Syndromic Surveillance Plan
Nevada, 2016

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BACKGROUND

The Division of Public and Behavioral Health

The Division of Public and Behavioral Health's (DPBH) vision is to be the foundation for improving Nevada's health. To reach this vision, our mission is to protect, promote and improve the physical and behavioral health of the people in Nevada. There are several programs that ensure the health care delivery system in Nevada is of the highest quality possible – among the many programs is the Office of Public Health Informatics and Epidemiology (OPHIE). OPHIE's mission is to conduct disease surveillance, investigate outbreaks and initiate disease control activities through recording and analyzing reportable disease information, conducting interviews, identifying risk factors and working in conjunction with appropriate agencies to enforce communicable disease laws. OPHIE works collaboratively with the health jurisdictions in the state of Nevada which are Carson City Health and Human Services (CCHHS), Washoe County Health District (WCHD), Southern Nevada Health District (SNHD) and Rural Community Health Services (RCHS, the 12 rural counties in NV).

Syndromic Surveillance

Surveillance is an integral part of public health assessment, one of the three core public health functions. Through surveillance, public health officials and practitioners are able to monitor the health status of a population and make decisions that impact the health of these populations. According to the World Health Organization (WHO), the directing and coordinating authority for health within the United Nations system, surveillance is the cornerstone for public health security[1].

Unlike most other surveillance processes, however, syndromic surveillance uses near "real-time," pre-diagnosis health-related data and statistical tools. Syndromic surveillance systems enable public health agencies (PHAs) to provide timely assessments of population health that, in conjunction with other information, assist with selecting appropriate public health actions. Syndromic surveillance is particularly useful for situational awareness, response management, and outbreak recognition[8]. Although syndromic surveillance was developed for early detection of a large-scale release of a biologic agent, current surveillance goals reach beyond terrorism preparedness. One important goal of syndromic surveillance is the ability to utilize it for situational awareness. Situational awareness is another area where syndromic surveillance can be advantageous for public health professionals in monitoring the real-time status of an event. An event could be mass gatherings during high-profile events (e.g. Hot August Nights, Reno Air Races and Street Vibrations), natural disasters (e.g. floods and fires), disease outbreaks (e.g. norovirus, influenza) and unexpected events (e.g. terrorism, hazardous spills, and mass shootings). With this knowledge, public health professionals have the tools to navigate through these situations, allocate appropriate resources, and

target appropriate interventions in near real-time where multiple agencies and multiple data sets may be involved.

This report is designed to aid state, county, tribal, and local health authorities in the state of Nevada to improve syndromic surveillance methods and enhance collaboration. The goal is to promote and protect the health of all Nevadans, transients and tourists alike. In addition, this plan will set the foundation to strengthen Syndromic Surveillance systems and guide the program towards greater efficacy in the state of Nevada.

Meaningful Use

Meaningful Use is a set of standards to facilitate the effective use of electronic health information in improving health services set forth by the Centers for Medicare & Medicaid Services (CMS) [2]. It is an incentives program that encompasses the use of certified electronic health records in a meaningful fashion to improve the quality of care of patients[2]. OPHIE is committed to helping eligible hospitals (EHs) and eligible providers (EPs) in Nevada achieve meaningful use in stages as defined by the Health Information Technology for Economic and Clinical Health (HITECH) Act. Implementation allows for improvement of syndromic surveillance capability and increase the geographic coverage of the system to capture a larger population size[3].

There are currently three stages of Meaningful Use that have undergone several changes in the past years since their inception. The Stage 1 final rule set the foundation for the incentive programs; Stage 2 final rule expanded upon Stage 1 criteria with a focus on making sure that the Meaningful Use of electronic health records (EHRs) support the aims of the National Quality Strategy[4]. Although EHs and EPs can begin on the path to Meaningful Use in any fiscal year between 2011 and 2018, incentive payments that offset initial EHR technology costs are significantly higher for early adopters[5]. Figure 1 illustrates the stages of meaningful use.

Figure 1: Stages of Meaningful Use

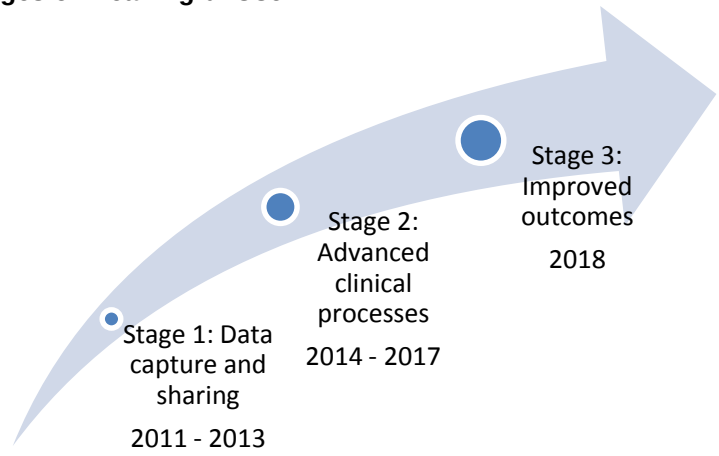


*Image adapted from https://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/downloads/MU_Stage1_ReqOverview.pdf

SYNDROMIC SURVEILLANCE SYSTEMS STATEWIDE

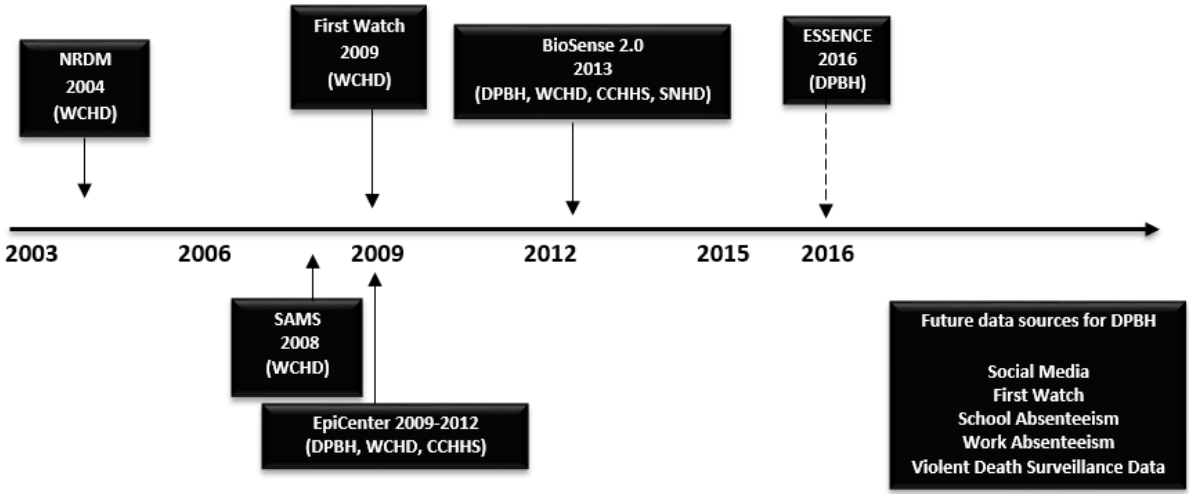
Syndromic surveillance systems are rapidly expanding and evolving nationally. They have been used for early detection of outbreaks, to follow the size, spread and tempo of outbreaks, to monitor disease trends, and provide immediate analysis and feedback to investigate and follow up on potential outbreaks[3]. The state of Nevada is composed of five health jurisdictions which operate syndromic surveillance systems in their own capacity; WCHD, SNHD, CCHHS, RCHS AND DPBH. Currently, four of the five jurisdictions in the state have syndromic surveillance systems in place that serve to assist them in outbreak detection, and monitoring the health status of their population. Table 1 provides a snap shot of the state of syndromic surveillance systems and data sources throughout Nevada as of December 2015.

Table 1: Active Syndromic Surveillance (SS) systems and data sources by jurisdiction in Nevada

HEALTH JURISDICTION	COUNTIES COVERED	SS Systems and Data Sources	CONTACT	EMAIL
WCHD	Washoe	BioSense 2.0, NRDM, ILI Net, SAMS, First Watch	Dr. Lei Chen, Ph.D.	EpiCenter@washoecounty.us
SNHD	Clark	BioSense 2.0, NRDM, HAvBed, First Watch, PEWSS	Linda Verchick, M.S.	Verchick@snhdmail.org
CCHHS	Carson City, Douglas, Lyon	BioSense 2.0, NRDM	Dustin Boothe, MPH	Dboothe@carson.org
RCHS	Churchill, Elko, Esmeralda, Eureka, Humboldt, Lander, Lincoln, Mineral, Nye, Pershing, Storey, White Pine	BioSense 2.0 NRDM HAvBed	Danika M. Williams, MPH	DMWilliams@health.nv.gov
DPBH	Interjurisdictional / Situational	NRDM BioSense 2.0 NEMSIS, HAvBed	Karen Felicetta. Brian Parrish, MPH. Liliana E. Wilbert, MPH.	KFelicetta@health.nv.gov BParrish@health.nv.gov LWilbert@health.nv.gov

*ILI Net: Influenza Like Illness Net – Sentinel Surveillance
*SAMS: School Absenteeism Monitoring System
*First Watch: Monitors REMSA/EMS and 911 dispatches – system monitoring varies per county usage
*PEWSS: Pediatric Early Warning Sentinel Surveillance – molecular viral respiratory surveillance
*HAvBed: Hospital Available Beds for Emergencies and Disasters
*RODS: Real-time Outbreak and Disease Surveillance – monitors Over the Counter (OTC) medication sales from NRDM

Figure 2: Timeline of Syndromic Surveillance systems in Nevada. The timeline depicts the Syndromic Surveillance systems in the state of Nevada by year of acquisition and jurisdiction. Dotted lines indicate future plans.



EPI Center

EpiCenter is a syndromic surveillance system that was utilized by state of Nevada epidemiologists from 2009-2012 to analyze chief complaint data and detect aberrations suggestive of outbreaks. It was developed as a "desktop application in a browser" and the software was fundamentally easy to use with a highly interactive service that allowed users (e.g. hospitals) to work with health information in their region[6]. Due to fiscal road blocks, EpiCenter was discontinued and the state transitioned to BioSense. Other jurisdictions such as Washoe County Health District and Carson City Health and Human Services also used EpiCenter in the past.

RODS / NRDM

Real Time Outbreak and Disease Surveillance (RODS) was implemented in 1999 in Pittsburg, Pennsylvania. The RODS system reached some milestones in the years following its implementation, one of which was the inclusion of over the counter (OTC) medication sales data from the National Retail Data Monitor (NRDM). RODS serves as the interface for NRDM[7]. The NRDM system monitors seventeen categories of OTC drugs (see Table 2). While RODS has the ability to collect emergency department data, the State of Nevada currently only has access to OTC medication sales data. The NRDM, in Nevada has been a secondary syndromic surveillance system since the implementation of BioSense in 2013. Table 2 lists the medicine categories monitored by NRDM.

Table 2: 17 OTC Medication Categories Monitored by NRDM: OTC medications are grouped into the following categories.

17 OTC Categories in NRDM
Antidiarrheal
Antifever Pediatric
Antifever Adult
Bronchial Remedies
Chest Rubs
Cold Relief Adult Liquid
Cold Relief Adult Tablet
Cold Relief Pediatric Liquid
Cold Relief Pediatric Tablet
Cough Syrup Adult Liquid
Cough Syrup Adult Tablet
Cough Syrup Pediatric Liquid
Electrolytes Pediatric
Hydrocortisones
Nasal Product Internal
Thermometers
Throat Lozenges

*Source: NRDM

Currently, there are a total of 289 stores in the state of Nevada that submit OTC sales data to the NRDM. The following table represents the amount of stores reporting OTC data to NRDM in Nevada by county as of December 2015.

Table 3: Number of Stores Reporting to NRDM per County in Nevada

NEVADA STORES BY COUNTY	
County	**Number of Stores**
Esmeralda	0
Eureka	0
Humboldt	0
Lander	0
Lincoln	0
Mineral	0
Pershing	0
Storey	0
White Pine	0
Churchill	2
Lyon	3
Nye	6
Douglas	3
Elko	4
Carson City	6
Washoe	42
Clark	223
TOTAL	**289**

*Source: NRDM

BioSense 2.0

BioSense is a cloud-based system developed by the National Syndromic Surveillance Program (NSSP) at the Centers for Disease Control and Prevention (CDC). The system is used for tracking health problems as they evolve and providing public health officials with the data, information and tools they need to handle disease outbreak responses. The goal is to improve situational awareness, and responsiveness to hazardous events and disease outbreaks. In November, 2011 the CDC made upgrades to the system and rolled out BioSense 2.0. It is a streamlined collaborative data-exchange system that enables its users, who have agreed to share health-related data, to track health issues as they develop and can be accessed via any browser. This information can be shared quickly with other public health jurisdictions in the system[8].

Although the system has great potential, users are restricted to the syndromes and search parameters set by the system. In addition, the system uses the chief complaint (CC) text field and ICD-9 codes for syndrome classification. Currently, the syndromic surveillance team at the DPBH is actively participating in the testing and enhancement of emergency department data through collaborative efforts with the NSSP, other states, and involvement in the EHR vendor workgroup within the BioSense user community. The NSSP is looking at making some additions and changes to the program in 2016, and the CDC will roll out more information in the near future.

ESSENCE

The Electronic Surveillance System for the Early Notification of Community-Based Epidemics (ESSENCE) is a system developed by Johns Hopkins' Applied Physics Laboratory and the Department of Defense. This is a nationally used system that Nevada plans to implement in 2016. As of December 2015, the DPBH has been in communication with the creators to obtain a customized version of the system that would address the unique needs of the Nevadan people. The system will offer a great deal of analytics, documentation of data, report generation capabilities, and options on classification of syndromes. Additionally, ESSENCE will also have the ability to induct multiple data sets (e.g. weather, air quality, OTC drug sales) in the same system.

REPORTING

State and Grant Requirements

Pursuant *NAC 441A*, the state of Nevada is in compliance with the mandate which requires the state has a syndromic system in place (see Appendix 1). In addition,

reporting of information to system by emergency facility, provider, or pharmacy is collected and analyzed to warrant a response if necessary (see Appendix 1). CDC's NSSP awarded the state of Nevada with a grant in 2015. The project period lasts from 9/31/2015 to 8/31/2019, and the award is under The National Syndromic Surveillance Program: Enhancing Syndromic Surveillance Capacity and Practice CDC-RFA-OE15-1502. Every year, the CDC requires grantees to submit interim progress reports which are compiled at the end of each grant year.

STAKEHOLDERS

Stakeholders are all entities interested in the information that the syndromic surveillance data can provide. It is important for all stakeholders to understand the advantages and limitations of syndromic surveillance data. Currently, stakeholders vary in all five health jurisdictions for several reasons. The main reason being not all health jurisdictions have the same systems in place. Furthermore, the populations range dramatically for each jurisdiction in demographics and interests which evoke different needs.

The importance of collaboration among the five jurisdictions is important. Collaboration between syndromic surveillance systems enhances collaboration among public health agencies, health care providers, information-system professionals, academic investigators, and industry. However, syndromic surveillance does not replace traditional public health surveillance, nor does it substitute for direct physician reporting of unusual or suspect cases of public health importance[3]. A current list of stakeholders is provided via a comprehensive spreadsheet of Hospitals on-boarded to BioSense and lists those hospitals that need a Data Use Agreement (DUA), the hospitals in the testing phase and those facilities that are reporting their data (Appendix 2).

DATA

There are different types of data that arrive to each jurisdiction based on the population size, population needs and resources available. Most jurisdictions have access to data from BioSense which provides a look into emergency department data from hospitals that are currently on-boarded. This data comes in electronically via HL7 messaging which then goes to the BioSense vendor (Inductive Health) and gets populated into BioSense for users to see. Other data sources are specific to certain areas. For example, WCHD has several data types such as school absenteeism, currently, and WCHD has approximately 107 public schools that report to School Absenteeism Monitoring System (SAMS), a homegrown system established in 2008. RODS / NRDM is also part of that data flow as it electronically collects OTC medication data that are grouped by zip code and category.

DISSEMINATION

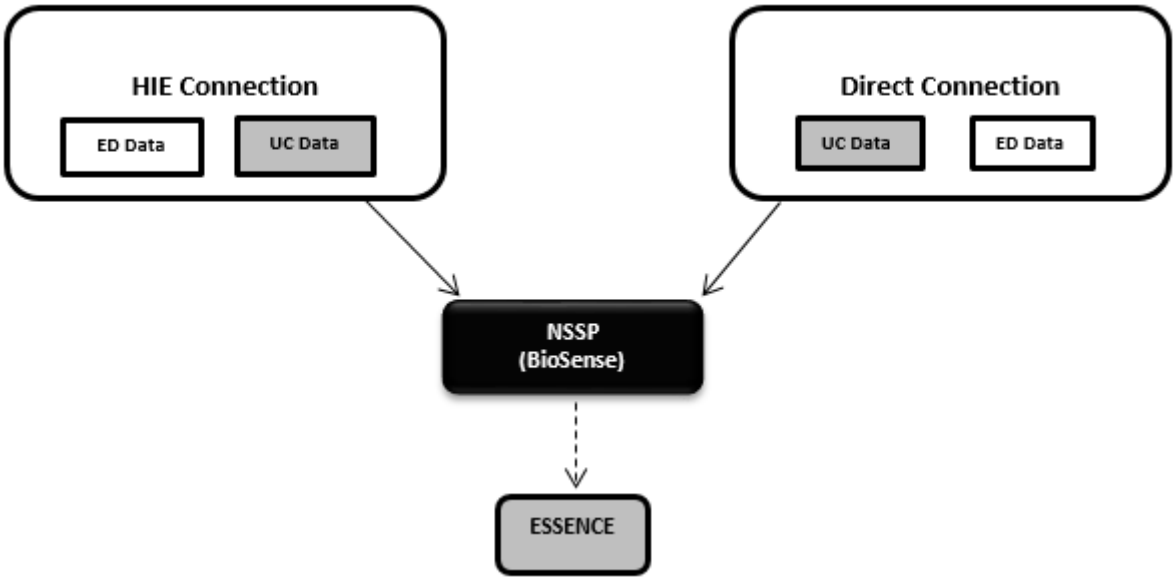
As of December, 2015 the DPBH, CCHHS, SNHD and RCHS are not disseminating syndromic surveillance data in the form of reports. WCHD is currently disseminating information from School Absenteeism Monitoring System (SAMS) to the Washoe County School District administrator and Student Health Service manager when they see aberrations in absenteeism. This dissemination is done after an investigation takes place and the data is thoroughly analyzed by the epidemiologist. SNHD currently disseminates Pediatric Early Warning Sentinel Surveillance (PEWSS) weekly bulletins to the medical community. This data is also disseminated to lay communities and plans are in place to begin situational awareness reporting to the public in the upcoming year. The current road block for disseminating data extracted from BioSense is the data quality. Data quality is currently a priority for the Syndromic Surveillance Epidemiologist at the DPBH. This is very important as data cannot be disseminated unless its quality is acceptable.

ACTION PLAN

The purpose for the development of this plan is to enhance the collection of health status information, and disseminate the surveillance information. The DPBH's vision is this plan will be utilized by all jurisdictions in the state of Nevada to communicate effectively in all public health events as well as to effectively neutralize and prevent future events from reaching large proportions. The future of syndromic surveillance in the state of Nevada includes expanding data types and systems such as implementing social media monitoring (e.g. Twitter, Google, and Wikipedia), zoonotic disease surveillance, school/work absenteeism, violent death surveillance data and First Watch statewide.

Below is a framework which includes current and future systems, as well as data types. Established connections are outlined in white and black boxes, the gray boxes are new sources of data the DPBH is working to obtain. Currently, data comes in to BioSense and RODS electronically via HL7 messaging either through a connection established with the Health Information Exchange (HIE) or directly from the facility which is referred to as a direct connection. At the moment, all health jurisdictions in the state of Nevada have access to BioSense 2.0 data. In the future, data will be funneled through BioSense into ESSENCE as well as additional data sources.

Figure 3: Current and future data flow: Figure 3 depicts the current and future of data sources for the DPBH. It outlines the different systems, data sources, data types and data.



*Gray boxes represent possible new sources of data and new system; dotted line represents future data transmission.

*UC: Urgent Care

Once systems are in place, the next step is to analyze the data to communicate the information. Table 4 lists the future communication of syndromic surveillance data. The DPBH is currently at Phase 1 and 2 of the communication framework.

Table 4: Surveillance Information Communication Framework

Phase 1: Assess the quality of the surveillance data
Phase 2: Define purpose for communicating the data
Phase 3: Define the audience
Phase 4: Develop message and select a channel
Phase 5: Market the information
Phase 6: Implement communication plan
Phase 7: Evaluate the process and outcomes

Source: Adapted from Parvana et al. 2002 (9); Remington and Nelson 2006 (10).

The first step is to assess the quality of the data which requires a detailed understanding of the surveillance system and data sets. This is done by the Business Process Analyst (BPA) who is part of the Syndromic Surveillance team at DPBH. The BPA tests facility messages and looks for completeness, reporting frequency and resolves transmission issues. Data quality is expected to greatly increase with the upcoming changes the NSSP is planning on making and the induction of ESSENCE. Second, the purpose for communicating the data needs to be defined; the communication objective needs to reflect the basic purpose of the surveillance system. Third, an audience needs to be identified to develop and tailor strategies for

communicating the information. Fourth, develop the message intended for that audience and test it on the intended audience, when the test is complete. Select the channel that this message will travel to the intended audience through (newspaper, television, bulletins, etc.). Fifth, once the audience and the channels of communication have been identified it is important to select an active communication strategy like television. Sixth, implement the communication plan and seventh, conduct a process evaluation and an outcome evaluation of the data dissemination to identify gaps and correct the communication process[9, 10].

Evaluation of systems is an important piece of syndromic surveillance. The purpose for an evaluation is to ascertain that issues of public health concerns are monitored effectively and that the systems function to meet objectives. In 2003 the CDC conducted a national working group on early outbreaks. The CDC offers a simplified version of the framework that lists questions regarding the timeliness, usefulness and validity of the outbreak-detection system[11]. Table 3 lists the tasks proposed by the CDC workgroup for evaluating syndromic surveillance systems proposed by the CDC. Evaluation is a very important step in order to see how efficacious a system is and if the cost is warranted.

Table 5: Tasks for evaluating surveillance system for early detection of outbreaks

Task A: Describe the system

1. Purpose: What is the system designed to accomplish?
2. Stakeholders: Whom does the system serve?
3. Operation: How does the system work?
    a. System wide processes
    b. Data sources
    c. Statistical analysis
    d. Data processing
    e. Epidemiologic investigation, analysis, and interpretation

Task B: Provide data demonstrating outbreak detection attributes

1. Timeliness: How early in the outbreak is the event detected?
2. Validity: How well does the system perform in distinguishing outbreak detection of public health significance from less important variations in disease trends?
    a. Sensitivity and predicted value: What percentage of signals by the system are relevant (true positives)? What percentage of negative results is truly negative?
    b. Data quality: How does the data quality affect validity of disease outbreak detection?
        i. Representativeness: How well does the system reflect the population of interest?
        ii. Completeness: What percentage of data is present for each record?

Task C: Describe the system experience

1. System usefulness: In what ways was the system demonstrated value relevant to public health?
2. Flexibility: How adaptable is the system to changing needs and thresholds?
3. System acceptability: Have stakeholders been willing to contribute to and use the system?
4. Probability: How readily can the system(s) nee in providing access to reproducible results?
5. System costs: What are the resource requirements to deploy and maintain the system?

Task D: Summarize conclusions and make recommendations for use and improvement of systems for early outbreak detections.

*Source: CDC. Framework for evaluating public health surveillance systems for early detection of outbreaks: recommendations from the CDC working group.

At the national level, a group of International Society for Disease Surveillance (ISDS) authors conducted a survey in 2007-2008 that included 59 state, territorial, and selected large local jurisdictions on syndromic surveillance in their respective areas. The results of the survey included responses of 46 out of 50 states, 2 out of 5 territories and all 3 local jurisdictions[12]. Results of this survey suggest that syndromic surveillance is widely used in the United States and nearly all respondents plan on expanding their systems[13].

Syndromic surveillance is rapidly expanding nationwide and systems are evolving. This evolution includes an expansion of the practice of syndromic surveillance, its methods, and uses[12]. The State of Nevada's Syndromic Surveillance team located within OPHIE is actively working on expanding these systems and making the current syndromic surveillance systems more robust by collaborating with all Nevada's Health Jurisdictions, and Federal partners to enhance the functions of the existing systems for optimum performance.

Syndromic surveillance can only be used as a supplemental surveillance tool to improve public health surveillance capacity; it cannot replace traditional surveillance systems because syndromic surveillance primarily focuses on aggregate level data due to the use of de-identified data[14]. While traditional surveillance can be seen as doors or windows to your house which are essential components to protect your safety, syndromic surveillance can be seen as your "home security system" for enhanced protection of your safety. Although such a system may rarely be triggered or used, once an emergency takes place, a house with a "home security system" will have better protection, less damage and ultimately better protect human safety[14]. A situational awareness framework is being developed to guide information flow to further understand events in real-time and maximize response. This plan will be updated as deemed necessary.

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APPENDIX 1

NAC 441 A

SYSTEM FOR SYNDROMIC REPORTING AND ACTIVE SURVEILLANCE

NAC 441A.900 Definitions. (NRS 441A.120**,** 441A.125**)** As used in NAC 441A.900 to 441A.940, inclusive, unless the context otherwise requires:

1. "Emergency facility" means:

(a) A hospital that provides emergency services and care, including, without limitation, services and care provided through an emergency department or emergency room; and

(b) An independent center for emergency medical care as defined in NRS 449.013.

2. "Pharmacy" has the meaning ascribed to it in NRS 639.012.

3. "System for syndromic reporting and active surveillance" means the system for syndromic reporting and active surveillance developed by the Board pursuant to NRS 441A.125.

(Added to NAC by Bd. of Health by R087-08, eff. 1-13-2011)

NAC 441A.905 "Active surveillance" interpreted. (NRS 441A.120**,** 441A.125**)** The Board interprets the term "active surveillance," as used in NRS 441A.125 and NAC 441A.900 to 441A.940, inclusive, to mean that the health authority has initiated contact with an emergency facility, a health care provider or a pharmacy to obtain information relating to public health, including, without limitation, information concerning the number of patients who were cared for at the emergency facility or by the health care provider, the medical diagnoses of those patients, and other information concerning the signs or symptoms of disease.

(Added to NAC by Bd. of Health by R087-08, eff. 1-13-2011)

NAC 441A.910 "Major event" interpreted. (NRS 441A.120**,** 441A.125**)** The Board interprets the term "major event," as used in NRS 441A.125 and NAC 441A.900 to 441A.940, inclusive, to mean:

1. An assembly, meeting or other gathering of persons in this State that the health authority determines may be the object of an act of biological terrorism because the gathering is unusually large or attended by one or more public figures, including, without limitation, a head of state;

2. A determination by the Secretary of the United States Department of Homeland Security that the threat of a terrorist attack on the United States or to a particular geographic region or industrial sector is "severe";

3. A state of emergency or declaration of disaster proclaimed by the Governor or resolved by the Legislature pursuant to NRS 414.070;

4. A known or suspected release of a biological or chemical agent within the United States that may pose a threat to the public health in this State;

5. A known or suspected national, pandemic or global outbreak of disease; or

6. A local outbreak within this State of an illness that is known or suspected to be related to the use of a biological, chemical or radiological weapon.

(Added to NAC by Bd. of Health by R087-08, eff. 1-13-2011)

NAC 441A.915 "Syndromic reporting" interpreted. (NRS 441A.120**,** 441A.125**)** The Board interprets the term "syndromic reporting," as used in NRS 441A.125 and NAC 441A.900 to 441A.940, inclusive, to mean the collection and analysis of health-related data that precede diagnosis and may

warrant a public health response because it signals a sufficient probability of a case, an outbreak of disease or other public health emergency.

(Added to NAC by Bd. of Health by R087-08, eff. 1-13-2011)

NAC 441A.920 Reporting of information to system by emergency facility or health care provider. (NRS 441A.120**,** 441A.125**)**

1. The health authority may require an emergency facility or a health care provider to report information to the system for syndromic reporting and active surveillance during a major event or if the health authority determines that the reporting is otherwise appropriate and necessary to monitor the public health in this State.

2. An emergency facility or health care provider that is required to report information pursuant to subsection 1 shall report the information in the form and manner prescribed by the health authority. The information must include, without limitation:

(a) The name of the emergency facility or health care provider;

(b) The name and telephone number of the person making the report;

(c) The date of the report;

(d) The period covered by the report;

(e) The total number of patients who were cared for at the emergency facility or by the health care provider during the period covered by the report; and

(f) The number of such patients with:

(1) Cranial nerve impairment with weakness or any bilateral weakness of the face or limbs;

(2) Unexplained death or illness with a history of fever;

(3) Gastrointestinal syndrome, diarrhea or gastroenteritis, including, without limitation, vomiting or abdominal cramps;

(4) Neurological syndrome, meningitis, encephalitis, unexplained acute encephalopathy or a change in mental status with fever;

(5) Rash, blisters and localized skin lesions, with or without fever;

(6) Shortness of breath, with or without fever;

(7) Sepsis or nontraumatic shock;

(8) Hemorrhagic illness, with or without fever;

(9) Lymphadenitis, with or without fever;

(10) Any other sign, symptom or syndrome that is specified by the health authority; or

(11) Any combination of the signs, symptoms or syndromes described in subparagraphs (1) to (10), inclusive.

(Added to NAC by Bd. of Health by R087-08, eff. 1-13-2011)

NAC 441A.925 Reporting of information to system by pharmacy. (NRS 441A.120**,** 441A.125**)**

1. The health authority may require a pharmacy to report information to the system for syndromic reporting and active surveillance during a major event or if the health authority determines that the reporting is otherwise appropriate and necessary to monitor the public health in this State.

2. The information provided to the health authority pursuant to this section may include, without limitation, data concerning sales by the pharmacy of certain specified drugs, controlled substances, poisons, medicines, chemicals or medical devices.

(Added to NAC by Bd. of Health by R087-08, eff. 1-13-2011)

NAC 441A.930 Voluntary program for reporting information to system; acceptance by health authority of information voluntarily reported in lieu of information otherwise required. (NRS 441A.120**,** 441A.125**)**

1. The health authority may establish a voluntary program in which an emergency facility, a health care provider or a pharmacy agrees to report information to the system for syndromic reporting and active surveillance in the absence of a major event or determination by the health authority that the reporting is otherwise appropriate and necessary to monitor the public health in this State.

2. During a major event or if the health authority determines that reporting information to the system for syndromic reporting and active surveillance is otherwise appropriate and necessary to monitor the public health in this State, the health authority may agree to accept the information reported by a participant in a voluntary program established pursuant to subsection 1 in lieu of any information that could otherwise be required pursuant to NAC 441A.920 or 441A.925 if the health authority determines that the information voluntarily reported is substantively equivalent to the information that would otherwise be required.

(Added to NAC by Bd. of Health by R087-08, eff. 1-13-2011)

NAC 441A.935 Reporting of additional information to system upon request by health authority; information of personal nature deemed confidential medical information. (NRS 441A.120**,** 441A.125**)**

1. If an emergency facility, a health care provider or a pharmacy reports information to a health authority pursuant to NAC 441A.920, 441A.925 or 441A.930 and the health authority obtains an epidemiological analysis of that information which reveals a pattern of illness that suggests a potential outbreak of illness or other public health emergency, the health authority may require the emergency facility, health care provider or pharmacy to report additional information, which may include, without limitation, information of a personal nature about a patient.

2. Information of a personal nature about a patient that is reported to a health authority pursuant to this section shall be deemed to be confidential medical information that is subject to the provisions of NRS 441A.220.

(Added to NAC by Bd. of Health by R087-08, eff. 1-13-2011)

NAC 441A.940 Provisions do not prohibit health authority from acquiring information from other sources for inclusion in system. (NRS 441A.120**,** 441A.125**)** The provisions of NAC 441A.920 to 441A.935, inclusive, do not prohibit a health authority from acquiring information from other sources for inclusion in the system for syndromic reporting and active surveillance.

(Added to NAC by Bd. of Health by R087-08, eff. 1-13-2011)

APPENDIX 2

*Facilities in red are VA facilities, their data is submitted to the Data2 environment, and Data3 is the production environment.

For detailed information on the table below please contact the Division of Public and Behavioral Health's Syndromic Surveillance Team.

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FACILITY	ONBOARDING STATUS
Banner Churchill Hospital	On-Board
Battle Mountain General Hospital	On-Board
Boulder City Hospital	Signed DUA & Registration Form coming soon.
Carson Valley Medical Center	On-Board
Carson Tahoe Continuing Care Hospital	On-Board
Carson Tahoe Regional Medical Center	On-Board
Carson Tahoe Sierra Surgery Center	On-Board
Centennial Hills Hospital	On-Board
DOD - Mike O'Callahan Federal Hospital(O'Callaghan Hospital-99Th Med Grp	On-Board
DOD - Naval Branch Health Clinic (NBHC) - Fallon	On-Board
DOD - VA Southern Nevada Healthcare System	On-Board
Desert Springs Hospital Medical Center	On-Board
Desert View Regional Medical Center	Test Needed
Grover C. Dils	Testing
Humboldt General Hospital	On-Board
Incline Village Community Hospital	On-Board

Mesa View Regional Hospital	On-Board
Mount Grant General Hospital	Pre-Testing Validations
Mountain View Hospital	On-Board
North Vista Hospital	Testing
Northeastern Nevada Regional Hospital	On-Board
Northern Nevada Medical Center	On-Board
Pershing General Hospital	On-Board
Renown Regional Medical Center	On-Board
Renown South Meadows	On-Board
South Lyon Medical Center	On-Board
Southern Hills Hospital & Medical Center	On-Board
Spring Valley Hospital Medical Center	On-Board
St. Mary's Regional Medical Center	On-Board
St. Rose Dominican - San Martin Campus	On-Board
St. Rose Dominican Hospital - Rose de Lima Campus	On-Board
St. Rose Dominican Hospital - Siena Campus	On-Board
Summerlin Hospital Medical Center	On-Board
Sunrise Hospital & Medical Center	On-Board (direct)
University Medical Center of Southern Nevada (UMCSN)	Need Registration Form
VA Pahrump Community Based Outpatient Clinic	On-Board
VA Carson Valley Outpatient Clinic	On-Board
VA Ely CBOC (Community Based Outpatient Clinic)	On-Board
VA Lahontan Valley Outpatient Clinic	On-Board
VA Northeast Primary Care Clinic	On-Board
VA Northwest Primary Care Clinic	On-Board
VA Sierra Nevada Health Care System	On-Board
VA Southern Nevada Healthcare System	On-Board
VA Southeast Primary Care Clinic	On-Board
VA Southwest Primary Care Clinic	On-Board
Valley Hospital Medical Center	On-Board
William Bee Ririe Hospital	Testing