

Developing the SNHD Substance Use Dashboard using a systems lifecycle approach



CONTRIBUTOR: *Brandon Delise, MPH, CIC, Senior Epidemiologist, Southern Nevada Health District*

CATEGORY: Enterprise Approach to Data Systems Modernization

To address the rising impact of the substance-use crisis in Clark County, Nevada, the Southern Nevada Health District (SNHD) implemented the Software Development Lifecycle (SDLC) framework to build a dynamic, user-centered Substance Use Dashboard.

The “What”

The need was clear: improve access to real-time data and reduce reliance on ad hoc data requests. Over eight structured phases, initiation to disposition, the SNHD team created a data portal integrating mortality, hospital outcome, and drug-checking data. The result was an intuitive, visual dashboard that equips community stakeholders with actionable insights for overdose prevention, demographic trend analysis, and harm-reduction strategies—the Substance Use Dashboard. The dashboard can be accessed here:

<https://www.healthysouthernnevada.org/stories/index/view?id=332174650792002765&pid=111242705525>.



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As of July 2025, the dashboard accumulated **1,473 total views**, **752 active users**, and a **bounce rate of just 13.24%**, indicating meaningful engagement.

The “So What”

The Substance Use Dashboard launched on September 30, 2024, and immediately enhanced both internal efficiency and public data access. As of July 2025, the dashboard accumulated 1,473 total views, 752 active users, and a bounce rate of just 13.24%, indicating meaningful engagement. By reducing weekly data requests from one-to-two per week to one-to-two per month, the dashboard freed epidemiologists to focus on higher-priority activities. It also facilitated more targeted public health interventions in high-need ZIP codes and allowed decision-makers to tailor harm-reduction resources. This tool exemplifies how structured development can modernize public health surveillance while making data genuinely usable.



The “Now What”

Future improvements include expanding user engagement, collecting qualitative feedback to better understand user needs, and integrating additional data sources to provide a more comprehensive view of the substance use landscape in Clark County. Planned updates will enhance visual storytelling and support policy advocacy by highlighting community needs. This project has

become a model for future data modernization at SNHD, including a dashboard for mortality data. Ongoing needs include sustained epidemiologic support, user engagement strategies, and funding to maintain and expand functionality. The success of this project illustrates the broader potential of modern informatics tools in local public health practice.

Key contributors to this project include Ying Zhang , Marco G. Mendez, Lizbeth Vasquez.