

TO: North Carolina HMIS Stakeholders

FROM: Dennis Culhane & TC Burnett

DATE: 05/05/2020

SUBJECT: Recommendations to support improved HMIS data sharing in North Carolina

## Introduction

This memo utilizes feedback gathered during consultation and on-site meetings to provide suggested next steps to achieve statewide HMIS data sharing in North Carolina. First, we provide a brief background on the history of HMIS to illustrate its purpose and benefit, and also discuss other, more recent federal initiatives that encourage data sharing for program evaluation, policy analysis, and planning purposes. Next, we list steps that can be taken in 2020 in order to demonstrate the value of data sharing and establish the processes necessary to begin developing a more long-term data sharing process in 2021. Building on these steps, the long-term vision section provides an overview of how data sharing can be advanced incrementally to ensure success and reduce administrative burden.

### Background and History of HMIS

The Homelessness Management Information System (HMIS) program was first introduced at the federal level through a FY1999 budget appropriation to the U.S. Department of Housing and Urban Development (HUD). Language accompanying these funds required HUD to lead the HMIS development and implementation effort. The directive's primary objective was to enable communities to be able to report on the unduplicated number of people receiving services; client characteristics like race, sex, and disability status; type of housing provided and length of stay in days; and outcome information, such as health status, housing stability, and income<sup>1</sup>.

In 2001, Congress again emphasized its support of the development and implementation of an HMIS, this time noting that, "The Committee believes that it is essential to develop an unduplicated count of homeless people, and an analysis of their patterns of use of assistance," taking care to note that the types of assistance analyzed should not be limited to those designed to address homelessness, and that data should be collected on "how individuals enter and exit the homeless assistance system and the effectiveness of assistance<sup>2</sup>." As in 1999, this directive also instructed HUD to assume leadership of HMIS. It also authorized the use of Supportive Housing Program funds for this purpose and gave HUD a three-year timeframe to achieve this objective. In response, HUD published the HMIS Data and Technical Standards Final Notice in 2004, which again included language regarding the importance of understanding the "mainstream" resources utilized by individuals experiencing homelessness in addition to those specifically

---

<sup>1</sup> Stephen R Poulin, Stephen Metraux and Dennis P Culhane. "The History and Future of Homeless Management Information Systems" Westport, CT. *Homelessness in America* Vol. 3 (2008)

Available at: [http://works.bepress.com/dennis\\_culhane/101/](http://works.bepress.com/dennis_culhane/101/)

<sup>2</sup>Ibid, p. 172

targeted to the homeless population<sup>3</sup>. In 2006, Congress again issued a directive urging HUD to develop a nationwide implementation of HMIS and, using these data, produce an Annual Homeless Assessment Report to provide the Congress with a better understanding of the size of the U.S. homeless population<sup>4</sup>.

#### The Federal Commission on Evidence-based Policymaking

In addition to these and subsequent federal directives on HMIS, in 2017, the bi-partisan federal Commission on Evidence-based Policymaking (the Commission) was established to look at how government could make the best use of routinely collected data for decision-making. At the end of a one-year deliberation period, the Commission released a report outlining their findings. Key among these is the assertion that data can and should be shared for evaluation purposes, provided data security can be guaranteed through a variety of mechanisms and there is not a specific statute prohibiting data sharing. This principle became law in 2018 through the Foundations for Evidence-based Policymaking Act (EBPA)<sup>5</sup>. HUD-funded data would fall under this directive as well. The Commission was very clear that data sharing should be presumed to be possible both because of the potential benefit to program improvement and because the data security mechanisms exist to protect the privacy and confidentiality of otherwise personally identifiable data.

In sum, HMIS data should be viewed as an asset beyond reporting requirements and as a powerful tool to better understand the causes and dynamics of homelessness, ways to prevent it, and the policy and program mechanisms to better address it. While time and effort are required to enable the access and use of these data, doing so serves the greater purpose of improved outcomes for HMIS clients. Access to client-level data would provide the state with a more complete picture of homeless services in NC and also enable stakeholders to eventually share data across statewide systems. In addition, it would be helpful for basic public health epidemiology work on a variety of topics, such as the opioid epidemic, as well as helping the state better understand the most effective ways to provide and pay for services. It is in this context that the following recommendations are presented.

#### Immediate Next Step: Aggregate Reporting to the Public

There was agreement among all the parties, including HMIS leads and representatives from the state, that having a quarterly report that includes a basic roll up of clients served by quarter by county by program type (see Appendix A for templated table shells), can be started as of May or June 2020. In order to achieve this, each HMIS installation would send their quarterly data to a

---

<sup>3</sup>U.S. Federal Register. Department of Housing and Urban Development. "HMIS; Data and Technical Standards Final Notice; Notice" Washington, D.C. (2004).

Available at: <https://files.hudexchange.info/resources/documents/2004HUDDataandTechnicalStandards.pdf>

<sup>4</sup> Stephen R Poulin, Stephen Metraux and Dennis P Culhane. "The History and Future of Homeless Management Information Systems" Westport, CT. *Homelessness in America* Vol. 3 (2008)

Available at: [http://works.bepress.com/dennis\\_culhane/101/](http://works.bepress.com/dennis_culhane/101/)

<sup>5</sup>H.R.4174 - Foundations for Evidence-Based Policymaking Act of 2018 <https://www.congress.gov/bill/115th-congress/house-bill/4174>

designated entity that would then publish statistics to the public on the use of homeless programs in the state. Once this process has been in place for two years (by 2022), the HMIS installations should meet to discuss what additional detail to include—for instance, this could mean adding demographic detail by race and sex. In addition to additional demographic detail, the reporting process could increase in frequency from quarterly to monthly. While these initial tabulations enumerate service users in a given quarter/period of time, in the future, additional tables could be developed to enumerate entries and exits during that period and a one-day snapshot (first/last day of the reporting period). Because the dataset would not even include an encrypted identifier and, therefore, would not be unduplicated, the resulting file would have some limitations. Specially, there would be a small number of presumed duplicates for counting purposes, and the file would not be able to be linked to other files for evaluation, planning, or research activities. Rather, those activities would come later under the long-term vision.

### Long Term Vision for North Carolina

The long-term vision is for the two HMIS installations to share their client-level data with the state and with each other using a common encryption key, thus neither site has to transfer identifiers with their data. While the encryption process effectively means there is no identifiable information being shared, the files should always be treated as though they're potential re-identifiable. Therefore, any access to the data would be governed under a DUA that would prohibit re-identification or disclosure to third party without a DUA. We also propose that some trusted, third party be designated as the entity to receive and unduplicate these files. That entity could also be responsible for managing any data linkage efforts (using the same encryption key) and providing data integration services for approved projects. The state and the HMIS partners should agree upon a committee that would be charged with reviewing and approving proposed uses of the data.

### Initial steps to achieve long-term vision

This section focuses on two sets of activities meant to be completed over the next one-year period (March 2020 – March 2021): (1) establishing a process for creating a statewide data file and (2) laying the groundwork necessary to develop a robust data sharing system.

#### Establish a process to create a statewide data file

As described above, in order to create a combined, statewide client-level dataset in the very near future (without an encryption tool or data linkage service provider), each HMIS installation could create a dataset stripped of identifiers that are then joined up into a single file using the HUD CSV export protocol<sup>6</sup>. This would not result in an unduplicated dataset, but the likely number of duplicates would be small and would not impact overall estimates in a statistically significant way. This would immediately enable the analysis of demographic characteristic of the homeless population, services used, and exits from and returns to homelessness. We suggest that the parties agree to make the 2019 data available as soon as possible. A basic letter of agreement between the parties, outlining

---

<sup>6</sup> U.S. Department of Housing and Urban Development. "HMIS CSV Format Specifications." (September 2019). Available at: <https://hudhdx.info/Resources/Vendors/HMIS%20CSV%20Specifications%20FY2020%20v1.6.pdf>

the conditions and expectations of each party, could suffice for this initial data sharing, and would limit its use to creating aggregate statistics, and prohibiting it from being shared beyond the parties to the agreements. The longer-term vision with the encrypted id and the requirement of a DUA would enable sharing beyond just the parties listed in the agreement. Presumably, the time it would take to create the data review committee, the MOU would not be in place in time for the 2019 data.

#### Identify a Third-Party to reposit data

During our consultation and onsite meetings, some discussion was had about engaging a trusted third party who would reposit the combined, statewide HMIS data over time and provide record linkage services for authorized projects on behalf of the two HMIS installations. We recommend that the two HMIS installations issue a joint request for qualifications (RFQ) to organizations that are known to have expertise in this area (e.g., SAS, ISC at Mecklenburg, GDAC, etc.) in order to gauge their interest and capacity as a potential partner. The RFQ should be released as soon as is convenient, and should list the various requirements that would be expected of the third party (e.g., responsibility for the physical security of the data, technical safeguards against intrusions, the provision of an identifier encryption key, their data linkage capacity, etc.). Once RFQ responses have been received and reviewed, committee members can interview the most qualified respondents to discuss potential costs, and then decide whether it's necessary to issue a request for proposals (RFP) in order to identify a trusted 3rd party to manage deduplication, provide linkage services, and secure access to the data for analysis. Once a trusted third-party is selected, the MOU could be amended to include an appendix with details on their data storage and security plan. This appendix can be updated/modified as needed going forward.

#### Lay the groundwork to develop a more robust data sharing system

During 2020, we recommend creating a memorandum of understanding (MOU) between the two HMIS installations (and possibly the North Carolina Emergency Solution Grants (ESG) Office or other, relevant state agency offices) that would memorialize a longer-term agreement for data sharing. The MOU<sup>7</sup> would spell out the mission and ethics guiding this effort and the policies and procedures for processing data requests, including the formation and composition of a data review committee that will be responsible for implementing the data sharing plan in year two and beyond.

In terms of the data review committee composition, this decision should be made by the state in consultation with the HMIS installations. We do not have a specific recommendation as to the size and composition, but would recommend that it include representatives from each HMIS installation, people with lived experience of homelessness, someone from the research community, and state agency representatives. However, this decision is up to the parties involved. Once established, this group should meet at least quarterly and work by consensus, using the section of the MOU that outlines

---

<sup>7</sup> For an example of this type of MOU, please [click here](#) to see a template from the CT Coalition to End Homelessness.

how projects can be reviewed and approved and the criteria by which they would be judged to guide their decisions<sup>8</sup>.

#### Next steps to achieving the long-term vision

Once an MOU is executed among the parties and a data review committee formed, then year two will enable the initiation of a more established set of procedures. The following section builds on these accomplishments to outline a more long-term vision for this work.

We recommend that the two HMIS installations, possibly assisted by the trusted third party, adopt a standard encryption key that is applied to the personal identifiers in their respective datasets. The encrypted identifiers and associated data would then be shared with the trusted third party who would join those and unduplicate them. This encrypted statewide file can then be repositied in both HMIS installations. It could also be agreed that this file would be shared with the North Carolina ESG Office and other state partners for their internal program monitoring and evaluation purposes. This encrypted file could also be used for linkage by the trusted third party with other state agency data, county agency data, and research datasets that are similarly encrypted, provided they have a legitimate and approved research project. We suggest working with the data review committee to establish an annual schedule for the data transmission. This approach, with each HMIS installation doing its own encryption, would mean that no personal identifying data (PII) ever leaves either of the HMIS installations.

While these initial tabulations enumerate service users in a given quarter/period of time, in the future, additional tables could be developed to enumerate entries and exits during that period and a one-day snapshot (first/last day of the reporting period).

---

<sup>8</sup> The MOU doesn't need to be a long document—rather, it should embody the principles through which data sharing is established.