HIV Cluster and Outbreak Detection and Response Plan
State of Nevada

Version 4

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Version History

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HIV Cluster and Outbreak Detection and Response Plan

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About this Plan

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** Individuals are no longer working within these capacities*

- **In developing this plan, the health department engaged the following key stakeholders and stakeholder groups:**
    a. *Please describe which entities (e.g., community advisory board, emergency response program, HIV care providers) were consulted in the development of this plan.*
    The State of Nevada - Office of HIV consulted with the following entities in the development of Nevada's HIV Cluster and Outbreak Detection and Response Plan: Southern Nevada Health District (SNHD), Washoe County Health District (WCHD), Carson City Health and Human Services (CCHHS), Northern Nevada HIV Prevention Planning Group (NNHPPG), Southern Nevada HIV Prevention Planning Group (SNHPPG), Las Vegas TGA Ryan White Part A Program, Ryan White Part B Program, University of Nevada, Reno (UNR) School of Community Health Sciences (SCHS), Southern Nevada Harm Reduction Program Trac-B Exchange, Southern Nevada Harm Reduction Coalition, Northern Nevada HOPES Change Point, Nevada Office of Analytics, and Nevada Office of Emergency Preparedness.

    b. *Please describe how input was gathered and how it was incorporated into the plan.*
    The State of Nevada - Office of HIV's HIV Prevention and Surveillance Program (HPSP) gathered input by developing an internal workgroup that included Nevada's local health departments and Ryan White Parts A-F.

Authority

There are several laws, regulations, and guidelines that govern Nevada public health activities. Chapter 441A (Infectious Disease; Toxic Agents) of the Nevada Revised Statutes (NRS) and the Nevada Administrative Codes (NAC) provides authority for the management of disease in Nevada. Several sections within the NRS and NAC authorize the State Board of Health, State Health Commissioner, local health authority (LHA), and district health officers (directly or as a designee of the Commissioner) to perform certain acts to protect the health of citizens. The surveillance and investigation activities authorized within the NRS, NAC, and corresponding authority are listed in Table 1.

Table 1

STATUTES	AUTHORITY
Reporting of Disease **NRS 441A.150** **NAC 441A.225-260**	Mandates reporting occurrences of communicable diseases to the health authority.
Investigation of Disease **NRS 441A.160-169**	Authorizes the health authority to conduct investigations of communicable diseases and epidemics.
Regulations Governing Control **NRS 441A.120**	Authorizes the State Board of Health to make regulations governing the control of communicable diseases in Nevada, including regulations specifically relating to the control of diseases in educational, medical, and correctional institutions.
Disease Control Measures **NRS 441A.180** **NRS 441A.560**	Outlines the procedures for prevention of exposure to others and isolation or quarantine in Nevada.
Sterile Hypodermic Device Program **NRS 439.985 - 439.994**	In 2013, Nevada Legislature added a provision allowing for hypodermic device programs, also known as syringe services programs. The function of sterile hypodermic device programs is to enable the use of sterile hypodermic devices and other related material for use among people who inject drugs to reduce the intravenous transmission of diseases. This statute guarantees that sterile hypodermic devices and other sterile injection supplies are not deemed illegal and ensures the availability and accessibility of sterile hypodermic devices by encouraging distribution of such devices by various means.

As indicated above, the State Board of Health has the responsibility for promulgating regulations and administrative codes pertaining to the reporting and control of diseases of public health importance. This includes preventing any potential emergencies and responding to any emergency caused by a disease dangerous to public health, to include hepatitis B, hepatitis C, and HIV.

Table 2

LAW/SECTION	DESCRIPTION/POINT OF INTEREST
Robert T. Stafford Disaster Relief and Emergency Assistance Act, Public Law 93-288, as amended	Authorizes the delivery of federal technical, financial, logistical, and other assistance to states and localities during declared major disasters or emergencies.
Public Health Service Act Section 319	Authorizes the HHS secretary to determine that a public health emergency exists, which triggers emergency powers that permit the federal government to assist state and local governments, suspend or modify certain legal requirements, and expend available funds to address public health emergencies. *A Section 319 public health emergency declaration is separate and distinct from a presidential declaration under the National Emergencies Act or the Stafford Act.*

SECTION 1: Internal Collaboration to Support Cluster and Outbreak Detection and Response

Describe internal structures, policies, and collaborations that ensure a strong foundation for HIV cluster and outbreak response activities within the health department. For each element, please indicate who in your organization (by job title) is involved in the activity and identify the responsible party.

I. Oversight and management **Document the individuals (by job title) and groups responsible for management and oversight of HIV cluster and outbreak detection and response, including the reporting chain.**		
Question/Activity	**Response/Plan**	**Responsible Party**
a) Describe any working groups, leadership teams, or other standing bodies responsible for leading and managing these activities. Attach any documents describing the functions of the group (e.g., charters, memoranda of understanding, organizational charts), if applicable.	Nevada's Office of HIV, HPSP will hold quarterly meetings, led by the Nevada HPSP Manager with participation from the LHAs and Partner Services staff. Staff included within Nevada's HPSP are the HIV Prevention and Surveillance Manager, HIV Prevention Coordinator and Partner Services Program Manager, and HIV Surveillance Epidemiologist. Cluster detection activities will be a standing discussion topic. In the event an outbreak warrants an escalated response, participants within the meeting may also include community stakeholders (such as community-based organizations (CBOs), businesses, individual community members) and those involved within population to ensure representation within the meeting. The participants involved (with state oversight) would be aligned within a level of the response grid as noted below: - All levels: Health Educator	Leader: Nevada HPSP Manager Participants: Nevada HPSP staff, Nevada Office of Analytics, Nevada state Disease Control Specialist (DCS) SNHD Communicable Disease Manager (CDM), SNHD Communicable Disease Supervisor (CDS), SNHD Surveillance Supervisor, SNHD Senior Epidemiologist, SNHD Disease Investigation and Intervention Specialists (DIIS), WCHD Public Health Nursing Supervisor, WCHD Health Educator Coordinator, WCHD Public Health Investigators, and CCHHS Epidemiology Division Manager (EDM)

	Coordinator/Communicable Disease Supervisor/Disease Prevention and Control Manager - Complex cluster or elevated response: Epidemiology Program Manager/Senior Epidemiologist and state level assistance - Highest level exceeding LHA resources: CDC and possible Epi-Aid for short-term field investigation	
b) Describe roles and process for coordination, oversight, and responsibility for the overall program, in addition to contributions from specific programs and activities (e.g., HIV surveillance, prevention, care, and STI prevention programs).	The HPSP will provide oversight of the overall program's efforts to understand transmission clusters and risk networks to determine an appropriate public health response that reduces transmission. During these quarterly meetings, each LHA will provide an update regarding any recently detected clusters or growth of older clusters in their jurisdiction. The meeting will also address possible infection/transmission trends and discuss potential responses. At least annually, this cluster detection and outbreak response plan will be reviewed and updated with any improved processes for effectively responding to transmission clusters.	Leader: Nevada HPSP Manager Participants: Nevada HPSP staff, Nevada Office of Analytics, Nevada state DCS, SNHD CDM, SNHD CDS, SNHD Surveillance Supervisor, SNHD Senior Epidemiologist, SNHD DIIS, WCHD Public Health Nursing Supervisor, WCHD Health Educator Coordinator, WCHD Public Health Investigators, and CCHHS EDM

II. Staff capacity and training **List staff from various health department programs who support cluster and outbreak detection and response and indicate their role(s). This should include staff contributing to leadership, coordination, and front-line cluster response activities**		
Question/Activity	**Response/Plan**	**Responsible Party**
a) Document initial and ongoing training required or available for these staff, including data security and confidentiality, Secure HIV-Trace, Passport to Partner Services, and any other relevant training**.**	Annual training requirements for all staff include completion of HIPAA and Confidentiality Awareness training, Information Systems Security Awareness training, and Data Security and Confidentiality training. All staff must also complete the Federal Emergency Management Agency (FEMA) Institute training as it relates to the Incident Command System (ICS) and incident response. All Disease Intervention Specialists (DIS) must attend Passport to Partner Services initial training and refresher training when a supervisor deems it necessary. All trainings are documented by supervisor and by Department of Human Resources. Other training that supports the use of Secure HIV-Trace is available for surveillance staff, including Introduction to HIV evolution training and Centers for Disease Control and Prevention (CDC) developed user guides, power points, and webinars. This may also include collaboration with other jurisdictions to share best practices and lessons learned, similarly to what is shared within CDC	Nevada HPSP staff, Nevada Office of Analytics, Nevada state DCS, WCHD Public Health Nursing Supervisor, WCHD Health Educator Coordinator, WCHD Epidemiology Program Manager, CCHHS EDM, and CCHHS Public Health Investigator

	Technical Assistance meetings.	
b) Include training and other capacity-building support available to local/regional health departments and other partners who support cluster and outbreak detection and response.	Technical assistance with agencies such as California Prevention Training Center (CPTC) is available upon request. Nevada HPSP conducts de-duplication projects as required by CDC and receives technical assistance when requested. LHAs and other partners may receive technical assistance from the state HPSP based upon the type of assistance needed and source will be determined. Within the quarterly HPSP meetings held, the agenda allows for all LHAs to identify any technical assistance needs. Also, capacity building needs are discussed during annual site visits to health departments, or as often as needed. Beyond the managers attending the HPSP quarterly meetings, other staff lending guidance and interpreting data may include DIS with familiarity within communities sharing experience and observations, staff involved in other cluster detection activities providing lessons learned, or out of jurisdiction partners sharing best practices.	Nevada HPSP staff, Nevada Office of Analytics, Nevada state DCS, SNHD, WCHD, and CCHHS
c) As an appendix, include a table of staff currently serving in each job title that supports cluster and outbreak detection and response, as outlined above.	Please see Appendix A	Please see Appendix A

III. Funding for cluster response activities

Indicate sources of funding that currently support routine cluster response activities and those that can be redirected or supplemented quickly, if needed, for a given response. This funding might come from state or local health department funding or funding from cooperative agreements with federal agencies or other partners; funds might be needed to support new or expanded activities related to HIV prevention and care, Disease Intervention Specialists (DIS), or additional data collection. Activities might be supported directly by program funds or via new or existing contracts.

Response/Plan	Responsible Party
The HPSP is funded by a CDC federal grant, covering routine cluster response activities. In the event an escalated response is needed, other grant-funded programs such as HIV Prevention funding or Ending the HIV Epidemic may be used, if permitted, to support an outbreak response. The state can ask for general funds to support an outbreak response or request emergency funding through the Interim Finance Committee (IFC). Local health jurisdictions may use state funds or leverage general funds that are supported through local tax dollars, if approved by their administration. If the ICS is initiated, FEMA funding is another resource that could be leveraged.	Nevada HPSP staff, Nevada Office of Analytics, Nevada state DCS, SNHD, WCHD, and CCHHS EDM

IV. Data sharing

Document existing or planned data sharing arrangements (DSAs) between programs within your organization to support cluster detection and response activities.

Question/Activity	Response/Plan	Responsible Party
a) List any relevant data sharing arrangements between programs in your health department (e.g., HIV surveillance and Ryan White HIV/AIDS Programs), as applicable. For each, indicate whether a memorandum of understanding or data sharing agreement is in place or planned.	Nevada's HPSP has data sharing agreements with LHAs (SNHD, WCHD, and CCHHS) as documented within the subgrant awards. Data is shared in accordance with Data Security and Confidentiality guidelines that are developed from the CDC guidelines. Any additional individuals included within response activities will complete HIPAA	Nevada HPSP staff, Nevada Office of Analytics, Nevada state DCS, SNHD, WCHD, and CCHHS EDM

	and Data Security and Confidentiality training, depending on the level of involvement. Within Nevada's Division of Public and Behavioral Health (DPBH), the HPSP has an MOU in place between Ryan White and the Office of Analytics. For external entities, data sharing agreements are necessary and undergo thorough interlocal review with risk assessment, information technology, legal, and health department administration prior to board approval.	

V. Data protection **Describe the current status of protections that ensure HIV data are used only for public health purposes.**		
Question/Activity	**Response/Plan**	**Responsible Party**
a) Document how data requests from non-public health partners are triaged and addressed. Attach relevant protocols/policies as appendices. Address requests from, for example, the following:	N/A	N/A
i. Law enforcement and the justice system	Nevada's HPSP does not release information to law enforcement or the justice system without a court order and approval from Nevada's Attorney General's Office. In local health jurisdictions, requests are routed through the jurisdiction's legal department in which a court order or subpoena is required, and data sharing decisions are made through collaborative efforts between legal counsel	Nevada HPSP staff, Nevada's Attorney General's Office, and legal counsel and district health officer for SNHD, WCHD, and CCHHS

	and the district health officer.	
ii. Academic institutions, media, and other non-public health entities.	Nevada has limited data sharing agreements with local academic institutions. A data sharing agreement is created through the process highlighted in I.IV.a, and is on an individual project basis with academic institutions. The standardized process for an HIV data request begins with the process being submitted to the Nevada HPSP for review, and then forwarded to the Nevada Office of Analytics for data extraction and matching followed by internal peer review prior to release. Any media and non-public health releases must be approved by the Public Information Officer (PIO) in accordance with the Data Security and Confidentiality guidelines regarding what is authorized for release.	Nevada HPSP staff and Nevada Department of Health and Human Services PIO
b) Document current or planned efforts to improve data protection policies and practices.	The Nevada HPSP follows the state's data security processes and reviews the CDC's Data Security and Confidentiality guidelines annually. All matters related to data security must be approved by the DPBH data security officer. Each jurisdiction updates their Data Security and Confidentiality Policy annually, which is also reviewed by the state annually. All staff working with protected health information (PHI)	Nevada HPSP staff, Nevada Office of Analytics, Nevada state DCS, SNHD CDM, SNHD CDS, SNHD Surveillance Supervisor, SNHD Epidemiology Supervisor, WCHD Health Educator Coordinator, and CCHHS EDM

	complete Data Security and Confidentiality training annually with certificates maintained by each LHA. Efforts for improvement include an annual computer-based training on data security and confidentiality for employees working with HIV data. This includes reviewing and implementing various computer security controls for data protection, such as network authentication, encryption, virtual private network, and information security training.	

SECTION 2: External Partnerships to Support Cluster and Outbreak Detection and Response

I. Community engagement

Describe your community engagement activities related to HIV cluster and outbreak detection and response, including initial activities and ongoing engagement.

Question/Activity	Response/Plan	Responsible Party
a) Address engagement activities with all relevant communities, such as people with or at risk for HIV, providers, CBOs, community coalitions, and community planning groups.	Nevada HPSP works closely with the LHAs, NNHPPG, and SNHPPG. The NNHPPG meets quarterly with a representative from WCHD serving as the public health co-chair. Activities include engaging NNHPPG members on ideas to address outbreaks/clusters in their represented communities as well as providing annual presentations on HIV surveillance to NNHPPG members that include cluster and outbreak information.	Nevada HPSP staff, SNHD Senior Health Educator, SNHPPG public health co-chair, WCHD Health Educator Coordinator, NNHPPG public health co-chairs, CCHHS EDM, and CCHHS Public Health Investigator

	The SNHPPG meets quarterly with a representative from SNHD serving as the public health co-chair. SNHPPG members provide input, questions, or concerns to SNHD for consideration and implementation, such as providing target populations with HIV testing and condom distribution activities. Combined NNHPPG and SNHPPG meetings also occur at least once per year to collaborate on statewide efforts, such as legislation or providing input into The Nevada Integrated HIV Prevention and Care Plan.	
b) Provide a description of venues, frequency of engagement, and your process for incorporating community feedback into program implementation.	The HPSP meets with LHAs and the HIV Prevention and Care Integrated Planning Committee quarterly to discuss the goals and deliverables of the outbreak response plan as well as garner public feedback or recommendations. Annually, the HPSP presents the epidemiological profile to the local HPPGs to address any data concerns and to allow for feedback. In the event of an outbreak, CBOs, coalition and other community stakeholders will be engaged within community meetings designed to share generalized aggregate data (such as identified locations or behaviors) and the anticipated response. Regular updates will be shared with the stakeholders on an agreed upon timeframe	Nevada HPSP staff, SNHD CDM, SNHD Supervisors, WCHD Health Educator Coordinator, NNHPPG public health co-chairs, CCHHS EDM, and CCHHS Public Health Investigator

	to keep the greater community and target population abreast of cluster status and actioned items. Feedback will be solicited to make any necessary adjustments to the response plan.	

II.	**Collaboration with external partners** **Describe your process for identifying key partners in the community and collaborating with them to prepare for and implement cluster and outbreak response activities.**	
Question/Activity	**Response/Plan**	**Responsible Party**
a) **Compile a list of community partners well-positioned to support the full range of cluster response activities, including (but not limited to): HIV testing in clinical or non-clinical settings, PrEP, harm reduction, HIV care and linkage to care, linkage to key social services.**	Each LHA will coordinate with local CBOs, local syringe service programs, HIV providers, emergency rooms (ERs), law enforcement, and substance use treatment providers to prepare for and implement cluster and outbreak response activities. The LHAs maintain internal lists and information for identifying collaborative partners in the event of needing to activate a response request. These efforts have been established through training with several community partners (identified within internal LHA plans) to assist with HIV testing and counseling. Also, there is routine collaboration with local SSP and prevention agencies that can assist with harm reduction, SSP, PrEP referral, follow-up testing, and care activities. Adhoc collaboration group will be formed based on outbreak demographics and population needs while taking into consideration health equity principles.	Nevada HPSP staff, SNHD CDM, WCHD Health Educator Coordinator, WCHD public health investigators, NNHPPG public health co-chairs, and CCHHS EDM will engage with community partners

	These efforts also include engaging with Nevada's Ryan White Programs A-D and their Resource Guide (see Appendix B).	
b) Explain your framework and your process for engaging community partners to develop their role in routine cluster response activities and to prepare for effective collaboration in outbreak response.	SNHD and WCHD have internal outbreak response plans and collaborate with community partners to define roles in cluster response activities (see Appendix C). This means including community stakeholders who are reflective of the outbreak population. Community entities will be tasked with engaged with target populations and integrating community efforts with LHA/state efforts. Maximizing participation and resources would include tailoring efforts towards specific populations and possibly performing atypical roles for entities such as Federally Qualified Health Centers (FQHCs), ERs, primary care providers, and those typically involved (i.e., HIV providers, LHA, state-level DHHS). HPSP systematically uses time-space approaches (via CDC developed SAS code) to detect clusters and outbreaks and uses LHAs and HPPG meetings to engage with community partners to prepare for any potential outbreak response.	Nevada HPSP staff, SNHD CDM, WCHD Health Educator Coordinator, and CCHHS EDM
c) Indicate your process for identifying and addressing gaps in available services through existing or new partnerships.	During annual assessment, the HPSP and LHAs review the current outbreak response plan and identify potential new partnerships to improve Nevada's outbreak response. This includes opening the	Nevada HPSP staff, SNHD CDM, WCHD Health Educator Coordinator, WCHD public health investigators, NNHPPG public health co-chairs, and CCHHS EDM

	process up to engage new community stakeholders as they are identified, when needed.	

III.	Data sharing **Document existing or planned DSAs with programs outside your organization to facilitate cluster detection and response activities. Attach relevant MOUs/DSAs, as needed. Ensure that the purposes and uses of shared data are clearly articulated.**	
Question/Activity	**Response/Plan**	**Responsible Party**
a) List all relevant DSAs with programs outside your health department (e.g., local health departments, HIV care providers, CBOs). For each, indicate if an MOU or signed DSA is in place or is planned.	The Nevada HPSP has data sharing agreements with LHAs as is directed within subgrant awards and follows the Data Security and Confidentiality protocols. LHAs also implement and maintain DSAs with contracted HIV prevention providers who allow access to priority populations.	Nevada HPSP staff, SNHD CDM, WCHD, and CCHHS EDM
b) For any existing DSA, indicate what data are included (e.g., aggregate data, identifiable or de-identified individual-level data), how data are securely transferred and stored, activities supported by the data sharing, and the terms by which they can be further released.	All HIV data collected by the LHAs are supported by contracts, thus all data collected belongs to the State of Nevada. All data collected during HIV testing and investigation are reported to the state and securely stored on a file server housed within the State of Nevada as is outlined within the Data Security and Confidentiality protocols. LHAs also ensure DSAs are routinely updated, and data transfers are secure such as through Secure File Transfer Protocol (SFTP).	Nevada HPSP staff, SNHD CDM, SNHD Informatics Data Officer, WCHD Health Educator Coordinator, WCHD Public Health Nursing Supervisor, WCHD Epidemiology Program Manager, WCHD Epidemiology and Public Health Preparedness (EPHP) Division Director, WCHD Community and Clinical Health Services (CCHS) Division Director, and CCHHS EDM
c) Describe any existing data sharing procedures or agreements for collaborating with other state health departments in case of multi-jurisdictional cluster investigations,	Nevada HPSP currently does not have data sharing agreements with outside jurisdictions. However, case de-duplication efforts are routinely conducted with other jurisdictions per CDC requirements through	Nevada HPSP staff, University of California, San Diego, and San Diego Center for AIDS Research.

including data elements and method of transfer.	secure methods, such as SFTP. These methods can also align with multi-jurisdictional cluster investigation efforts. Also, the HPSP is working with the University of California, San Diego, and San Diego Center for AIDS Research to develop a western regional multi-jurisdictional agreement and dashboard to cross analyze data elements.	

SECTION 3: Detecting and describing HIV clusters and outbreaks

I. Time-space cluster detection

Describe your protocol and methods for identifying time-space clusters. If you have a protocol or standard operating procedure (SOP) for this activity, please attach as an appendix and provide a narrative overview here.

Question/Activity	Response/Plan	Responsible Party
a) If the CDC-provided SAS program is used for time-space cluster detection, please note that. If another approach is used, your protocol should include a description of SAS programs or other analytic tools used, specific parameters for defining a "baseline" for comparison and relevant increases and data sources used.	Utilizing the CDC provided SAS program, time-space analysis of the state and each county is conducted monthly by the Nevada HPSP HIV Surveillance Epidemiologist	Nevada HPSP HIV Surveillance Epidemiologist with oversight provided by Nevada HPSP manager
b) Address geographic levels of analysis (e.g., counties, MSAs, regions), frequency of analysis, personnel involved, and process for assessing and improving quality of the analyses.	The HPSP and LHAs perform county-level and rural area analysis annually to assist with identifying locations of new infections and ensuring necessary resources are available to address new infections. Also, a quarterly review of Moving Average Charts (MAC) is performed to identify any potential infection increases.	Nevada HPSP HIV Surveillance Epidemiologist, Nevada HPSP manager, SNHD Senior Epidemiologist, WCHD, and CCHHS EDM

II. Molecular cluster detection

Document your protocol for identifying molecular clusters. If you have a protocol or SOP for this activity, please attach as an appendix and provide a narrative overview here.

Question/Activity	Response/Plan	Responsible Party
a) State the program used for analysis, frequency of analysis, and staff involved.	Nevada does not currently analyze sequence data as a result of incomplete sequencing data. Although Nevada has collected HIV genotype sequences since	Nevada HPSP HIV Surveillance Epidemiologist with oversight provided by Nevada HPSP manager

	2018, sequence completeness has never been appropriately entered into the surveillance database until 2022. As of July 2022, Nevada's HIV Surveillance Epidemiologist has conducted monthly time-space analysis of surveillance data to monitor possible outbreaks. The Nevada HPSP has coordinated with the jurisdiction's assigned CDC molecular epidemiologist to review methods to move forward with sequence analysis, such as assessing genotype completeness before seeking participation within Secure HIV Trace. As of December 2022, 65% of Nevada's new HIV diagnoses have complete genotype sequencing. HPSP staff will work with the CDC molecular epidemiologist to initiate Secure-HIV Trace participation. The HIV Surveillance Epidemiologist plans to perform a monthly molecular-sequence based analysis through Secure-HIV Trace to detect clusters and outbreaks based upon analyzable sequences within the past 3 years at a 0.5% genetic threshold.	
b) Also indicate the status of nucleotide sequence reporting via electronic lab reporting (ELR) in your jurisdiction, including timeliness and completeness of these data and your process for identifying gaps and making improvements.	Within Nevada, ELR reports nucleotide sequences after lab analysis, typically available within two months of specimen collection. Sequencing data is auto-imported entered into eHARS by Nevada HPSP staff, and Nevada will initiate participation with Secure-HIV Trace in 2023 to analyze molecular sequences. HPSP closely works with the CDC, LHAs, and labs	Nevada HPSP HIV Surveillance Epidemiologist with oversight provided by Nevada HPSP manager

	to assess timeliness and completeness of nucleotide sequence data.	
c) If partnering with an outside agency to analyze molecular data, describe the collaboration including names and roles of parties involved and DSAs in place.	Nevada HPSP anticipates using Secure-HIV Trace in 2023 and will update this plan accordingly with details of names, roles, and DSAs involved.	Nevada HPSP HIV Surveillance Epidemiologist with oversight provided by Nevada HPSP manager

III. Other cluster detection methods

For DIS, healthcare providers, or others who might identify clusters, explain the flow of information to appropriate staff within the health department, including names/roles of these staff.

Response/Plan	Responsible Party
Cluster detections are identified by Nevada HPSP and LHAs through HIV case surveillance data, HIV partner services and contact investigations, and staff observations. In addition to cluster detection discussions during the quarterly meetings, each LHA conducts weekly (or more frequently, if needed) internal meetings between managers, DIS, prevention, and surveillance staff to address any identified clusters, testing outreach activities, or prevention interventions.	Nevada HPSP staff, SNHD Senior Epidemiologist, SNHD HIV Prevention staff, SNHD DIIS, WCHD Health Educator Coordinator, WCHD Public Health Nursing Supervisor, WCHD Public Health Investigators, CCHHS EDM, and CCHHS Public Health Investigator

IV. Reviewing relevant cluster data

In addition to time-space and molecular data elements, list other data elements and data sources used to understand and interpret the findings of cluster analysis (e.g., CAREWare, partner services data, evidence of STI or HCV co-infection).

Question/Activity	Response/Plan	Responsible Party
a) Document your process for merging and storing data from different sources and tools for visualizing the data in reports. Identify who is responsible for generating, reviewing, and sharing these reports.	For any activities with storing data, Nevada's data security and confidentiality protocols are followed with all relevant parties completing training on an annual basis and accessing data on a "need-to-know" basis. On a monthly basis, Nevada	Nevada HPSP, Nevada Office of Analytics, SNHD, WCHD Health Educator Coordinator, and CCHHS EDM

	Office of Analytics reviews and merges stored data from various programs, such as eHARS, CAREWare, partner services data, evidence of STI or HCV co-infection, etc. Data is linked and merged based upon software such as LinkPlus. The output of any merged data is peer-reviewed internally within the Office of Analytics and stored on the secure network drive aligned with Nevada IT protocols. In the event results are visualized and shared, Nevada's suppression criteria applies, and information is reviewed by the PIO. The Nevada Office of Analytics works closely with the HPSP and LHAs to review and share this data.	

SECTION 4: Review and prioritization of HIV clusters and outbreaks

I. Process for review and prioritization
Document how you convene key stakeholders in your agency (e.g., HIV surveillance, prevention, care, STI, and program leadership) to review, discuss, and prioritize follow-up actions for clusters and outbreaks.

Question/Activity	Response/Plan	Responsible Party
a) Identify who participates in this activity and include the frequency of meeting and roles and responsibilities. Attach any written agreements (e.g., protocols, SOPs, or charters), if applicable.	The quarterly meetings held by HPSP includes participation from the LHAs (SNHD, WCHD, and CCHHS) and is facilitated by the Nevada HIV Surveillance Epidemiologist. Meetings may be held more frequently in the event there is elevated case reporting exceeding the norm indicated by sources such as the MACs. The calculations for determining the baseline estimate and upper control limits are detailed in depth within SNHD's Outbreak Response Plan in Appendix C. Outbreak is defined within NAC441A.130 in which "the occurrence of cases in a community, geographic region, or particular population at a rate in excess of that which is normally expected in that community, geographic region, or particular population." Outside of meetings with identification of clusters, the following identifies associated roles and responsibilities: CDM/Coordinator/EDM confirms the need for response and communicates with Health District Leadership and community partners to inform. CDS/Coordinator/EDM	Nevada HPSP staff, SNHD CDM, SNHD CDS, SNHD Surveillance Supervisor, SNHD Epidemiologist Supervisor, SNHD Senior Epidemiologist, WCHD Health Educator Coordinator, WCHD Public Health Nursing Supervisor, WCHD Public Health Investigators, and CCHHS EDM

	collaborates with community partners and internal staff to implement response plan procedures and communicates outcomes to outbreak response working groups and disseminates information or changes to the response groups. Surveillance Supervisor/Coordinator/EDM ensures priority of entry and accuracy of data for analysis while communicating any reporting or data quality issues to the Senior Epidemiologist for further review. Epidemiologist Supervisor/Nevada HIV Surveillance Epidemiologist provides guidance and oversight to the Senior Epidemiologist and validates methodology. Senior Epidemiologist/Nevada HIV Surveillance Epidemiologist identifies and verifies suspected outbreaks and confirms validity of information; guides the outbreak response plan by identifying key demographics risks; creates the outbreak case definition; communicates with leadership for best approach to respond; makes recommendations; and provides continuous data to determine next steps.	
b) Describe how new and previously identified clusters are reviewed during and between meetings, including relevant reports used for this purpose.	During meetings, the Nevada HIV Surveillance Epidemiologist will initiate a review of the results from monthly time-space analyses performed since the last meeting (within the previous quarter) and any results from Secure HIV Trace monthly molecular analyses using CDC priority cluster criteria or CDC time-space alerts. Any new or previously identified clusters	Nevada HPSP staff, SNHD CDM, SNHD CDS, SNHD Surveillance Supervisor, SNHD Epidemiologist Supervisor, SNHD Senior Epidemiologist, WCHD Health Educator Coordinator, WCHD Public Health Nursing Supervisor, WCHD Public Health Investigators, and CCHHS EDM

	are captured within a spreadsheet maintained on the limited access, secure network Nevada system. Each cluster will have an update provided by the respective LHA regarding status, size, and activity level. Additional decision-making activities will be dependent on cluster level size and if escalated response or external resources are needed. Meeting minutes will be disseminated to members of the workgroup with summary level information (i.e., total number of clusters within last 24 months, number of open versus closed cluster, number of clusters per responsible health authority, etc.). Attempts are made to interview all HIV-positive confirmed cases and their contacts. All identified clusters, suspects, and associates are interviewed and offered HIV testing. Investigation staff are trained to communicate potential cluster outbreaks to local health jurisdiction management and the state. Epidemiologists will analyze the data by demographics to identify any increases in certain populations such as, age, race, risk groups, and zip codes that may need additional intervention strategies.	
c) Include a description of how clusters are named and how you determine who is in the	Clusters are named through identification of increased diagnoses with HIV case	Nevada HPSP staff, SNHD CDM, SNHD CDS, SNHD Surveillance Supervisor, SNHD

cluster (using a case definition or other criteria).	surveillance data (such as time-space analysis), partner services investigation, and community member or staff observations. Determining who is within a cluster is based upon DIS interviews, asking clients who in their social networks engage in high-risk behaviors that may put them at risk. DIS will also ask clients to identify sex partners and those sex partners will be asked who they are having sex with to initiate testing opportunities. Naming conventions for Cluster Outbreaks for SNHD are typically created based on identification year, and then consecutive numbering. Testing sites are provided a unique site ID to identify and query testing efforts, such as with SNHD's utilization of iCircle, and electronic testing system.	Epidemiologist Supervisor, SNHD Senior Epidemiologist, SNHD Senior DIIS, SNHD DIIS, WCHD Health Educator Coordinator, WCHD Public Health Nursing Supervisor, WCHD Public Health Investigators, CCHHS EDM, and CCHHS Public Health Investigator
d) Indicate how and when findings and decisions from the group are shared with agency leadership.	Epidemiological profiles are completed annually with the data reviewed by epidemiologists to assess for data anomalies to be immediately reported to LHA and the state. Monthly and quarterly MACs are also produced to detect statistical aberrations. Whenever it becomes epidemiologically evident HIV is being reported above the quarter Upper Control Limit (UCL), LHA will notify the Nevada HPSP Manager within 72 hours of identifying an increase in occurrences, including all facts concerning outbreak, and measures taken to abate and prevent its spread. Information to be reported will include:	Nevada HPSP staff, SNHD CDM, SNHD CDS, SNHD Surveillance Supervisor, SNHD Epidemiologist Supervisor, SNHD Senior Epidemiologist, WCHD Health Educator Coordinator, WCHD Public Health Nursing Supervisor, WCHD Public Health Investigators, and CCHHS EDM

	1. Geographic location of the suspected outbreak 2. Disease suspected in outbreak 3. Number of suspected/identified cases 4. Dates that suggest a suspected outbreak 5. Control measures implemented 6. Other pertinent info about the outbreak Subsequent updates are provided on an adhoc basis based on new information as well as at the discretion or request of leadership.	

II. Prioritization of clusters

Explain the prioritization scheme used to classify level of concern and need for follow up, including key criteria related to priority populations, geography, rate of growth, viral suppression, co- infections, or other key factors in your jurisdiction. Attach relevant charts, grids, or other schemes that address this.

Question/Activity	Response/Plan	Responsible Party
The prioritization of a cluster begins with the determination of whether investigation is warranted as indicated by the magnitude of increase in diagnoses above the thresholds and the population involved. The prioritization scheme involves low (no additional investigation activities needed), medium (additional information about cluster is needed), and high (additional response is needed). Key prioritization criteria classifying the level of concern includes: • Population vulnerability (Underserved or high potential for poor outcomes) • Evidence within diagnoses reflecting recent HIV infection, such as Stage 0 infections, acute infections, self-reported history of negative HIV test, coinfections with other STIs, or high initial viral loads		Nevada HPSP, SNHD CDM, SNHD CDS, SNHD Surveillance Supervisor, SNHD Epidemiologist Supervisor, SNHD Senior Epidemiologist, WCHD Health Educator Coordinator, WCHD Public Health Nursing Supervisor, WCHD Public Health Investigators, and CCHHS EDM

• Assessment of alternative explanations, such as increased testing events or testing accessibility, population changes, policy changes, data quality issues, or previous case diagnosis (out of jurisdiction) • Geographic area and potential issues (access to care barriers, transportation barriers, limited resources) • Common facilities of diagnosis • Cluster member viral suppression versus detectable viral loads • Linkage to care or care status among cluster members • Completion of interviews through partner services Once participating with Secure-HIV Trace, Nevada also plans to follow national priority criteria of at least 5 cases in a cluster were diagnosed in the most recent 12-month period that meet a 0.5% genetic distance threshold from the most recent 3-years of data.	

III. Tracking and managing clusters

Explain how clusters are tracked over time, including system for organizing notes, minutes, and/or data on decisions made about the cluster. Describe how you classify the status of clusters (e.g., opened, remains open, closed) and track these lists over time.

Question/Activity	Response/Plan	Responsible Party
During the quarterly held meetings, a standing agenda item includes assessment of recent or ongoing clusters and associated actions addressing the cluster. When LHAs deem an investigation is warranted, the CDC developed Cluster Investigation Worksheet is utilized and maintained by the LHA and forwarded to Nevada HPSP for continuous monitoring of all ongoing investigations. Nevada HPSP will utilize an excel spreadsheet to track cluster and investigation status which will be maintained on the secure network. The status of clusters and whether activities should remain ongoing or if the cluster response should be closed is based upon: • Transmission being interrupted with no or few recent diagnoses within 9 months • National priority cluster criteria no longer being met for a 12-month period • Linkage to care for persons without initial evidence of viral suppression • Testing, re-testing, and referral for PrEP among persons within risk network		Nevada HPSP staff, SNHD Epidemiologist Supervisor, SNHD Senior Epidemiologist, SNHD CDM, SNHD CDS, SNHD Surveillance Supervisor, WCHD Health Educator Coordinator, WCHD Public Health Nursing Supervisor, WCHD Public Health Investigators, and CCHHS EDM

• Identification of any new diagnoses through active investigation and intervention activities • Determination of whether more testing is warranted based on rate of new diagnoses arising from cluster-focused testing activities The documentation of notes, minutes, and data on decisions by the workgroup will be stored on the state secure network drive and organized by meeting date.	

IV. Closing out clusters
Describe your process for closing out clusters, and for continued monitoring after closeout.

Question/Activity	Response/Plan	Responsible Party
An investigation will be considered complete once all reachable cases have been tested (or re-tested) and treated without increases in HIV diagnoses for the population identified. Clusters may also be closed when the quarterly count of HIV diagnoses drops to the expected level as indicated within the outbreak sensor report. The Nevada HPSP Manager will submit a scientifically formatted written state program report at the end of the outbreak which will include the status of identified clusters (i.e., size, cluster member viral suppression and care status, and open/closed status). The LHA staff will use the state program report for response evaluation and continue to monitor the program standards with quarterly analysis.		Nevada HPSP staff, SNHD Epidemiologist Supervisor, SNHD Senior Epidemiologist, SNHD CDM, SNHD CDS, SNHD Surveillance Supervisor, WCHD Health Educator Coordinator, WCHD Public Health Nursing Supervisor, WCHD Public Health Investigators, CCHHS EDM, and CCHHS Public Health Investigator

SECTION 5: Designing and implementing cluster response plans

I. Action planning process
Describe how key stakeholders work together to decide follow-up actions for a cluster after reviewing available data and determining the level of priority.

Question/Activity	Response/Plan	Responsible Party
a) Indicate who is involved in this planning (including staff from other agencies when appropriate) and when and how key groups or individuals meet. Specify roles and responsibilities and indicate how responsibility is assigned to ensure successful implementation of an action plan. Describe how follow up on the progress of cluster response activities is included in routine meetings.	Multiple opportunities exist for identification of a transmission cluster through weekly internal LHA meetings, monthly time-space analysis or molecular sequence analysis initiated by the HIV Surveillance Epidemiologist, or the quarterly meetings held by HPSP. Coordination between Nevada's HPSP and LHAs occurs to review this existing plan and use criteria identified with Section 4.2 to determine level of priority. LHAs also review their own internal outbreak response plans (see Appendix C). For any on-going cluster responses, HPSP cluster excel spreadsheet and any open Cluster Investigation Worksheets are reviewed during the quarterly held HPSP meeting and used to update all participants on current cluster status. These worksheets also serve as a guide for response activities, to include determinations of whether enhanced investigation and intervention activities are needed.	Nevada HPSP staff, SNHD Epidemiologist Supervisor, SNHD Senior Epidemiologist, SNHD CDM, SNHD CDS, SNHD Surveillance Supervisor, WCHD Health Educator Coordinator, WCHD Public Health Nursing Supervisor, WCHD Public Health Investigators, and CCHHS EDM

	Responsibilities vary based on cluster/outbreak location, but the action planning process encompasses the following: CDM/Coordinator/EDM confirms the need for response and communicates with Health District Leadership and community partners to inform. CDS/Coordinator/EDM collaborates with community partners and internal staff to implement response plan procedures and communicates outcomes to outbreak response working groups and disseminates information or changes to the response groups. Surveillance Supervisor/Coordinator/EDM ensures priority of entry and accuracy of data for analysis while communicating any reporting or data quality issues to the Senior Epidemiologist for further review. Epidemiologist Supervisor/Nevada HIV Surveillance Epidemiologist provides guidance and oversight to the Senior Epidemiologist and validates methodology. Senior Epidemiologist/Nevada HIV Surveillance Epidemiologist identifies and verifies suspected outbreaks and confirms validity of information; guides the outbreak response plan by identifying key demographics risks; creates the outbreak case definition; communicates with leadership for best approach to respond; makes recommendations; and provides continuous data to determine next steps.	

II. Data to guide cluster response **Describe how your agency will ensure that cluster action plans are guided by epidemiologic data and updated as new information becomes available.**		
Question/Activity	**Response/Plan**	**Responsible Party**
a) Outline the process for critical, ongoing assessment of cluster data, with collection of additional data, as appropriate.	Once a cluster is identified, HIV surveillance data and data from STD and HIV partner services investigations identifies transmission cluster and risk network details. The level of concern is established with determination of whether enhanced investigation or intervention activities are needed. In addition to those persons identified through molecular analysis, Critical interventions striving to initiate strategies for viral suppression and testing and re-testing activities from the primary LHA may be necessary to include those persons with diagnosed HIV infection without a sequence available for analysis and persons with undiagnosed infection. Case interviews and key data is collected for analysis by DIIS while the DDCS will enter additional reported data. The epidemiologist (LHA and/or Nevada HPSP HIV surveillance epidemiologist) will analyze data and disseminate findings to leadership and key stakeholders. Through monitoring of the cluster response, additional data and investigation activities may be warranted. Molecular clusters may expand beyond the defined	Nevada HPSP staff, SNHD Epidemiologist Supervisor, SNHD Senior Epidemiologist, SNHD DIIS, SNHD DDCS, WCHD, and CCHHS

	0.5% genetic distance threshold within a 3-year period to include named partners with sequences that are not closely related to such as all persons at 0.5% genetic distance threshold across all years or all persons directly connected to a person in the 0.5% cluster a 1.5% genetic distance threshold.	
b) Describe investigation approaches that may be considered when needed, such as qualitative interviews with providers or clients, medical chart abstraction, enhanced interview tools, or special studies.	The LHA and/or state DCS conducts interviews with diagnosed clients and their partners to obtain information around their risks, places they meet partners, and conduct cluster interviews to see who else may be engaging in high-risk behavior or having sex with the same partners. In the data collection and entry process, the interview information is entered into required fields and case notes. In addition, chart reviews are conducted to identify information gaps or withheld information, potentially leading to identifying additional clusters. To compile comprehensive information for all persons in a transmission cluster and risk network, other data sources to review include STD surveillance data, viral hepatitis surveillance data, Ryan White HIV/AIDS program data, primary care services, ER visits, substance abuse and mental health services databases, homeless outreach and services databases, and jail or detention databases.	Nevada HPSP staff, SNHD CDM, SNHD CDS, SNHD Surveillance Supervisor, SNHD Epidemiologist Supervisor, SNHD Senior Epidemiologist, SNHD Senior DIIS, SNHD DIIS, SNHD Disease Data Collection Specialists (DDCS), WCHD Health Educator Coordinator, WCHD Public Health Nursing Supervisor, WCHD Public Health Investigators, CCHHS EDM, and CCHHS Public Health Investigator

III. Directing/re-directing routine program activities for cluster response **Explain how existing HIV prevention and care processes can be focused to support cluster response and any special considerations for including them in a cluster action plan. List existing or planned partnerships with agencies in your jurisdiction who can provide each of these services when needed.**		
Question/Activity	**Response/Plan**	**Responsible Party**
a) Partner services: Indicate how partner services follow up for cluster members, partners, and associates is prioritized, and if/how re-opening cases or re-interviewing cases is considered. Attach protocols, if applicable, including protocols for contact tracing through social media applications.	Partner services are offered to all clients and their partners. Identified persons within clusters are followed up for additional HIV/STI testing, PrEP referral, syringe exchange resources, or other ancillary services as needed. DIIS Conduct investigations of named clusters, with the same criteria for locating as with all partners. Partners named in clusters are initiated, even if previously diagnosed, to offer referrals to care and services. Phone and field efforts are made to reach partners in clusters. As cluster/outbreak circumstances vary, the cut-off threshold will be determined at the time of outbreak identification. Re-interviewing HIV cases is not a requirement; however, if information is suspected of having been withheld or no partners/clusters were named during the original interview, a follow up interview is conducted to obtain more information. Additional intervention points may be cleaned from interview notes, such as sex partner recruitment venues (i.e., sex clubs,	Nevada HPSP, SNHD DIIS- WCHD Health Educator Coordinator, WCHD Public Health Nursing Supervisor, WCHD Public Health Investigators, CCHHS EDM, CCHHS Public Health Investigator

	bath houses, brothels), needle-sharing locations, specific risks (i.e., drug use, gang affiliation, incarceration history, etc.).	
b) HIV care interventions: Document how cluster members are linked or re-linked to care using routine or special follow-up procedures for case management and partnership with healthcare providers. Describe interventions you might implement to improve retention in care or viral suppression.	Clusters identified as new or previous diagnosis are offered linkage to care services. Detection of diagnosis can be through diagnostic testing, provider report, or self-report. Linkage to care includes connecting to a specialty provider for their HIV care or other social, mental, or behavioral service needs. LHAs also make efforts to review eHARS, agency electronic medical record (EMR), CAREWare, and local hospital EMRs to glean information about the HIV care status of the cluster members. Those who are found to be out of care are contacted to re-link into care. Barriers to linkage and retention are elicited from the case to determine a plan of action to link and retain the person into HIV care.	Nevada HPSP staff, SNHD DIIS, WCHD Health Educator Coordinator, WCHD Public Health Nursing Supervisor, WCHD Public Health Investigators, CCHHS EDM, and CCHHS Public Health Investigator
c) HIV testing and PrEP: Describe options for reaching and communicating to people identified as high-risk for HIV based on your knowledge of the cluster. This includes strategies to provide testing and PrEP to high-risk partners/associates (e.g., street-based outreach, social network strategies, outreach via clinical partners or CBOs, HIV self-tests), sub-groups (e.g., venue-based testing, testing events, adding testing/PrEP services in targeted clinical settings), or	Data collected through zip codes will drive the community response for HIV prevention activities. Once locations or venues are identified, the local health jurisdiction will reach out to community partners to offer its services, including capacity building assistance on PrEP, training PrEP Navigators, and academic detailing. LHAs also refer high risk negative clients	Nevada HPSP staff, SNHD DIIS, SNHD PrEP Linkage Navigators, WCHD Health Educator Coordinator, WCHD Public Health Investigators, and CCHHS EDM

populations (e.g., expanding testing/PrEP in clinics, hospitals, CBOs).	who tested at HIV testing venues to PrEP navigators. PrEP navigators will follow up with these clients to link to PrEP care. Also, an emphasis is placed on partners identified in clusters for follow up testing and linkage to PrEP services, Syringe Service Programs (SSPs), and other applicable prevention interventions. As clusters are identified, venues common to the cluster population will be engaged to promote HIV/STI testing.	
d) Harm reduction: Explain options for improving or expanding harm reduction services, including syringe services and linkage to behavioral health, in responding to a cluster.	LHAs have expanded their bandwidth to include Public Health Educators and Outreach workers (DIIS) who have direct access to rural and suburban communities. Their primary role is to address HARM reduction in communities where readiness is lacking. They have developed programing and training for community partners, DIIS, and Social Workers who address needs such as overdose through mobile efforts to address substance treatment, medical, and mental health. Vending access is also the way that the state has expended SSPs. While clean needles are not allowed to be purchased through federal monies, the state and the locals work with SSPs to offer syringe services, condoms or other safe sex supplies, wound care, naloxone, and linkage to behavioral/mental health and treatment.	Nevada HPSP staff, SNHD CDM, SNHD CDS, SNHD Surveillance Supervisor, SNHD Epidemiologist Supervisor, SNHD Senior Epidemiologist, SNHD Senior DIIS, SNHD Health Educators, SNHD DIIS and DIIS with Social Work backgrounds, WCHD Health Educator Coordinator, WCHD Public Health Investigators, and CCHHS EDM
e) Social services: Identify options for expediting linkage to key social services (e.g.,	Nevada will continue to update healthcare providers on identifying needs for services	Nevada HPSP staff, SNHD CDM, SNHD CDS, SNHD Surveillance Supervisor, SNHD

mental health, substance use disorders, or housing) as part of a cluster response.	by providing Substance Use Brief Intervention and Referral to Treatment (SBIRT) training in settings such as ERs, hospitals, and urgent care or primary care providers. This training highlights the need to have a referral process established ahead of implementing SBIRT to ensure preparation when a need is identified. During a cluster response, all involved persons and contacts are asked about substance use, including which substances are used, method of use, and history of use. Referrals for outpatient services, detox and treatment facilities are provided as appropriate with the individual client.	Epidemiologist Supervisor, SNHD Senior Epidemiologist, SNHD Senior DIIS, SNHD Health Educators, SNHD DIIS and DIIS with Social Work backgrounds, WCHD Health Educator Coordinator, WCHD Public Health Investigators, CCHHS EDM, CCHHS Public Health Investigator

IV. Options for enhanced interventions

List potential interventions you might consider to target specific gaps in your investigation and response efforts, including potential partners needed. Examples include large recruitment campaigns with incentives or special studies to collect additional qualitative or quantitative data to guide the response.

Question/Activity	Response/Plan	Responsible Party
Enhanced intervention to target specific gaps in investigation and response efforts begins with linking all persons in the transmission cluster to care and started on antiretroviral therapy. HIV testing and PrEP referral are conducted for all persons within the risk network. Targeted outreach at identified venues for testing may be used for clusters associated with a particular physical venue. For anonymous partners, or frequently mentioned internet sites and apps, LHAs may utilize social media to identify and contact individuals involved in an investigation based on obtained screen names or handles. Information about social networks, contacts with individuals who have already been in contact with the health district, workplaces, and social outlets are gathered during investigations.		Nevada HPSP staff, SNHD CDM, SNHD CDS, SNHD Surveillance Supervisor, SNHD Epidemiologist Supervisor, SNHD Senior Epidemiologist, SNHD Senior DIIS, SNHD DIIS, WCHD Health Educator Coordinator, WCHD Public Health Investigators, CCHHS EDM, and CCHHS Public Health Investigator

Contact is made through social media if phone or text contact has not been successful. Social media, app, and website use to find sexual partners is a standard question asked during partner service interviews. There is also the possibility of mass communication with internet partner notification to promote testing and PrEP referral.	

V. Communication planning

Provide a description of your plan to develop messages and communicate proactively with key audiences about clusters during the response. This should include procedures/protocols for notifying CDC project officers, local health departments, the media, and the public, as needed. Your plan should also include how you will develop and disseminate HIV prevention messages (e.g., social media, health alerts, media engagement) to the general public and to high-risk groups.

Response/Plan	Responsible Party
Any communication with the public is reviewed internally first by the state and LHA PIOs, then shared with administrative leadership and CDC Monitoring Team. The PIOs are consulted to determine best media outlets and disseminated accordingly. Public communication is coordinated with LHA leadership of impacted divisions and program staff. Information is also disseminated through provider targeted newsletters, such as Epi-News, to serve as education and can be utilized to convey urgent messages to providers. Communication is also focused on providing regular and routine updates (at least monthly) to key stakeholders (LHAs, surveillance and prevention staff, health department legal counsels, CBOs, HPPGs, providers, at-risk populations, media, etc.). Sites such as the CDC's Let's Stop HIV Together can be utilized to gather materials for implementation, such as scripts for media or television promotion, graphics, or pamphlets.	Nevada HPSP staff, SNHD CDM, SNHD CDS, SNHD Office of Communications, WCHD Health Educator Coordinator, WCHD Public Health Nursing Supervisor, WCHD Public Health Investigators, WCHD Communications Manager, WCHD Epidemiology Program Manager, WCHD EPHP Division Director, WCHD CCHS Division Director, and CCHHS EDM

SECTION 6: Implementing an escalated response

I. Initiating an escalated response
Describe your threshold or criteria for activating an escalated response and your protocol for initiating and implementing the new response approach or structure.

Question/Activity	Response/Plan	Responsible Party
a) Indicate who is responsible for determining an escalated response is needed and making the decision to proceed.	Cluster detection and outbreak response activities are dependent on staff capacity to manage the investigation. STD DIS and Epidemiology program staff may be engaged to assist as determined. During the quarterly held HPSP meetings with LHAs as participants, best practices are determined based upon what response activities are needed (depending on level of concern and resources available). The initiation of an escalated response is dependent upon the findings and the ability of the local jurisdiction to manage the outbreak. For rural areas, the Nevada state DCS can coordinate with LHAs to assist in cluster response activities. The determination of whether an escalated response is necessary is a collaborative effort between LHA epidemiologist, communicable disease manager, surveillance supervisor, and leadership.	Nevada HPSP staff, Nevada state DCS, SNHD CDM, SNHD CDS, SNHD Surveillance Supervisor, SNHD Senior Epidemiologist, WCHD Health Educator Coordinator, WCHD Public Health Nursing Supervisor, WCHD Public Health Investigators, WCHD Epidemiology Program Manager, WCHD EPHP Division Director, WCHD CCHS Division Director, WCHD Health Officer, and CCHHS EDM

II. Escalated response options **You might have multiple options for an escalated response (e.g., emergency activation within your HIV program, Incident Command Structure at agency level, etc.). Explain how each of these options is initiated, how oversight is handled, and what components are included.**		
Question/Activity	**Response/Plan**	**Responsible Party**
a) Address components needed for each option, including surge staff capacity, enhanced communication support, and need for supplemental funding.	Nevada utilizes the FEMA ICS standardized hierarchal structure to manage outbreaks and address an escalated response as is further detailed in local jurisdiction outbreak response plan (see Appendix C). This structure allows for expansion and contraction of resources dependent on the investigation. A cooperative response by multiple agencies, both within and outside of government, may assist with organizing and coordinating response activities without compromising the decision-making authority of local command. Escalated responses can be tailored to the region's efforts, such as SNHD providing just in time training for internal and external key partners. This also includes cross-trained DIIS to provide support for outbreak efforts to include interviewing, testing, and referral networks.	Nevada HPSP staff, SNHD CDM, SNHD CDS, SNHD Surveillance Supervisor, SNHD Senior Epidemiologist, SNHD Public Health Preparedness Manager, SNHD Senior DIIS, SNHD DIIS, WCHD Health Educator Coordinator, WCHD Public Health Nursing Supervisor, WCHD Public Health Investigators, WCHD Epidemiology Program Manager, WCHD EPHP Division Director, WCHD CCHS Division Director, WCHD Health Officer, and CCHHS EDM
b) Address how supplemental funding might be allocated, or existing funds might be re-distributed, if necessary.	Nevada HPSP does not currently receive supplemental funding; however, the Statewide Emergency Management Program Strategic Plan may warrant additional emergency funding if approved by IFC. If LHA resources become exhausted or unavailable, state resources may also be requested to assist with staff surge	Nevada HPSP staff

	capacity.	
c) Specify how deactivation and transition back to routine program oversight is handled.	Once an outbreak response has been ameliorated, staff will resume normal duties. Continued monitoring and updates to the response team will be a routine task performed by Nevada HPSP HIV surveillance epidemiologist and SNHD Senior to assist supervisors with workload management and demobilization of surge staff.	Nevada HPSP staff and SNHD Senior Epidemiologist

III.	**Communicating during an escalated response** **Document the chain of communication within your agency during an escalated response, and how you will develop key messages, identify all key audiences, and ensure proactive communication practices.**	
Question/Activity	**Response/Plan**	**Responsible Party**
a) If you have developed communication plans for use in a large HIV cluster or outbreak response, describe and/or attach your plan.	State and local government must follow internal communication plans, which would include utilizing agency PIOs to address outbreak response strategies and to keep the public informed via a Joint Information Center (JIC) scaled as needed for the response, whether at the LHA level or at the state level. This includes the Health Advisory Network (HAN) system to provide regular updates to the community throughout an outbreak response. Nevada also has a statewide technical bulletin and LHAs may have internal publications, such as Epi News in WCHD. Any identified cluster results in review to	Nevada HPSP staff, SNHD CDM, SNHD CDS, SNHD Public Information Manager, SNHD Office of Communications Director, SNHD Surveillance Supervisor, SNHD Senior Epidemiologist, SNHD Public Health Preparedness Manager, SNHD Senior DIIS, SNHD DIIS, WCHD Health Educator Coordinator, WCHD Public Health Nursing Supervisor, WCHD Public Health Investigators, WCHD Epidemiology Program Manager, WCHD EPHP Division Director, WCHD CCHS Division Director, WCHD Health Officer, CCHHS EDM

	determine if there is a need for an ICS structured event with escalated communications based upon the level of outbreak (local versus statewide). Non-outbreak level clusters would be monitored and reported upon via the cluster report forms to the CDC. Communications with the public would be tailored based upon audience (i.e., providers versus community) and disseminated via PIOs through media outlets for the general community.	
b) Address communication planning with local partners and neighboring jurisdictions where applicable.	State and local government must follow internal communication plans, which would include utilizing agency PIOs to address outbreak response strategies and to keep the public informed. Health Advisory Network (HAN) system is a statewide system capable of providing regular updates to the community throughout an outbreak response	Nevada HPSP staff, SNHD CDM, SNHD CDS, SNHD Public Information Manager, SNHD Office of Communications Director, SNHD Surveillance Supervisor, SNHD Senior Epidemiologist, SNHD Public Health Preparedness Manager, SNHD Senior DIIS, SNHD DIIS, WCHD Health Educator Coordinator, WCHD Public Health Nursing Supervisor, WCHD Public Health Investigators, WCHD Epidemiology Program Manager, WCHD EPHP Division Director, WCHD CCHS Division Director, WCHD Health Officer, and CCHHS DPCM
c) Explain your plan to notify and/or collaborate with CDC or other federal partners in an escalated response.	Should an outbreak occur, Nevada HPSP will immediately notify the CDC Joint Monitoring Team. The state and LHAs will collaborate with CDC or other federal agencies to address issues surrounding an outbreak.	Nevada HPSP staff, SNHD Administration, SNHD CDM, SNHD CDS, SNHD Office of Communications Director, SNHD Surveillance Supervisor, SNHD Senior Epidemiologist, SNHD Public Health Preparedness Manager, WCHD Health Educator Coordinator, WCHD Public Health Nursing Supervisor, WCHD Public Health Investigators, WCHD Epidemiology Program Manager, WCHD EPHP

		Division Director, WCHD CCHS Division Director, WCHD Health Officer, CCHHS EDM

IV. Staff training for escalated response **Describe your training plan for all staff involved in an escalated response, to ensure smooth and effective collaboration.**		
Question/Activity	**Response/Plan**	**Responsible Party**
a) For HIV program staff, provide a list of required and optional training in outbreak response, incident command, or other relevant topics.	All staff must complete annual HIPAA and Confidentiality Awareness training, Data Security and Confidentiality training, and Information Systems Security Awareness training. All staff must also complete FEMA Incident Command training and Partner Services training upon hire. In some regions, such as rural areas and CCHHS, public health investigators or DCS are automatically cross trained among all programs. In larger LHAs, such as SNHD and WCHD, DIIS are all crossed trained in HIV. There is an integrated system ensuring DIIS are not only trained on multiple interventions, but they are also cross trained on diseases. There is also a dedicated DIIS Trainer in SNHD to assess surge staff's existing knowledge to determine appropriate just in time training needs prior to staff working on cluster/outbreak cases. Outbreak response contingency funding may allow the flexibility to hire and train staff on that exact response, such as HIV cluster detection and outbreak response.	Nevada HPSP staff, SNHD Administration, SNHD CDM, SNHD CDS, SNHD Surveillance Supervisor, SNHD Senior Epidemiologist, SNHD Office of Communications Director, SNHD Public Health Preparedness Manager, WCHD Health Educator Coordinator, WCHD Public Health Nursing Supervisor, WCHD Epidemiology Program Manager, WCHD EPHP Division Director, WCHD CCHS Division Director, WCHD Health Officer, and CCHHS EDM, SNHD DIIS Trainer

	While these staff may not be DIIS, they can be paired with more experienced staff who can then help train them of the exact intervention to help identify and control disease transmission.	
b) For non-HIV program staff who provide surge capacity, indicate your plan to provide training in data security and confidentiality, HIV, stigma, cultural competence, or other relevant topics.	LHAs such as WCHD provide integrated training within HIV, STD, and Family Planning subprograms. Training is automatically provided to all program staff except for Partner Services training which is only available to STD DIS and HIV DIS/Public Health Investigators.	WCHD Health Educator Coordinator, WCHD Public Health Nursing Supervisor, WCHD, and CCHS Division Director

SECTION 7: Monitoring and evaluation of cluster response activities

I. Monitoring a cluster or outbreak response
Describe data elements and data management, analysis, and/or reporting tools used to monitor the status and the impact of interventions in a cluster or outbreak response.

Question/Activity	Response/Plan	Responsible Party
a) Address how outcomes of cluster response activities required under PS18-1802 will be tracked and reported, including linkage to care, viral suppression, HIV testing and retesting, and referral to PrEP.	Depending upon where the outbreak occurs, the state will coordinate the outbreak response with state DCS and LHA when needed. Additionally, the state has agreements with SNHD and WCHD to assist in the event of an outbreak in rural Nevada given that there are no health departments in the rural areas of Nevada. An outbreak response will include the normal strategies of providing partner services, testing of partners, linkages to medical care and other ancillary services as needed. Individuals who test negative will be provided posttest counseling and a referral to obtain PrEP or post exposure prophylaxis (PEP). Individuals who test preliminary positive will be referred to the Rapid antiretroviral therapy (ART) Program. There will also be an assigned cluster/outbreak code which is then added to associated events in the disease surveillance system.	Nevada HPSP staff, Nevada state DCS, SNHD Administration, SNHD CDM, SNHD CDS, SNHD Surveillance Supervisor, SNHD Senior Epidemiologist, WCHD Health Educator Coordinator, WCHD, Public Health Investigators, WCHD Public Health Nursing Supervisor, WCHD CCHS Division Director, WCHD Health Officer, and CCHHS EDM
b) List monitoring tools developed for both routine and escalated response, including line list templates, dashboards, or situational reports.	The HPSP will meet at least quarterly to provide oversight of the goals and strategies of this program. This will include participation of the LHAs. During these meetings, the	Nevada HPSP staff, SNHD Administration, SNHD CDM, SNHD CDS, SNHD Surveillance Supervisor, SNHD Senior Epidemiologist, WCHD Health Educator Coordinator, WCHD,

	group will review the current outbreak response plan, address upcoming trends, and make recommendations for any changes. Using the cluster excel spreadsheet and available Cluster Investigation Worksheets, all outbreaks can be tracked and linked to an associated event to include details such as the number of cases, number of partners identified (the Partner Services cascade), number of individuals lost to follow-up, number of individuals out of jurisdiction, etc. -Identified within excel, list not exhaustive. A report would be developed to pull these events and analyze data collected, including status of cluster response activities.	WCHD Public Health Nursing Supervisor, and CCHHS EDM
c) Describe your process for routinely reporting cluster response activities to CDC via cluster report forms.	Within 24 hours of notification of a possible outbreak, the state will complete the Cluster Report form and submit it to the CDC Monitoring Team and will follow up with a phone call. The HIV Surveillance Epidemiologist will also maintain the cluster excel spreadsheet identifying all ongoing and closed cluster information.	Nevada HPSP staff

II.	**Evaluation of cluster and outbreak response** **Document your process for assessing the outcomes of cluster and outbreak response and identifying opportunities for improvement.**	
Question/Activity	**Response/Plan**	**Responsible Party**
a) For individual response activities (e.g., enhanced linkage or re-linkage to HIV care, new HIV outreach testing strategy or	Within the detailed timeline, identification activities will occur with each LHA conducting assessment and later	Nevada HPSP staff, SNHD Administration, SNHD CDM, SNHD CDS, SNHD Surveillance Supervisor, SNHD Senior Epidemiologist,

campaign) describe how data elements, staff experiences, and other input are brought together to learn and improve in future responses.	collaborating with the state. The state will conduct hot washes at the end of each cluster/outbreak. This will include recommendations for protocol changes, future prevention activities, and lessons learned based on both qualitative and quantitative evaluation of the outbreak investigation outcomes.	WCHD Health Educator Coordinator, WCHD, WCHD Public Health Nursing Supervisor, WCHD Public Health Investigators, and CCHHS EDM
b) Document your process for evaluating an overall response to a cluster or outbreak using data and input from staff and stakeholders involved in the response. This might include continuous quality improvement processes like Plan-Do-Study-Act (PDSA) or after-action review processes.	Utilizing the PDSA, the quarterly held HPSP meetings conduct a review during and after an outbreak response to determine what quality improvement standards need to be addressed. Staff will be interviewed to determine if changes to the current outbreak response strategies need to change or be amended. Recommendations are a part of updating the after-action review process. Using the information from the hot wash, we can review and implement changes as appropriate.	Nevada HPSP staff, SNHD Administration, SNHD CDM, SNHD CDS, SNHD Surveillance Supervisor, SNHD Senior Epidemiologist, WCHD Health Educator Coordinator, WCHD, WCHD Public Health Nursing Supervisor, WCHD Public Health Investigators, and CCHHS EDM
c) Outline your process for routinely evaluating the effectiveness of your cluster and outbreak detection and response program and identifying needs and opportunities for improvement. List stakeholders you include in the feedback and evaluation process, and how findings will be shared with the community.	The quarterly held HPSP meetings will present outbreak detection and response strategies with the HPPGs and the Integrated HIV Prevention and Care Internal Workgroup, with the information made available on endhivnevada.org website. A systematic assessment of the impact of cluster response activities will include analyzing: • How the cluster was identified (molecular sequence analysis,	Nevada HPSP staff, SNHD Director of Office of Infection and Control, SNHD CDM, SNHD CDS, SNHD Surveillance Supervisor, SNHD Senior Epidemiologist, WCHD Health Educator Coordinator, WCHD Public Health Nursing Supervisor, WCHD Public Health Investigators, and CCHHS EDM

	partner services, time-space analysis, etc.) • Full size of the transmission and risk network identified through cluster investigation • Scope of individual-level interventions conducted • Scope of population-level interventions conducted, such as venue-based testing • Number of individuals linked to care or retained in care • Cluster members achieving viral suppression • Prevention continuum and status neutral • Number of individuals on PrEP or previously on PrEP • Number of individuals followed-up after 6 months	
d) Describe your process to refine routine processes based on evaluation and effectiveness findings.	The quarterly held HPSP meetings will refine routine processes based on evaluation and effectiveness. This includes analyzing lessons learned, such as identifying the components of the investigation that yielded the most useful information, staffing or resource needs for the investigation and intervention activities, effective partnerships, and any associated costs or future funding requirements.	Nevada HPSP staff, SNHD CDM, SNHD CDS, SNHD Surveillance Supervisor, SNHD Senior Epidemiologist, WCHD Health Educator Coordinator, WCHD Public Health Nursing Supervisor, WCHD Public Health Investigators, and CCHHS EDM

Abbreviations

ART	Antiretroviral Therapy
CBO	Community Based Organization
CCHHS	Carson City Health and Human Services
CDC	Centers for Disease Control and Prevention
CDM	Communicable Disease Manager
CDS	Communicable Disease Supervisor
CPTC	California Prevention Training Center
DCS	Disease Control Specialist
DDCS	Disease Data Collection Specialists
DIS	Disease Intervention Specialist
DIIS	Disease Investigation and Intervention Specialists
DPBH	Division of Public and Behavioral Health
DPCM	Disease Prevention and Control Manager
DSA	Data Sharing Arrangement
eHARS	enhanced HIV/AIDS Reporting System
ELR	Electronic Lab Reporting
EMR	Electronic Medical Record
ER	Emergency Room
FEMA	Federal Emergency Management Agency
FQHC	Federally Qualified Health Center
HAN	Health Advisory Network
HCV	Hepatitis C
HPSP	HIV Prevention and Surveillance Program
ICS	Incident Command System
IDU	Injection Drug Use
IFC	Interim Finance Committee
JIC	Joint Information Center
LHA	Local Health Authority
MAC	Moving Average Charts
NAC	Nevada Administrative Codes
NNHPPG	Northern Nevada HIV Prevention Planning Group
NRS	Nevada Revised Statutes

PDSA	Plan Do Study Act
PEP	Post Exposure Prophylaxis
PHI	Protected Health Information
PIO	Public Information Officer
PrEP	Pre-Exposure Prophylaxis
SBIRT	Substance Use Brief Intervention and Referral to Treatment
SCHS	School of Community Health Sciences
SFTP	Secure File Transfer Protocol
SNHD	Southern Nevada Health District
SNHPPG	Southern Nevada HIV Prevention Planning Group
SSP	Syringe Service Program
UCL	Upper Control Limit
UNR	University of Nevada, Reno
WCHD	Washoe County Health District

Appendices

Appendix A – Staff roles supporting Cluster and Outbreak Detection and Response

STAFF POSITION	ROLE
Manager	Attends quarterly meetings; provides general oversight to outbreak response and community involvement
Coordinator/Supervisor	Provides oversight to staff and training; ensures information is readily available for decision making; collaborates with other programs
Surveillance	Reviews, synthesizes, and interprets data; provides statistical reports and analyses as needed
Prevention	Provides guidance for prevention interventions
DIS	Investigates reports and conducts partner services

EMPLOYEE NAME	POSITION TITLE	AGENCY
Melissa Peek-Bullock	State Epidemiologist	State of Nevada
Kyra Morgan	State Biostatistician	State of Nevada
Ihsan Azzam	Chief Medical Officer	State of Nevada
Julia Peeks	Deputy Administrator	State of Nevada, Community Health Services
Lyell S. Collins	HIV Prevention and Surveillance Manager	State of Nevada, Office of HIV
Preston Nguyen Tang	HIV Prevention Coordinator and Data Analyst	State of Nevada, Office of HIV
Vacant	HIV Surveillance Epidemiologist	State of Nevada, Office of HIV
Ted Artiaga	Health Resource Analyst II	State of Nevada, Office of Analytics
Dr. Cassius Lockett	Director of Disease Surveillance and Control	Southern Nevada Health District
Alicia Simmons-Lewis	DDCS I	Southern Nevada Health District
Amanda Digoregorio	DIIS I	Southern Nevada Health District
Angel Stachnik	Sr Epidemiologist	Southern Nevada Health District
Angela King	DDCS II	Southern Nevada Health District
Betsy McLellan	DIIS II	Southern Nevada Health District

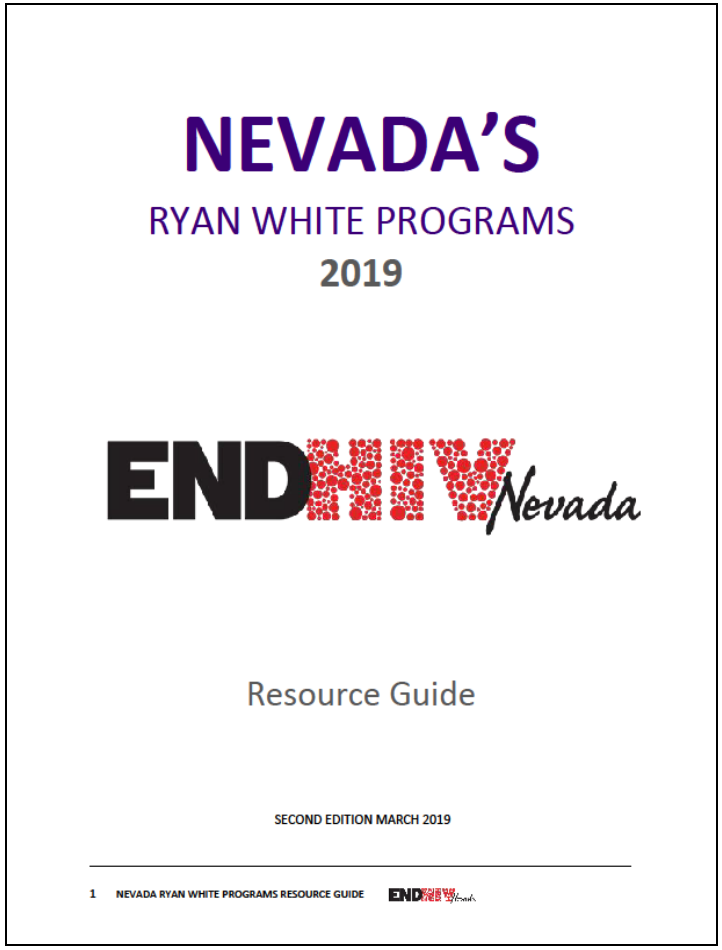
Brandon Delise	Epidemiologist	Southern Nevada Health District
Candyce White	Sr DIIS	Southern Nevada Health District
Cassandra Martinez	PrEP Navigator	Southern Nevada Health District
Cherie Filler-Maietta	Communicable Disease Supervisor	Southern Nevada Health District
Cheryl Radeloff	Sr Health Educator	Southern Nevada Health District
Christian Murua	Epidemiologist	Southern Nevada Health District
Daniel Weddle	DIIS II	Southern Nevada Health District
Danielle Hansen	DIIS II	Southern Nevada Health District
David Rivas	DIIS II	Southern Nevada Health District
Devin Raman	Sr DIIS	Southern Nevada Health District
Dustin Rossi-Boudreaux Thibodeaux	DIIS II	Southern Nevada Health District
Elizabeth Adelman	Communicable Diseases Supervisor	Southern Nevada Health District
Eric McIntyre	Senior DIIS	Southern Nevada Health District
Garren Jakubiak	DIIS II	Southern Nevada Health District
Haley Blake	Sr DIIS	Southern Nevada Health District
Janet Castro	DIIS	Southern Nevada Health District
Jennifer Bowers	Sr DIIS	Southern Nevada Health District
Jenny Gratzke	Sr DIIS	Southern Nevada Health District
Jennifer Harmon	DIIS II	Southern Nevada Health District
Jessica Donnell	DIIS II	Southern Nevada Health District
Jessica A Johnson	Sr Health Educator	Southern Nevada Health District
Jim Foley	PrEP Navigator	Southern Nevada Health District
Joey Arias	Sr DIIS	Southern Nevada Health District
Joshua Montgomery	DIIS II	Southern Nevada Health District
Katarina Pulver	Health Educator	Southern Nevada Health District
Katherine Acosta	DDCS I	Southern Nevada Health District
Kathryn Barker	Sr Epidemiologist	Southern Nevada Health District
Kelli O'Connor	DIIS II	Southern Nevada Health District

Kellie Watkins	Epidemiology Supervisor	Southern Nevada Health District
Kimberly Hertin	Disease Surveillance Supervisor	Southern Nevada Health District
Laura Cicani	DDCS I	Southern Nevada Health District
Lisa Cole	DDCS I	Southern Nevada Health District
Marco Mendez	Epidemiologist	Southern Nevada Health District
Marcus Lawson	DDCS I	Southern Nevada Health District
Marissa Valencia	DDCS II	Southern Nevada Health District
Matthew Fuqua	DIIS I	Southern Nevada Health District
Matthew Kappel	Epidemiologist	Southern Nevada Health District
Melanie Perez	DIIS II	Southern Nevada Health District
Melissa Constantin	DIIS II	Southern Nevada Health District
Micah King	DIIS II	Southern Nevada Health District
Michele Jorge	DDCS II	Southern Nevada Health District
Michele Shingu	DIIS II	Southern Nevada Health District
Monique Johnson	DDCS II	Southern Nevada Health District
Nina Anderson	DIIS I	Southern Nevada Health District
Niema Beckford	DDCS I	Southern Nevada Health District
Randi Baraniecki	DIIS II	Southern Nevada Health District
Rebecca Cruz-Nanez	Health Educator	Southern Nevada Health District
Rebecca Reyes	DIIS II	Southern Nevada Health District
Reyna Herrera	DIIS II	Southern Nevada Health District
Sabra Stanford	PrEP Navigator	Southern Nevada Health District
Sandi Saito	Admin Secretary	Southern Nevada Health District
Sarie Barnnett	DDCS I	Southern Nevada Health District
Shannon Dickey	Admin Assistant	Southern Nevada Health District
Sherilyn DeLos Santos	DDCS I	Southern Nevada Health District
Tabatha Eddleman	Senior DIIS	Southern Nevada Health District
Tabitha Ewing	DIIS I	Southern Nevada Health District

Tiffany Flournoy	DIIS II	Southern Nevada Health District
Treva Palmer	DIIS Trainer	Southern Nevada Health District
Vanessa Amaya	DIIS I	Southern Nevada Health District
Victoria Burris	Communicable Diseases Manager	Southern Nevada Health District
Victoria Hughes	Communicable Disease Supervisor	Southern Nevada Health District
Ying Zhang	Sr Scientist	Southern Nevada Health District
Zuleika Charles	DDCS I	Southern Nevada Health District
Zuwen Qiu-Shultz	Epidemiologist	Southern Nevada Health District
Lisa Lottritz	Division Director – Community and Clinical Health Services	Washoe County Health District
Sonya Smith	Public Health Nursing Supervisor	Washoe County Health District
Christina Sheppard	Public Health Nursing Supervisor	Washoe County Health District
Kelly Verling	Public Health Nursing Supervisor	Washoe County Health District
Jennifer Howell	Health Educator Coordinator	Washoe County Health District
Jessica Conner	Public Health Investigator II	Washoe County Health District
Heather Holmstadt	Public Health Investigator II	Washoe County Health District
Samantha Beebe	Public Health Nurse II	Washoe County Health District
Cecilia Bustos-Duarte	Public Health Nurse I	Washoe County Health District
Victoria Nicolson-Hornblower	Public Health Nurse II	Washoe County Health District
Allison Schleicher	Public Health Investigator II	Washoe County Health District
Alexandra Velasco	Public Health Nurse II	Washoe County Health District
Heather Kerwin	Epidemiology Program Manager	Washoe County Health District
Elena Varganova	Biostatistician	Washoe County Health District
Nancy Diao	Division Director, Epidemiology and Public Health Preparedness	Washoe County Health District
Scott Oxarart	Communications Manager	Washoe County Health District
Nicki Aaker	Director	Carson City Health and Human Services
Jeanne Freeman	Deputy Director	Carson City Health and Human Services
Katharyn Reece	Clinical Services Manager	Carson City Health and Human Services

Dustin Boothe	Epidemiology Division Manager	Carson City Health and Human Services
Veronica Galas	Clinical Services Manager (Interim)	Carson City Health and Human Services
Vacant	Public Health Investigator	Carson City Health and Human Services

Appendix B – Ryan White Programs Resource Guide



NEVADA'S

RYAN WHITE PROGRAMS

2019

END HIV Nevada

Resource Guide

SECOND EDITION MARCH 2019

Appendix C – SNHD and WCHD Outbreak Response Plans

HIV/STD/TB Cluster/Outbreak Response Plan

Office of Epidemiology and Disease Surveillance

WASHOE COUNTY
HEALTH DISTRICT
ENHANCING QUALITY OF LIFE

Sexual Health Program
Outbreak Response Plan

March 2021

Public Health
Prevent. Promote. Protect.