards are included for rapid adjustment to and recovery from data dropouts and catch-ups and for avoiding excessive alerts when counts are sparse.

3. Algorithm: Poisson/Regression/EWMA (default)

Categorization: Automated switch between data model and control chart

Purpose: Many researchers and developers have applied complex statistical models to

surveillance data for prediction and detection. However, the predictive capability of a model varies according to the specific data stream and how it is filtered and aggregated. This capability may also be affected by data behavior changes that result from seasonal variations, population shifts, and changes in the informatics. To account for such day-to-day changes, ESSENCE automatically monitors its predictive capability of its regression model each day. When this test fails, indicating that the model is not helpful for explaining the data, the system switches to the EWMA adaptation described above. The result is that the regression model is usually applied for the common respiratory and gastrointestinal syndrome classifications applied to county-level data, but EWMA is more commonly applied to rare syndrome data.

For situations where less than a week of recent baseline data exists, a simple Poisson detector is applied. Such situations include new start-ups and more common restarts after long (several-week) intervals of missing data.

Benefits: This algorithm is the default because it is designed to avoid mismatching the method to the data. The regression model accounts for the expected data trends when they are seen in the baseline. When they are absent because of the case definition used to filter the data, because of the size of the monitored region, or because of data problems, alerting is based on the EWMA algorithm.

. Algorithm: GStat

Categorization: Temporal Scan Statistic

Purpose: GStat was added to ESSENCE for applications that require sensitivity to brief signals with relatively few cases in sparse data series, but at a manageable false alarm rate. For example, the problem of interest may be to monitor daily counts of visits with one of the rarer syndromes such as rash or to monitor cases from a small geographic region, both of which can produce time series with many zeros. For prompt sensitivity to the beginning of an outbreak, a simple case threshold (alert whenever there are more than 3 cases in a day) may produce excessive false alarms.

-Quality of data is of concern.

The three areas that define public health data quality are completeness, timeliness and validity. The quality of ESSENCE data in these terms is very good overall.

How many hospitals are participating / providing data?

ESSENCE data isn't derived from hospitals but rather emergency departments which may or may not be free standing, and urgent care centers. All non-federal emergency departments in the state of Oregon voluntarily participate. Urgent

care centers open and close over time. Currently we have 101 separate facilities participating.

Was / is this system going to be erased and a new one taking it's place?
No plans for it to close.

-Can we have a presentation from OHA on ESSENCE?

I've enclosed a history of ESSENCE presentation for you to review.

-Is it only during emergencies that we can get immediate access to data?

Perhaps this assumption grew from the fact that it is emergency department data? OHA have been receiving data daily for several years.

ESSENCE stands for Electronic Surveillance System for the Early Notification of Community-Based Epidemics...so this is meant to be emergency related data. One idea is to label suicide a public health epidemic so that this data can still be released regularly as it is now.

Epidemics tend to have a negative connotation but they can be healthy and positive. For example more mothers are breastfeeding their babies than in previous decades because we've learned that is a protective factor against illness in later life. Of course we don't have a breast feeding epidemic, but I mention this because some words like epidemic are triggering or can alienate groups. I'm thinking specifically of the "obesity epidemic" which was not the finest hour in public health history. I would caution this group about labeling something a suicide epidemic as it might create the wrong public perception, especially in light of the prevention efforts lead by groups like yours which have helped to reduce potential suicides. This is my personal opinion though and you are free to disregard it.

-How is this different than what comes out from hospitals / Eds during the annual report? Quality of data and number of hospitals that participate.

I believe some these questions have been answered in some of the above paragraphs. I'm not sure what the annual report referred to is so I can't be sure how to define the differences.

The background of the slide is a light beige color with a faint world map. At the top, there are several lines of binary code (0s and 1s) in a light grey color. On the left side, there is a vertical blue bar with a white technical drawing or circuit board pattern.

History of ESSENCE



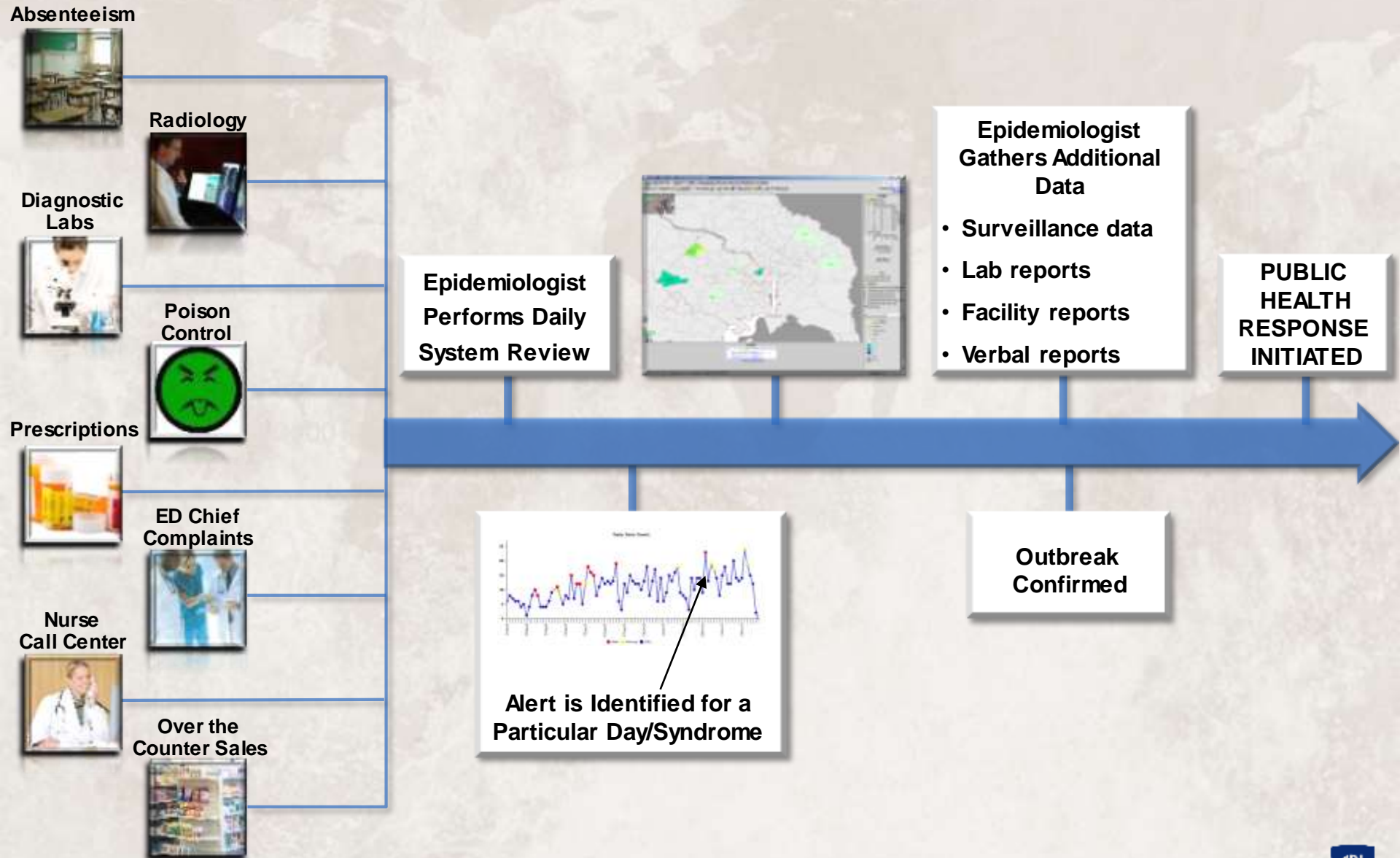
JOHNS HOPKINS
APPLIED PHYSICS LABORATORY

What is ESSENCE ?

Electronic
Surveillance
System for the
Early
Notification of
Community-based
Epidemics

Web-based disease surveillance information system developed to alert Health Authorities of infectious disease outbreaks, including possible bioterrorism attacks

Electronic Disease Surveillance

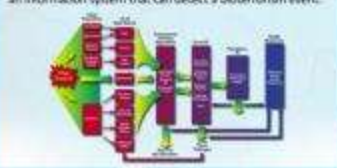




The Evolution of ESSENCE

Wayne Loschen, Sheryl Happel Lewis, Richard Wojcik, Howard Burkorn, Joseph Lombardo
The Johns Hopkins University Applied Physics Laboratory (JHU/APL)

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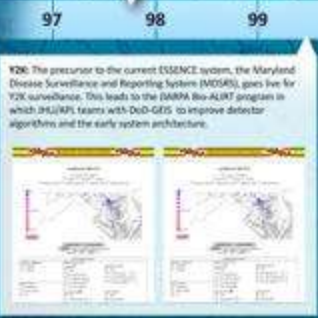


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Expansion: The DoD JSPP and the DHS BioWatch proliferate ESSENCE instances across the country. This influx of new users and perspectives leads to a new focus on enhancing visualization flexibility and exportability. Users explain that the need to share results with peers to convince them of the necessity for action is just as important as finding an outbreak in the first place. Features are added to support better labeling and download capabilities.



Open Source: Working with DoD-GEIS, the ESSENCE team identifies the need to transition the technology and lessons learned from ESSENCE to open-source versions that are easy to operate, free, and that can be deployed around the world. The SAGES toolkit is developed, including OpenESSENCE and ESSENCE Desktop Edition.



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The Cloud version of ESSENCE





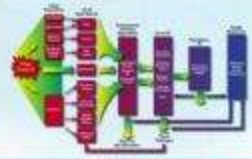
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NCE

ick, Howard Burkorn, Joseph Lombardo
Physics Laboratory (JHU/APL)

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The screenshots show the 'Maryland Bio-Surveillance Network' interface. The left panel shows data for 'conditions for 1998-12-23:' and the right panel shows data for 'conditions for 1999-12-23:'. Both panels feature a map of Maryland with a legend on the left and a data table at the bottom. The data tables include columns for 'Symptom Categories' and 'Health Care Providers'.

The Centers for Disease Control and Prevention announced that the National Syndromic Surveillance Program (NSSP) is transitioning to new syndromic surveillance software—the National Syndromic Surveillance System for the Early Notification of Community-Based Epidemics (NSSE)—which will be hosted on the Cloud-based Business Platform.



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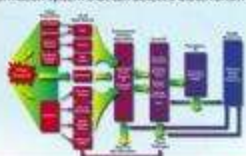
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The Evolution

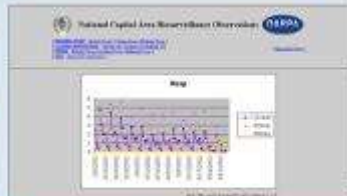
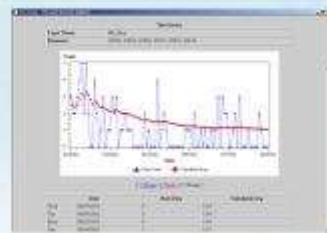
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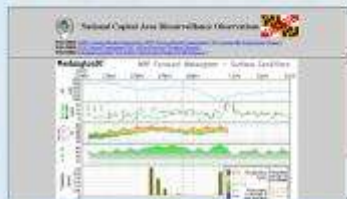
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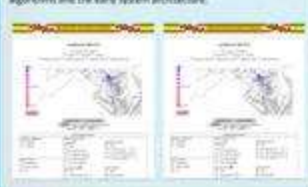
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State	Case	Day Case	Case	Day Case	Case	Day Case
VA	10/24/01	10/25/01	10/26/01	10/27/01	10/28/01	10/29/01
DC	10/24/01	10/25/01	10/26/01	10/27/01	10/28/01	10/29/01
MD	10/24/01	10/25/01	10/26/01	10/27/01	10/28/01	10/29/01
PA	10/24/01	10/25/01	10/26/01	10/27/01	10/28/01	10/29/01
DE	10/24/01	10/25/01	10/26/01	10/27/01	10/28/01	10/29/01
NC	10/24/01	10/25/01	10/26/01	10/27/01	10/28/01	10/29/01
SC	10/24/01	10/25/01	10/26/01	10/27/01	10/28/01	10/29/01
GA	10/24/01	10/25/01	10/26/01	10/27/01	10/28/01	10/29/01
FL	10/24/01	10/25/01	10/26/01	10/27/01	10/28/01	10/29/01
AL	10/24/01	10/25/01	10/26/01	10/27/01	10/28/01	10/29/01
MS	10/24/01	10/25/01	10/26/01	10/27/01	10/28/01	10/29/01
LA	10/24/01	10/25/01	10/26/01	10/27/01	10/28/01	10/29/01
TX	10/24/01	10/25/01	10/26/01	10/27/01	10/28/01	10/29/01
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MO	10/24/01	10/25/01	10/26/01	10/27/01	10/28/01	10/29/01
IL	10/24/01	10/25/01	10/26/01	10/27/01	10/28/01	10/29/01
IN	10/24/01	10/25/01	10/26/01	10/27/01	10/28/01	10/29/01
OH	10/24/01	10/25/01	10/26/01	10/27/01	10/28/01	10/29/01
MI	10/24/01	10/25/01	10/26/01	10/27/01	10/28/01	10/29/01
WI	10/24/01	10/25/01	10/26/01	10/27/01	10/28/01	10/29/01
IA	10/24/01	10/25/01	10/26/01	10/27/01	10/28/01	10/29/01
NE	10/24/01	10/25/01	10/26/01	10/27/01	10/28/01	10/29/01
KS	10/24/01	10/25/01	10/26/01	10/27/01	10/28/01	10/29/01
WY	10/24/01	10/25/01	10/26/01	10/27/01	10/28/01	10/29/01
MT	10/24/01	10/25/01	10/26/01	10/27/01	10/28/01	10/29/01
ND	10/24/01	10/25/01	10/26/01	10/27/01	10/28/01	10/29/01
SD	10/24/01	10/25/01	10/26/01	10/27/01	10/28/01	10/29/01
CO	10/24/01	10/25/01	10/26/01	10/27/01	10/28/01	10/29/01
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LA	10/24/01	10/25/01	10/26/01	10/27/01	10/28/01	10/29/01
TX	10/24/01	10/25/01	10/26/01	10/27/01	10/28/01	10/29/01
OK	10/24/01	10/25/01	10/26/01	10/27/01	10/28/01	10/29/01
MO	10/24/01	10/25/01	10/26/01	10/27/01	10/28/01	10/29/01
IL	10/24/01	10/25/01	10/26/01	10/27/01	10/28/01	10/29/01
IN	10/24/01	10/25/01	10/26/01	10/27/01	10/28/01	10/29/01
OH	10/24/01	10/25/01	10/26/01	10/27/01	10/28/01	10/29/01
MI	10/24/01	10/25/01	10/26/01	10/27/01	10/28/01	10/29/01
WI	10/24/01	10/25/01	10/26/01	10/27/01	10/28/01	10/29/01
IA	10/24/01	10/25/01	10/26/01	10/27/01	10/28/01	10/29/01
NE	10/24/01	10/25/01	10/26/01	10/27/01	10/28/01	10/29/01
KS	10/24/01	10/25/01	10/26/01	10/27/01	10/28/01	10/29/01
WY	10/24/01	10/25/01	10/26/01	10/27/01	10/28/01	10/29/01
MT	10/24/01	10/25/01	10/26/01	10/27/01	10/28/01	10/29/01
ND	10/24/01	10/25/01	10/26/01	10/27/01	10/28/01	10/29/01
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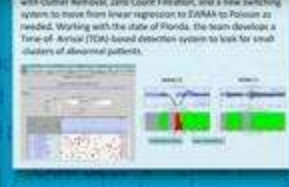
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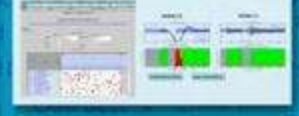
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Howard Burkorn, Joseph Lombardo
Epidemiology Laboratory (JHU/APL)

Early research in information management leads to a request by Dr. Georges Benjamin and collaboration with the Maryland Dept. of Health and Mental Hygiene to develop an information system that can detect a bioterrorism event.



September 13th, 2003: The enhanced ESSENCE 1.0 goes from being a research project to a full operational system in Maryland. ESSENCE has been converted from a static web framework to a fully dynamic version with a database backend.

SARS: The need to begin looking for case definition instead of a gene supported by the decision to allow complaint queries into the system awareness to the power of these information systems—not just data is also the last time "syndromic" universally. After this date, "Dis" becomes the descriptor.

Expansion: The DoD 33RF BioWatch proliferate ESSENCE across the country. This and perspectives leads to enhancing visualization for exportability. Users begin to share results with peers as finding an outbreak in Features are added to upload and download capabilities.



A System for Disease Control and Prevention announced that a National Syndromic Surveillance Program (NSSP) is transitioning to new syndromic surveillance software—the National Syndromic Surveillance System for the Early Notification of Community-Based Epidemics (NSSE) which will be hosted on the Cloud-based Business Platform.



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Iraq War: In response to the need to monitor deployed troops, ESSENCE 1.0 is developed and deployed in March 2003. In 3 weeks, the ESSENCE team builds an entirely new version of ESSENCE with new data sources, customizable groupings, and the first incorporation of an outside detector. This substantiates the value of adding an Application Program Interface (API) to the detection system so new algorithms can be plugged into ESSENCE.



ANCR: In 2004, Maryland, Virginia, and the District of Columbia agree to share data across state lines, and the "Aggregate National Capital Region" version of ESSENCE is created. This sparks the need for the "Enhanced Surveillance Operating Group (ESOG)," a group of users who help guide future development efforts in ESSENCE. This close tie with users becomes a foundation for the ESSENCE system.



Real Life Algorithms: "Real happens," especially to networks and data providers' ability to send data consistently. The ESSENCE team recognizes that detection algorithms need to adapt to the real world situation of missing data, outliers, and several erratic behaviors. In response to this, ESSENCE algorithms are enhanced with Outlier Removal, Zero Count Filter, and a new switching system to move from linear regression to ZANNA to Poisson as needed. Working with the state of Florida, the team develops a Time of Arrival (TOA)-based detection system to look for small clusters of abnormal patients.



Full EMR: Working with the Veterans Affairs and Dept. of Defense, the ESSENCE team investigates the benefits of and issues with including elements of an EMR beyond the demographics and chief complaints. New algorithms that detect the severity of patients to better characterize an outbreak are built. Working with multi-terabyte database sizes prepares the ESSENCE system for dealing with large datasets in every jurisdiction.

After the Boston bombings, ESSENCE was adapted to look for non-infectious health events including: Anxiety, Depression, Suicidal Tendencies, and Injuring Loss. The system helped track the health of the Boston communities as they dealt with the aftermath of the attacks.



The Cloud version of ESSENCE



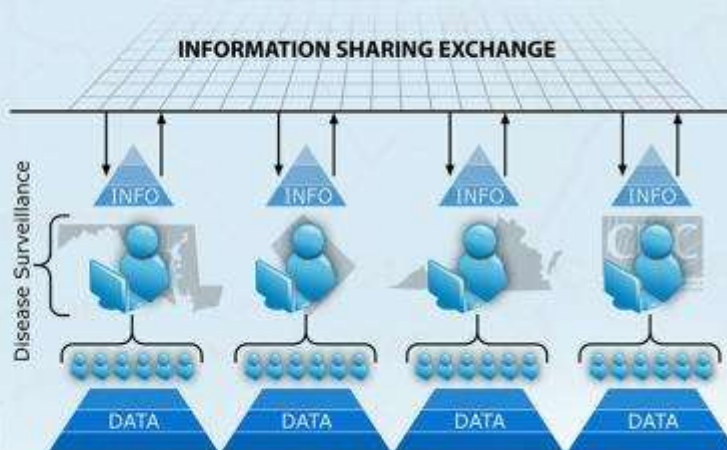


The Evolution of ESSENCE

Wayne Loschen, Sheryl Happel Lewis, Richard Wojcik, Howard Burkorn, Joseph Lombardo
The Johns Hopkins University Applied Physics Laboratory (JHU/APL)

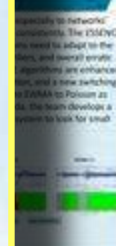
SARS: The need to begin looking for a very specific case definition instead of a general syndrome is

2007 Super Bowl & 2009 Presidential Inauguration:
These high-profile events provide the opportunity to test information-sharing strategies and deploy the InfoShare tool to allow NCR ESSENCE users the ability to share information with Federal partners during the event.



Open Source: Working with DoD-GEIS, the ESSENCE team identifies the need to transition the technology and lessons learned from ESSENCE to open-source versions that are easy to operate, free, and that can be deployed around the world. The SAGES toolkit is developed, including OpenESSENCE and ESSENCE Desktop Edition.

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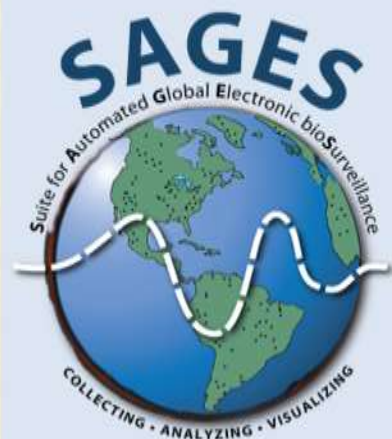
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Suite for Automated Global Electronic bioSurveillance

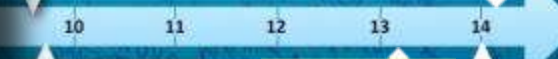
Key Attributes of SAGES

- Open Source
- Flexible, Modular, Scalable
- Data Type Agnostic
- Sustainable
- Multi-Use
- Global Information Sharing



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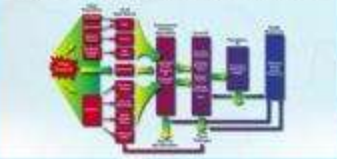


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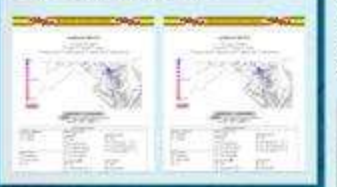
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The Cloud version of ESSENCE





JOHNS HOPKINS
APPLIED PHYSICS LABORATORY

Access to Data from
Oregon ESSENCE

PROPOSAL GUIDELINES



Oregon Health Authority
Public Health Division
Preparedness Surveillance and Epidemiology Team
September 2016

Oregon ESSENCE

Oregon ESSENCE is the Oregon Public Health Division's statewide syndromic surveillance project. The project collects visit data from emergency departments across the state. While we are eager to support public health, it is our responsibility to ensure that Oregon ESSENCE data are used appropriately. User interface access to Oregon ESSENCE may be granted to authorized users in the Oregon Public Health Division, Oregon local health departments, Tribal health agencies, academic institutions in Oregon and users in hospital facilities throughout the state.

The Oregon ESSENCE project has developed guidelines for people who wish to *publish* or *report* ESSENCE data. Individuals who intend to conduct public health evaluation or surveillance projects using ED data must submit project proposals to a review committee. Proposals of users interested in using poison center or vital statistics data will first be reviewed by those programs before review by the Oregon ESSENCE project. All such proposals must meet professional standards for public health evaluation and have merit and relevance for the Oregon ESSENCE Program.

Any such proposed project activity must fall within at least one of the categories of permitted activities related to Emergency Department data:

- a. To facilitate the interchange of information that can be used to coordinate responses and monitor events routinely and during a potential health event;
- b. For early detection and characterization of events (or health-related threats) by building on state and local health departments systems and programs;
- c. To provide health-related information for: (i) public health situation awareness, (ii) routine public health practice, or (iii) public health evaluation;
- d. To improve the ability to detect emergency health threats by supporting the enhancement of systems to signal alerts for potential problems in collaboration with federal, state and local health jurisdictions and other potential stakeholders.

Data access to Oregon ESSENCE Program will be limited to the scope (timeframe, region and variables) specified in the project proposal.

What is the Proposal Review Committee?

The Proposal Review Committee was established in 2013 to screen all requests for access to Oregon ESSENCE data for publication or reporting. Committee membership includes representatives from the Oregon ESSENCE Project and subject matter experts, as needed.

Who should submit a request?

The following categories of users must submit a proposal request to Oregon ESSENCE:

- Any user who wishes to report, present or publish ESSENCE data
- Any user who wishes to re-release or share ESSENCE data outside of a Public Health Authority, hospital or health system
- Any authorized users who is an employee, student or contractor of an academic institution (regardless of plans to release or publish data)
- Any user who is submitting an IRB proposal

Permission to report or publish Oregon ESSENCE data is granted only to individuals with approved requests. Requests for information only, without a need for access to Oregon ESSENCE data, do not require proposal submission.

Proposal Process

Provide the following information in a packet for the Review Committee:

- Concise description of the project objective(s) and research methods
- Data security plan detailing how data will be stored, accessed and destroyed at end of project
- Roles of any individual with access to the data; if the proposal involves a partnership with the Oregon ESSENCE Project provide the roles and responsibilities of all involved parties
- List of requested data elements (see the last portion of this proposal document for a list of available elements)
- Period of time you would like access to the data
- Signed ESSENCE Confidentiality Oath
- Plan for releasing, presenting or otherwise sharing ESSENCE data

What are the Review Criteria?

All requests will be evaluated based upon:

- Alignment with existing laws and rules
Release of the data requested must be allowable per the ESSENCE Data Use Agreements
- Study design
A sound and rigorous methodology that uses reliable and valid instruments is expected. Clear procedures for data confidentiality and plans for data destruction are required.
- Technical Assistance required from Oregon ESSENCE Operations
Oregon ESSENCE Operations staff will estimate the staff time and resource costs required in each proposal. The committee will decide whether the benefits of the proposed research outweigh the program costs.

What Follow-up is required?

- The Oregon ESSENCE Project has the right to review all manuscripts and presentations using Oregon ESSENCE data before dissemination or submission for publication.
- Share a copy of any manuscripts following publication and slides following presentation.
Oregon ESSENCE data use and project staff contribution should be acknowledged in all publications and presentations.
If members of Oregon ESSENCE have made substantial contributions to any project, the Oregon ESSENCE Project maintains the right to co-authorship.

PROPOSAL CHECKLIST

Please ensure that all necessary parts of the proposal are enclosed and that all materials are clear and legible.

- Objective(s) and Methods (no more than 1 page)
- Data Security Plan (no more than a paragraph)
- Roles of any individual with access to the data (detailed list)
- List of Data Elements Requested (fill out table on pgs. 5-6)
- Signed ESSENCE Confidentiality Oath
- Plan for dissemination of results
- Request for assistance with analysis or training in the ESSENCE application

Please send proposals to:

Oregon ESSENCE Manager

Email:

Oregon.ESSENCE@state.or.us

Mailing address:

RE: Oregon ESSENCE Proposal Review Committee
800 NE Oregon St, Ste. 772
Portland, OR 97232

Data elements available in Oregon ESSENCE		
Data Element Name	Description of Field	Requested? (Y/N)
Date/Time Of Message	Timestamp of when the message was created by the "sending system"	
Message Date/Time	Timestamp of when the message was created or generated from the "original or treating facility"	
Hospital/Urgent Care Center	Name of the treating facility	
Event Facility	NPI/OID identifier of the treating facility where the patient originally presented	
Medical Record Number	Unique identifier for the patient	
Gender	Gender of patient	
Race	Race of patient	
Patient Address	Patient residence (everything but street address)	
Ethnicity	Ethnicity of patient	
Patient Death Date and Time	If patient has died, death timestamp	
Patient Death Indicator	If patient has died, death flag	
Patient Class	Patient classification within facility	
Unique Visiting ID	Unique identifier for each visit	
Discharge Disposition	Patient's anticipated location or status following ED visit	
Admit Date/Time	Date/Time of patient presentation to treating facility	
Discharge Date/Time	Date and time of disposition	
Admit Reason	Reason patient is admitted as an inpatient from ED.	
Chief Complaint / Reason for visit	Short description of the chief complaint or reason for seeking care.	
Age	Numeric value of patient age at time of visit.	
<i>Initial Temperature</i>	1st recorded temperature, including units	
<i>Initial Pulse Oximetry</i>	1st recorded pulse oximetry value	
<i>Height</i>	Patient height	
<i>Weight</i>	Patient weight	
<i>Triage Notes</i>	Triage notes for the patient visit	

<i>Date of onset</i>	Date that patient began having symptoms of condition being reported	
<i>Clinical Impression</i>	Clinical impression (free text) of the diagnosis	
<i>Diagnosis / External Cause of Injury Code</i>	Diagnosis code or external cause of injury code; send all diagnoses here.	
<i>Diagnosis Date/Time</i>	Date and time of diagnosis	
<i>Diagnosis Type</i>	Qualifier for Diagnosis / Injury Code specifying type of diagnosis. Indicate initial, preliminary, working, final diagnoses here.	
<i>Procedure Code</i>	CPT code for any procedures conducted	

**Italics* indicates the field may not be available for all facilities.

Oregon Alliance to Prevent Suicide-Data and Evaluation Committee Workplan (2021-2022)

Goal	Strategies	Activities/ Topics	Timeline	Who's Responsible	Results	
					Outputs	Outcomes
Educate Alliance Data & Evaluation Committee Members on extant data sources, research and analysis relevant to suicide prevention	Coordinate topical presentations or discussions to occur during meeting times on relevant topics	ESSENCE-	ESSENCE Presentation TBD		ESSENCE Presentation occurred (date)	Additional questions or actions that emerge as a result of the presentation
		Crisis And Transition Services (CATS)				
		Crisis Text Line				
		Oregon Department of Education/SWIS data				
		Oregon Healthy Teens/Student Wellness Survey				

		Suicide Trends in Oregon compared to the US or other similar regions				
Identify novel data elements and analyses of existing data sources to support the evaluation of the YSIPP/ASIPP	Define and advocate for the creation of novel data elements or analyses of extant data sources	Training – Count of people trained in Big 6 - including workforce demographics	Metric 1 Date of Action		Measurement Definition Created, Advocacy Letter Drafted Etc.	What happened as a result of the output/did something change in systems or surveillance?
		Gatekeeper training tracking and evaluation - are these trainings being used and how?				
		ESSENCE	Analyses 1 Date of Action			
		Adi's Act- Count of schools with complete plans				
		Suicide Prevention Coalition Study				

		Stigma					
		Clinical Intervention Efficacy					