

Research Team and Acknowledgments

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Report Overview

Project Purpose and Scope of Work

Oregon Housing and Community Services (OHCS) contracted with Portland State University's Homelessness Research and Action Collaborative (HRAC) to support OHCS to develop a governance structure for a statewide Homeless Management Information System (HMIS) database then referred to as a "data lake." Specifically, HRAC would help OHCS develop a governance structure informed by community and guided by racial equity. As defined in the Scope of Work, the principles of the OHCS governance structure would include:

- 1. Support a shared purpose where disagreement is respected;
- 2. Build meeting spaces and expectations, with specific attention to online mechanisms that address the statewide need for discussion;
- 3. Understand what it means and looks like to create racially-equitable and community-informed research and evaluation practices for communities most impacted by homelessness.

Governance is a process that reflects who makes decisions and about what issues. Continuums of Care (CoCs) will need to determine what data they are comfortable sharing, under what conditions and for what purposes. OHCS will need to communicate why data sharing is important, how they will use data and what questions data will help to answer.

In this report we summarize our work-to-date and make recommendations for next steps. The document structure is as follows: an overview of recommendations are provided, followed by research methods, and research summaries for key take-aways and a detailed discussion of the core recommendations. The key take-aways and core recommendations sections provide some of the evidence base for our findings. After the research summaries, we present options for governance structure as well as a summary of our literature review on HMIS governance. After a brief conclusion, we include appendices of documents produced throughout and in support of our research.

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¹ Since the initial project scoping, OHCS has shifted its envisioned technology platform from a data "lake" to a data warehouse. Despite this shift, governance will still be needed.

Overview of Recommendations

Recommendation 1: Develop a "use case" for data sharing and a data sharing governance structure.

Recommendation 1a: Communicate OHCS' vision for data sharing and the processes through which OHCS is willing to facilitate data sharing.

Recommendation 1b: Determine the type of governance structure that OHCS is interested in pursuing as it relates to racial equity, collaborative governance, and incorporating the viewpoints of people with lived experience.

Recommendation 2: Prioritize capacity building in collaborative decision making that invites and involves CoCs as active partners in data sharing decisions and provides transparent communication for decision making.

Recommendation 3: Embed racial equity and community centered work in organizational practices

Recommendation 3a: Identify opportunities throughout OHCS to embed racial equity principles in written commitments and in concrete actions. Detail exactly what a commitment to racial equity looks like in practice and operationalize these commitments. Slow down to center concerns about racial equity and data justice. If you cannot meet all of the goals, be honest and transparent about what you can and cannot do.

Recommendation 3b: Build capacity to understand and address racial inequities embedded in HMIS data sets and to mitigate risks to racial equity involved in data sharing, integrating, and/or matching.

Recommendation 3c: Expand consultations with stakeholders to include Oregon tribes and culturally specific providers that could benefit from/be impacted by a data repository or sharing structure now or in the future.

Recommendation 4: Build capacity and infrastructure to meaningfully involve people with lived experience of homelessness in decision making around data sharing.

Recommendation 5: Invest time and resources to build OHCS and CoC capacity to participate in data sharing governance, and to implement data sharing agreements (including, to work with local partner agencies on data sharing agreements, administer training, introduce and onboard partners to the statewide HMIS data sharing vision).

Recommendation 6: Coordinate discussions around data quality, standardization and HMIS reporting expectations.

Methods

Over the course of a year, HRAC has conducted a literature review of evidence to inform HMIS integration, conducted interviews with OHCS staff members and CoC representatives, presented at the OHCS tribal working group, and hosted a workshop with OHCS to better understand the vision and capacities of OHCS in progressing the development of the governance structure that fulfills the goals described above. We reviewed a report developed by ICF regarding recommendations in response to Senate Bill 5512 (2019) budget note. We also met semi-monthly with OHCS contacts to discuss progress and next steps.

In this report, we combine these sources (i.e. published evidence alongside findings from our consultations) to provide a high-level summary of findings and recommendations for next steps. Additional detailed reporting for each method, including findings specific to each method, can be found in the Appendices at the end of this document.

Key Takeaways

Key takeaways combine results of the CoC interviews, interviews and activities with OHCS staff, and the literature review in a high-level summary of our results. The takeaways that provide the foundation for our recommendations are:

- **Communication.** The strongest theme across CoC interviews, with its importance reinforced by the literature review, is a desire for better communication between OHCS and CoCs as well as between CoCs. Communication relates to two central issues:
 - 1. Defining a "use case" for the purpose of data sharing this "use case" would define the overarching vision for the data repository's purpose and functionality, as well as the roles and responsibilities of data repository users. This use case would also include details about how data sharing will address the needs of different stakeholders, what minimum data will be needed, how decisions will be made, and who data sharing will benefit. Critically, without a clear vision CoCs cannot fully appreciate or respond with whether they do or do not support data sharing and under what conditions.
 - 2. Improving learning, data quality, and effectiveness of service provision Throughout interviews, CoCs identified many potential benefits of data sharing but in almost all instances, these benefits intersected with a need to improve communication and coordination between CoCs and between CoCs and the state. In other words, data sharing was seen as a mechanism through which CoCs could improve practices, coordinate services, and build cross-CoC relationships that would improve effectiveness and efficiency. Therefore, in their perspective, data sharing should not be not a linear process of providing data to fulfill OHCS requests, but a dynamic process of conversation, negotiation, ongoing learning, collaboration and trust-building between all parties involved.

- Racial equity. Leading with racial equity requires organization-wide cultural changes. As we understand it, OHCS is beginning this journey. And yet, building staff capacity takes time and will involve missteps alongside progress. Likewise, most CoCs are also starting on their own racial equity journey. In general, OHCS staff members and CoC representatives are familiar with the general concepts of racial equity, but not how to operationalize it. If they do not understand how racial equity shows up in this specific work there is a risk of jeopardizing trust-building and overlooking key racial equity concerns that need to be considered in data analysis and data sharing. Evidence reinforces that improving racial equity in organizational practice can be a long, iterative process that requires commitment at multiple levels (1).
- Clarify purpose and goals. At a high level, the purpose of data sharing is simple it will bring together HMIS data from the CoCs for state-level data analysis. However, there are a range of ideas within OHCS about what the purpose of data sharing is, what goals it will accomplish, what benefits it will provide, and to whom. Further, CoCs lack clarity about the purpose of data sharing and are looking to OHCS for clear guidance on what questions data sharing will answer, how data will be used, and what processes will be in place for input from CoCs to ensure data quality. Internally, the diversity of perspectives within OHCS poses a potential risk to the development of a clear, specific ask of stakeholders to participate in a governance structure. A lack of a clear purpose, as well as the diversity of perspectives are also not unusual when a project has started, and should be resolvable with continued internal discussions (2).
- Enthusiasm and Support. OHCS staff members are excited about the data repository
 and how it can help inform their work, improve programs, and demonstrate impact.
 Likewise, CoCs are generally interested in data sharing provided that there is a clear use
 case and transparent processes are communicated for how data will be used and for
 what purpose.

Recommendations

If the governance structure will address racial equity, and effectively attend to the desire of creating a space where "disagreement is respected," then given the initial learnings we are recommending the following (also summarized in <u>Table 1: Overview of Recommendations with Potential Next Steps to Establishing Governance Structure):</u>

Recommendation 1: Develop a "use case" for data sharing and a data sharing governance structure (See Box 1 for definition of a "use case" and <u>Appendix A</u> for a use case template).

Recommendation 1a: Communicate OHCS' vision for data sharing and the processes through which OHCS is willing to facilitate data sharing.

Rationale: A clear vision for the purpose and value of data sharing helps to set the scene and invite collaboration. An initial vision is provided in the HMIS Memo developed by HRAC (see <u>Appendix C</u>).² OHCS and internal staff need to be able to share a common goal to streamline activities including requests for data, approaches to data analysis, and processes for sharing findings. Further, articulating and sharing common values (i.e. equity, collaboration) will help to ensure OHCS staff are consistent in their approach and communication. OHCS has the opportunity to co-create a vision for data sharing with CoCs, and we encourage this approach as a more authentically collaborative process. OHCS may also choose to define the vision and scope of work as relevant to their specific context.

Recommendation 1b: Determine the type of governance structure that OHCS is interested in pursuing as it relates to racial equity, collaborative governance, and incorporating the viewpoints of people with lived experience.

Rationale: Part of developing the "use case" involves OHCS determining what kind of governance structure they have organizational readiness and capacity to set up. The "use case" should articulate OHCS' vision for how decisions around data sharing can be made with OHCS' particular opportunities and limitations in mind. The more inclusive and equitable a governance structure is meant to be, the longer it will take to create. These types of governance structures also require more staff capacity and skills. OHCS should determine what their goals and capacities are in order to move forward transparently. The most damage OHCS could do to their external relationships is to make claims about racial equity and collaboration with no ability to meet those goals. In this report, we provide a range of governance options reflecting a spectrum of power-sharing to facilitate consideration of the kind of governance OHCS is ready and

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² See https://i2d2.iastate.edu/vision/ for an example of a mission statement and guiding values for data integration coordinated by lowa's early childhood system.

willing to undertake (see <u>Options and Considerations for Governance Structures</u> in this document).

Recommendation 2: Prioritize capacity building in collaborative decision making that invites and involves CoCs as active partners in data sharing decisions and provides transparent communication for decision making.

Rationale: Transparency, trust and relationship building between OHCS and CoCs will be needed to support data sharing goals and is a key solution identified in the literature to address data integration risks (2). CoCs are concerned about how their data will be presented and how their "story" will be told. CoCs described a high degree of variability in data quality and collection practices across CoCs as well as across local partner agencies feeding data to CoCs, finding that this variability poses a strong risk to misinterpretation and misrepresentation. Getting the story "wrong" could thereby adversely affect local communities, CBO's relationship with local CoCs, and public support for services if misinformation is published without input from CoCs.

Recommendation 3: Embed racial equity and community centered work in organizational practices

Recommendation 3a: Identify opportunities throughout OHCS to embed racial equity principles in written commitments and in concrete actions. Detail exactly what a commitment to racial equity looks like in practice and operationalize these commitments. Slow down to center concerns about racial equity and data justice. If you cannot meet all of the goals, be honest and transparent about what you can and cannot do.

Rationale: HRAC's inquiry demonstrated that both OHCS and CoCs are just beginning their journey to understand and advance racial equity. While equity principles have been defined, how to operationalize and realize principles in organizational processes - including data use and sharing - is not clear to staff. Leadership is needed, and many CoCs are looking to OHCS to provide this leadership role. It is critical to take time to build this capacity and to be open to feedback and changes to improve implementation.

Box 1. Definition of a "use case" (3, 4) See Appendix A for template

Origins of the concept: The concept of a "use case" is borrowed from the fields of project management and software development. Generally speaking, use cases outline how a system/product/technology will accomplish specific tasks to achieve a goal. They outline how users will interact with the system. For this context, we borrow the term and adapt criteria for application to the "data repository" concept.

Value of a "use case": Use cases help to communicate vision, purpose, strategy and design to stakeholders. They provide a bridge between the justification for the new technology, the technical specifications and how the technology is meant to be used. Use cases can range from broad and generally abstract, to granular and technologically specific. OHCS should begin with a broad, abstract-level case that outlines the broad processes and actors who will be involved.

Suggested Components of a Use Case for OHCS Data Governance:

- Description Define the system and its intended use
- Actors and Goals- Define who will directly interact with the system and what they will use it for. There will likely be various actors with different goals. Identify each actor and their potential goals/purpose for interacting with the system. (Note: Start with OHCS as the primary actor)
- Stakeholders Identify others who are not direct users, but have an interest in how the system behaves (e.g. policy makers) and what that interest might be.
- Basic flow Outline the processes by which the repository will work. This includes how OHCS intends to receive, use, and report data. Include who will be involved in decision-making. This is the main scenario for how the data repository will work and provides a base to explore alternative scenarios.
- Alternative paths/flows Variations on the main scenario. This could include how OHCS behavior might change given different events – for example, a special request from the governor, or how the repository would be used in the absence of a governance committee. (Note: this component is a good thought exercise to compare different approaches and refine the Basic Flow, but only the Basic Flow might be shared as a starting point for an initial conversation with CoCs to ensure clarity of vision and reduce confusion)

Recommendation 3b: Build capacity to understand and address racial inequities embedded in HMIS data sets and to mitigate risks to racial equity involved in data sharing, integrating, and/or matching.

Rationale: OHCS and CoCs appear generally unfamiliar with how racial equity may be enhanced or worsened through data sharing including risks inherent with integrating and/or matching HMIS data with other systems and how to mitigate them. Risks of data sharing include mis-use of information that results in further harms and entrenchment of racial inequities, potential for re-identification, how data will be used beyond the original intent of collection (2). Further, unchecked use of existing HMIS data and data collection tools could further perpetuate and potentially amplify racial disparities. The use of coordinated entry tools, specifically the VI-SPDAT, can perpetuate racial and gender bias due to questionnaire design, assessor characteristics and bias, and institutional mistrust of Black, Indigenous, and other People of Color (5,6). For example, one study shows that while Black women have similar reasons for being homeless compared to White women, Black women's VI-SPDAT scores are lower than both White women, meaning that Black women are generally eligible for less services (6). Key risk mitigation strategies include close collaboration with the people whose data is being collected (i.e. people experiencing homelessness) and data providers, and ensuring transparency about the intended use of data and the data sharing system and by whom and embedded biases in the data.

Recommendation 3c: Expand consultations with stakeholders to include Oregon tribes and culturally specific providers that could benefit from/be impacted by a data repository or sharing structure now or in the future.

Rationale: Communities who could benefit from – or be impacted by exclusion from – the data repository or sharing structure should be involved in its initial development. This is particularly important in the case of historically disadvantaged communities including Black, Indigenous and other People of Color (BIPOC). Therefore, we recommend that Oregon tribes and culturally specific providers be invited to participate in decision making, and be invited early in the process to give input as processes and structures are in development. Although some of these stakeholders may not be current grantees, or currently have data feeding into the data repository, their early involvement in the development and governance of the data repository is essential to ensuring that any design meets their needs.

Recommendation 4: Build capacity and infrastructure to meaningfully involve people with lived experience of homelessness in decision making around data sharing.

Rationale: People with lived experience of homelessness should be considered the primary beneficiaries of data sharing activities. It is their data that is being collected and shared, and therefore, they should be represented in decision making about data

sharing (7). Ensuring that people with lived experience of homelessness are meaningfully involved in data integration decisions will require careful consideration in the design of the governance process and capacity to support their involvement will need to be built. Meaningful involvement involves enabling people to consent to how their data will be used. It also involves sharing decision making powers including, for example, regular involvement in conversations, input into policies, reports, use of data, voting powers, veto authority, etc. As with implementing racial equity principles, building OHCS and CoC capacity to respectfully and meaningfully include people with lived experience of homelessness will take time and should not be rushed.

Recommendation 5: Invest time and resources to build OHCS and CoC capacity to participate in data sharing governance, and to implement data sharing agreements (including, to work with local partner agencies on data sharing agreements, administer training, introduce and onboard partners to the statewide HMIS data sharing vision).

Rationale: CoCs are already stretched for time and resources. Further, they hold and foster relationships with local partner agencies. For the statewide data sharing vision to be fully achieved, CoCs must be able to represent OHCS' vision to partners, answer questions, and help them understand the implications and benefits of contributing data to HMIS. This will take time and resources to implement appropriately.

Recommendation 6: Coordinate discussions around data quality, standardization and HMIS reporting expectations.

Rationale: Given the variability between CoCs in how data are collected and reported, CoCs are interested in better coordinating and understanding data collection approaches across the state. They are interested in coordinating with other CoCs with a goal to standardize some data collection activities to improve the quality and consistency of Oregon's HMIS data. OHCS can play a leadership role in hosting these conversations.

Below, we summarize these recommendations in Table 1. We provide additional details to help guide discussions and decision-making regarding recommendation implementation.

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Table 1: Overview of Recommendations with Potential Next Steps to Establishing Governance Structure

Topic	Recommendations and Potential Next Steps
1.Use Case for Data Sharing and Governance	 1.a. Develop and communicate a rationale for data sharing that includes information such as What data will be shared, what data will be matched? What are the questions data sharing will answer (i.e. what is the purpose of data sharing?) 1b. Develop and propose a governance structure that includes information such as Who will participate in decision making about data sharing? How are historically marginalized communities participating, including Black, Indigenous, and other People of Color (BIPOC), and people who have lived experience with homelessness? What roles will OHCS play in governance? What are envisioned roles for other partners? How will decisions about what to data share and when be decided? Who has authority and who gives advice? How will input be used? What opportunities will partners have for clarifications or feedback? How will findings be distributed and to whom?
2.Transparency /Trust	 Prioritize capacity building in collaborative decision making Develop and implement communication plan that Establishes a process for input into HMIS reporting Provides background and rationale into HMIS reporting decisions Convene CoCs around shared decision making on data quality and data integrity
3.Racial Equity	 3a. Throughout OHCS, identify opportunities and detail exactly what a commitment to racial equity looks like and means in practice and operationalize these commitments. Develop equity goals, concrete action plans, and metrics to evaluate implementation and progress towards improvement. Set expectations for both qualitative and quantitative program evaluation that consider racial disparities embedded in the data, evaluation approaches, the development of research questions, and analysis activities. 3b: Build capacity to address racial inequities embedded in HMIS data sets and to mitigate risks involved in data sharing. Educate OHCS, CoCs and other stakeholders about risks and mitigation for racial equity in data matching/sharing/integration, and that are embedded in HMIS data systems. Develop approaches for data collection and analysis that identify and mitigate for racial bias in data sets. Closely collaborate with the people whose data is being collected (i.e. people experiencing homelessness) and data providers. Ensure transparency about the intended use of data and the data sharing system and by whom and embedded biases in the data. Center evaluative questions on the interests of BIPOC by ensuring BIPOC involvement of- or ideally, leadership of - in the design, implementation, analysis and reporting on evaluation activities. Staff or contract with BIPOC facilitators to lead governance deliberations and seek tribal government leadership and coordination Communicate with culturally specific providers and tribal governments about statewide HMIS data repository governance early and often Communicate clearly the benefits of being involved in a statewide HMIS data repository

	to culturally specific providers and tribal governments
4.People with Lived Experience in Homelessness	 Start the conversation about how to engage people with lived experience in homelessness among CoCs and other HMIS stakeholders Set expectations for engagement from people with lived experience in homelessness in decision making
5. Capacity	 Allocate time for all stakeholders (OHCS, COCs, BIPOC partners) to learn about CoC data collection processes to better understand how to interpret the HMIS data they are delivering Provide funding for staffing and time for CoCs to revisit data sharing agreements with local partner agencies, administer training, and otherwise onboard local partner agencies to the statewide HMIS data repository concept Acknowledge and strategize for groups whose data is not reported in HMIS; work closely with CoCs to identify these groups and understand how best to serve their needs without HMIS reporting
6.Data Sharing	Convene all CoCs to develop a data plan and/or agree on data standardization and expectations in reporting HMIS data to OHCS

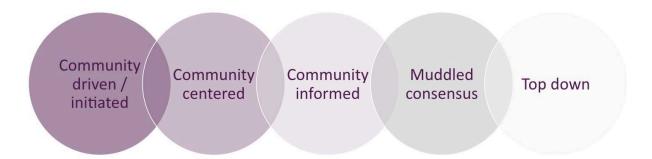
As demonstrated in this section, we provide a series of recommendations and questions to guide OHCS' next steps. Most of these recommendations and corresponding questions require firm decision regarding the type of governance structure that will be adopted. In the next section, we present types of governance along a spectrum ranging from community-driven to top-down. We offer a typology of these governance structures to aid OHCS in decision-making about which will best fit their values, goals, priorities, and practical restraints.

Options and Considerations for Governance Structures

Our first recommendation requires that OHCS choose an approach to governance that is feasible to implement and responsive to OHCS priorities and capacities – including priorities to lead with a racial justice lens as well as obligations to internal and external stakeholders. Stakeholder interviews reflect that this way of working is sometimes consultative on an ad hoc basis, but that, generally OHCS wields decision-making authority through funding agreements and requirements and communication feels top-down. We encourage OHCS to consider various governance models, what their implementation would require, their goodness of fit with OHCS goals and values, and to take an active stance as to what governance model and its boundaries they will choose to implement.

The design and development of an HMIS data repository governance model can take many forms. Previous studies performed by HRAC have produced a Spectrum of Governance for Research Partnerships in which five models of governance appear in order from most community involvement to least (See Figure 1) (1). A table demonstrating how these models differ from each other in the context of a data repository implementation is provided in Table 2.

Figure 1: Spectrum of Governance



Evidence from both literature review and interviews with CoCs suggest that community involvement levels will vary depending on the governance topic. For instance, some CoCs suggested that they want to be involved in reviewing data findings before they are published, which is a function of the community-informed approach to answering research questions. On this matter, OHCS could choose the community-informed approach or take additional steps to improve community engagement through a community-centered approach. OHCS can take a community-centered approach that involves CoCs in determining what data to assess and how to assess data, such as identifying which variables are most important or how to interpret the data for each variable (which may differ by CoC or even CAA). The table below provides examples of how approaches differ across several governance types.

Table 2: Spectrum of governance options for consideration for OHCS HMIS data sharing

	Community Initiated	Community Centered	Community Informed	Muddled Consensus	Top down
Who has decision-making authority?	Community partners ³	OHCS, with an emphasis on listening to and building decisions upon what is heard from community partners	OHCS, community partners are invited to give feedback that may or may not be applied	OHCS, community partners may be invited to give feedback that may or may not be applied	OHCS, no community feedback is necessary
Who develops policies and procedures?	Community partners	OHCS through discussion with community partners	OHCS, with feedback given from community partners	OHCS, with feedback given from community partners that may or may not be applied	OHCS, with no feedback necessary
Who is the convener?	Community partner is the convener.	OHCS is the convener.	OHCS is the convener.	OHCS is the convener.	OHCS is the convener.
Who is a partner?	OHCS and other stakeholders determined by community partners	Community partners and other stakeholders identified in discussion with community partners	CoC, CAAs, and other stakeholders. People with lived experience in homelessness are invited to give feedback only.	Partnership may or may not apply. If it does, partnership drawing from CoC, CAAs, and other stakeholders. People with lived experience in homelessness are invited to give feedback only, if necessary.	No partners necessary
How is racial equity conceptualized and applied?	As defined by community partners of color	As defined by OHCS in conversation with community partners of color	As defined by OHCS based on guidance from internal and external experts, with	As defined by OHCS based on guidance from internal and external experts. Input from	As defined by OHCS based on guidance from internal and external experts. No

³ Community partners include: CoCs, other community-based stakeholders (including CAAs), and people who have lived experience with homelessness.

	Community Initiated	Community Centered	Community Informed	Muddled Consensus	Top down
			feedback from stakeholders	stakeholders may or may not be applied	opportunity for feedback.
Who develops questions? Who decides which questions are answered?	Community partners	OHCS develops questions in conversation with community partners. Which questions are answered and how they are answered is collectively determined, given data readily available and available in the future.	OHCS develops questions. Moves forward with those most urgent or possible to answer given data readily available. Community partner feedback can impact questions, given limitations of data.	OHCS develops questions. Moves forward with those most urgent or possible to answer given data readily available. Community partner feedback likely will not be applied.	OHCS develops questions. Moves forward with those most urgent or possible to answer given data readily available. Community partner feedback is not necessary.
Who designs standards for data inputs?	Community partners	OHCS, in conversation with community partners	OHCS, with feedback opportunities from community partners	OHCS. Feedback opportunities are provided but may or may be applied to the standards developed.	OHCS determines standards
Who has control over data?	Community partners determine when and how their data is used and for what purpose	OHCS and community partners determine what levels of control and use are most beneficial to community partners	OHCS determines best uses for data, presents to community partners who may or may not agree. Attempts to assuage any discomforts are present.	OHCS determines best uses for data. Shares intentions for data use, provides opportunity for feedback, but moves forward whether partners agree or not	OHCS determines best uses for data based on contractual obligations. Consultation with community partners is not necessary.

What is important for OHCS to consider is where you are on these topics right now. Being able to identify where you are at today is useful information both for OHCS as an organization and for potential partners in governance. Clarity on topics such as decision-making authority and control over data, give conveners and participants a clear picture on what is expected from everyone involved. Next, OHCS will want to identify areas in which they want to shift. Current limitations may not make it possible to center on community today, but identifying that as a goal can be a beacon toward which OHCS can move. Use this table to identify where you are today and where you want to go. Note that for each topic, you may identify with different models on the spectrum.

To further provide examples of data governance approaches, we provide an overview of two approaches below: Community-Centered Governance and Community-Informed Governance. These examples reflect two types of governance models on the spectrum, yet they are both situated towards the community engagement end, reflecting OHCS' goal to avoid "top-down" governance structures and move toward structures that involve community.

Option 1: Community-Centered Governance

An HMIS data repository governance model can center on the interests and concerns of CoCs, other community-based stakeholders, and people who have experience with homelessness. This approach would begin by establishing partnerships with CoCs, community organizations and service providers, and community members to seek their guidance on the design of a governance structure (1). OHCS would need to assess their willingness to share power and with whom. OHCS will also need to be able to clearly express their position on power sharing to their partners, including the extent to which resources will be distributed. OHCS will also need to assess their willingness to commit to resource reallocation/distribution, to publicly state their commitments to community-centeredness and racial equity, and to disrupt conventional white supremacist structures. Dedication to following the lead of BIPOC and culturally specific organizations is essential to this work. OHCS may experience self-sacrifice of institutional gain for the benefit of community members and needs to understand the extent to which they are able to do so. While OHCS will continue to hold authority over final decisions, community-centered and racially equitable governance follows the community's lead.

Governance that is community centered emerges from multi-stakeholder collaboration, which typically requires a slower pace and a greater number of people being engaged. Early community partner engagement can produce a governance structure modeled on approaches most meaningful and useful to those providing HMIS data to the repository, developing an integrated system that better meets the day-to-day needs of system users, while possibly reducing concerns and increasing buy-in for the system's purpose and use.

Community centered design and development is also best suited to establishing racially equitable data sharing practices. CoCs, community organizations and service providers, and —most significantly— BIPOC who have experience with homelessness have a closer proximity to

HMIS data and therefore the implications that HMIS data integration can have on BIPOC communities and other historically marginalized communities. Their input can have a significant impact on designing systems and governance that are aware of and responsive to the ways in which racial disparities can be reinforced and reproduced through data collection, analysis, and reporting. Early engagement of BIPOC community partners will influence which questions are being asked as well as how those questions are being answered through the data repository.

Option 2: Community-Informed Governance

Alternatively, a community-informed governance of a data repository is also possible. As the datasets being integrated already exist, OHCS can identify how the data are incomplete and can start to imagine what kinds of analysis these data can deliver. OHCS has familiarity with the quality of already existing data and can therefore state the limitations, constraints, and opportunities inherent in individual and integrated datasets. In a community-informed governance approach, OHCS holds responsibility over the data integration policies and procedures, determining how data will be shared, with whom, and what rules that data sharing will follow. OHCS can then share these rules with community members, who they may invite to provide feedback or ask to inform future iterations of data governance, reporting features, and improved data quality. Developing data governance based on what is known and possible means that the real capabilities of the administrative data is leading the way.

Examples of data governance models in practice

Homeless Data Integration Systems (HDIS) have been established in both California and Illinois, each approaching governance as a technical and administrative task. Both states established data sharing agreements with CoCs, instituted standardized data reporting requirements, and developed a method to assess and clean statewide data in preparation for data analysis and reporting. It is important to note that at least in the California approach, providing data to the HDIS is tied to CoC's funding streams. Few details have been reported about the development process for either of these systems. In California, developing the HDIS involved 5 staff members (8). Recommendations for Illinois' HDIS development suggested that the Department of Innovation and Technology develop governance and management procedures, emphasizing the technical aspects of governance (8). However, they provide no evidence that community partners were engaged in the design process, rather, data sharing is suggested to be a requirement for CoCs that is facilitated through legal and technical mechanisms, which makes these examples of top-down governance. California, however, made some additions that moved them closer to a community-informed approach.

The same bill enacting the California HDIS also developed the California Interagency Council on Homelessness (Cal ICH), which is responsible for overseeing implementation of Housing First policies, guidelines, and regulations (9). Cal ICH is composed of 18 director-level representatives from state departments and two state-appointed community representatives.

There are also two advisory boards engaged: a recently developed (since Fall 2023) Lived Experience Advisory Board, composed of members who have lived experience in homelessness and a general Advisory Committee composed of members with specific experience or expertise in areas such as gender-based violence for those experiencing homelessness, representatives from racially specific groups, youth groups, those with experience with homelessness solutions in other states. While the Cal ICH has a more robust agenda than governing the HDIS alone, this council and advisory structure is an example of the kinds of collaboration and coordination necessary to govern data systems as a community-informed governance model.

Deciding which approach to take

As OHCS approaches designing and implementing the Oregon HMIS data repository, considering the spectrum of governance can reveal the extent to which governance will lean more toward centering community or being more community-informed. In both of these options, a racially equitable lens is possible, with the understanding that racial equity will look different in each case. Neither of these choices are inherently bad or good, but rather are a result of the particular circumstances and conditions under which HMIS data integration occurs.

Table 2 and Table 3 (next section) each provide questions and considerations of decisions that OHCS will need to make when designing and developing HMIS data repository governance. We recommend that OHCS review these questions as a team, noting in which aspects you are willing to center community and which you are not. Take the time to consider the questions and pathways we have presented here, to thoughtfully select a path that best fits with your organizational values, project expectations, and timelines. Finally, be prepared to share your answers to these questions with any partner you choose to engage in governance.

In the next section we present evidence from the literature review that provides insight into data integration implementation risks and suggested mitigation strategies. We conclude with a table that summarizes these findings in a set of questions for OHCS to consider regarding purposes of data integration and plans for implementation.

State of evidence regarding integrating HMIS data: Literature Review

As previously mentioned, the recommendations provided in this report are informed through interviews and other primary data collection activities alongside recommendations from published literature. The literature review provides another perspective on data sharing, but largely supports the points we make in the above document. In summary, data integration has generally been assumed to be a positive activity but is largely an unexamined practice. The literature speaks to potential risks and mitigation strategies which are summarized below.

The integration of HMIS and other data sources have proven to be fruitful for research and service delivery, but data integration is still in need of further analysis. Several concerns continue to trouble community members, legal experts, homelessness advocates, and government agencies alike. The most common concern is the potential for mis-use of information. Also significant is the potential for re-identification, and how data will be used beyond the original intent of the integrated system. The few studies documenting HMIS data integration note that resolving for these concerns is not quick and easy.

Researchers suggest various techniques and tools to assist those designing governance of data integration that will help overcome common challenges. First, stating the intended purpose of data integration can help clarify why integration is occuring in the first place, and can clarify such reasoning for present and future partners (2). Next, developing policies and procedures for data use can minimize the potential for mis-use of data. These policies and procedures need to articulate who has permission to use client information, what procedures are necessary to securely share data for research and evaluation, and state the restrictions for use beyond the original intention of the integration (2). In addition to these strategies, regularly asking for consent to integrate and analyze a person's data can build trust with the individuals whose data is being shared. Allowing individuals to review and edit their information at regular intervals (i.e., every two years) means that clients remain in control of when and what data they provide (10). Being consistently transparent about policies, processes, and future uses of integrated data can help build trust in integrated data systems.

Another common concern about HMIS data integration is the extent to which data is complete and/or correct. A range of issues arise from this concern. First, understanding the circumstances under which data is being collected can shed light on the reasons for incomplete or incorrect data. Working closely with data providers and people with lived experience with homelessness can help governments understand the constraints and limitations of data collection (7). Second, a person must interact with the systems that generate data in order to be visible there (7). This is one reason why data bias is inherent within datasets, causing skewed findings (2). Analysts will need to be very clear about not only their intent in analyzing data, but research and report on the original intention of the databases they draw from.

Lastly, re-identification or re-disclosure is possible when integrating information from various data sets. Governments need to evaluate the level of risk they are willing to take on for re-identification and be transparent about their choices (2). Operating under the assumption that this risk is unavoidable, memorandums of understandings (MOUs) and other forms of agreement can be useful in developing a shared language and understanding of the intent of the integrated data system.

The concerns discussed in the data governance literature largely regard protecting the people whose data is being shared. Continuing to discuss issues with community members, whether advocates or skeptics of data integration, is necessary to build an integrated system that aligns with the desires of the groups it intends to benefit (2). While integration may be largely viewed as a public benefit, there is still more to be learned about attitudes toward using such data among people who have experience with homelessness (7). Gradually building relationships with community members over time and across a region can help build a foundation through which trust in integrated data systems can be developed, understanding of constraints and limitation of data collection can be shared, and appropriate policies and procedures can be established to safely share data according to the interests of people who are experiencing homelessness.

Table 3. Questions for OHCS to consider for data integration

- What is the intended purpose of data integration?
- How will policies and procedures provide safeguards for data mis-use?
- Who will have permission to use information in the data lake?
- What procedures are necessary to securely share data for research and evaluation?
- What restrictions are needed to deny use beyond the intended purpose of integration?
- Will people experiencing homelessness be asked for consent to incorporate their information into the data lake? How often will consent be requested?
- Will people experiencing homelessness be able to edit and revise their data? Will they be able to revoke consent and/or remove their data at any time?
- How will policies and procedures be shared with people experiencing homelessness?
- How will OHCS understand the circumstances under which data is collected?
- How will bias, incomplete information, or incorrect information be handled and articulated?
- With whom does OHCS need to enter into an MOU or other form of agreement?
- To what extent will OHCS involve people who are experiencing homelessness in the design of data governance?
- How will relationships and trust be built between OHCS and people experiencing homelessness?

Conclusion

Our findings indicate that OHCS currently has a prime opportunity to provide leadership for establishing community-centered data and racially-equitable practices in data governance. CoCs are generally supportive and interested in the benefits that collaborative forms of governance could provide to help them share information and better coordinate with one another. CoCs are also looking to OHCS for leadership and capacity building support in equity-driven data practices. Leadership, however, will require OHCS to clearly articulate their goals and purposes for data integration, alongside the boundaries they face regarding collaborative governance. We outline a range of governance options in this report whilst providing detailed discussion of two - community-centered and community-informed -, either of which could enable OHCS to begin to take action towards community-involved, racially just governance models. Either governance option will require careful consideration of what that model will look like in the context of OHCS' organizational and political context. As previously mentioned, the most damage OHCS could do to their external relationships is to make claims about racial equity and collaboration with no ability to meet those goals. As OHCS' next step forward, we encourage careful deliberation with deep internal conversations to identify a realistic and desirable action plan using the questions and recommendations provided as a guide.

References

- Zapata M, Moses B, Mercurio S, Townley G. Regional Supportive Housing Impact Fund report: Equitable evaluation framework and governance recommendations. Heath Share of Oregon. [Internet]. Homelessness Research and Action Institute; 2021. Available from: https://www.pdx.edu/homelessness/equitable-evaluation-framework-and-governance-report
- 2. Culhane DP. The Potential of Linked Administrative Data for Advancing Homelessness Research and Policy. Eur J Homelessness. 2016;10(3):103–26.
- 3. Use Cases & Scenarios: What They Are & More | Inflectra [Internet]. [cited 2023 Nov 21]. Available from: https://www.inflectra.com/Ideas/Topic/Use-Cases.aspx
- 4. Bacastow T. Use Cases in a Nutshell | GEOG 468: GIS Analysis and Design [Internet]. [cited 2023 Nov 21]. Available from: https://www.e-education.psu.edu/geog468/l8 p3.html
- 5. Grainger GL, Gaede E. Making BIPOC Lives Matter: A qualitative analysis of managerial resistance to racial exclusions in US Homeless Systems. Hous Theory Soc. 2023;
- 6. Cronley C. Invisible intersectionality in measuring vulnerability among individuals experiencing homelessness critically appraising the VI-SPDAT. J Soc Distress Homelessness. 2022;31(1):23–33.
- 7. Thomas I, Tweed E. The promises and pitfalls of administrative data linkage for tackling homelessness. Eur J Homelessness. 2021;15(3):175–86.
- 8. Jantz E, Connelley S, Cooper A. Addressing barriers to homelessness data in Illinois [Internet]. University of Illinois System; 2023. Available from: https://indigo.uic.edu/articles/report/Addressing_Barriers_to_Homelessness_Data_in_Illinois/23556627
- 9. State of California. About the California Interagency Council on Homelessness [Internet]. Available from: https://bcsh.ca.gov/calich/mission.html
- Breakey S, DiPinto G. The perspectives of social service participants on consent, privacy of information and data governance [Internet]. Bissell Centre; Available from: https://bissellcentre.org/wp-content/uploads/2018/09/2018.09-Participant-Perspectives-Data-Use-FINAL.pdf

Appendices

Appendix A: Use Case Template

Appendix B: OHCS Internal Interviews and Workshop Findings

Appendix C: HRAC Draft MEMO: OHCS HMIS Data Lake Governance Overview

Appendix D: OHCS Memo: HMIS Data Lake Repository Plan

Appendix E: CoC Interview Findings

Appendix F: OHCS Internal Workshop Overview and Outcomes

Appendix A: Use Case Template

Component	Definition	Prompts
Description	Define the system and its intended use	What is a "data repository"? What is it supposed to do? What features does it have to achieve its goal?
Actors and Goals	Define who will directly interact with the system and what they will use it for. There will likely be various actors with different goals. Identify each actor and their potential goals/purposes for using the system.	Who will use the system?
Actor #1 (Primary)	OHCS (example)	How will OHCS use the system? What are their purposes/needs/goals?
Actor #2		How might various users - CoCs, administrators, others, etc - interact with the system? What are their specific needs/goals?
Stakeholders	Identify others who are not direct users, but have an interest in how the system behaves (e.g. policy makers) and what that interest might be.	These are folks who don't directly use the repository by contributing or accessing data, but have some interest in what it does, how it might work and/or reports generated from the data. Who are these stakeholders? What are their interests in the system?
Basic Flow	Outline the processes by which the repository will work. This includes how OHCS intends to receive, use, and report data. Include who will be involved in decision-making.	How does OHCS imagine that data will be entered into the repository? What will happen to it once it's there? How will decision making occur?
Alternative Paths/Flows (optional)	Variations on the main scenario. This could include how OHCS behavior might change given different events	Consider various alternative scenarios that the repository might be used – For example, a special request from the governor, or how the repository would be used in the absence of a governance committee, or how performance-based contracting would change how the repository is used. How do these alternative scenarios change your initial responses regarding the Basic Flow?

Adapted from (3,4)

Appendix B: OHCS Internal Interviews and Workshop Findings

Approach

Based on conversations between OHCS and HRAC in early 2023, we collaboratively determined it would be beneficial to meet with internal division leads and with division staff to define OHCS' vision of the "data lake" before approaching CoCs/stakeholders (See Appendix C and Appendix D for subsequent memos drafted with visioning and purpose language). HRAC completed 4 interviews with 4 of the 5 division leads identified. Despite several attempts, we were not able to schedule with the 5th lead, or received responses from the 3 consultants suggested. We hosted a workshop on 5/28 with 7 OHCS staff. Additionally, we reviewed two reports relating to the Senate Bill 5512 (2019) Budget Note which outlines initial conversations held with stakeholders in 2020 that provided recommendations for establishing the data lake. The section outlines initial findings from these activities, as of May 2023.

At the time, the vision was for a "data lake." Since these conversations, OHCS focus has changed from a "data lake" to a modernized approach to data sharing using new technologies. Although these results describe input on a "data lake," the content retains relevance for data sharing no matter the form it takes.

Context

The data lake idea has been developed through a series of work since (at least) 2019, but many within OHCS were unaware. The "data lake" concept can be traced back to the Senate Bill 5512 (2019) budget notes that request recommendations for a system of shared homelessness data. In 2020, assessments with stakeholders by ICF yielded a set of recommendations, and established there was interest and general support for moving the data lake forward. Despite this, many OHCS staff were unaware of this history and thought the data lake was a more recent idea. This is important because existing work and conversations with potential data lake partners have generated ideas and assumptions among both partners and OHCS that may not be shared and could be in conflict with each other. A fraught meeting held with CoCs in 2021 underscores that potential stakeholders are coming to the table with different perspectives, concerns and expectations about how data lake sharing would operate.

Shared desire within OHCS to improve homelessness service quality and effectiveness through data. Within OHCS, there is a shared desire to improve data sharing and reporting to improve the efficacy and impact of homelessness services. There is agreement that the data currently being reported is not specific or timely enough to provide in-depth understanding of service implementation and effectiveness. With the current data, it is not possible to obtain a big-picture view of service delivery throughout Oregon, establish gaps in services, or identify

opportunities to better address racial equity. Further, the quality of the data reported varies based on the capacity and technical abilities of HMIS users.

Political climate is increasing pressure on OHCS and stakeholders resulting in a "crisis" stance. The current political context around homelessness is bringing increased pressure and scrutiny to the delivery of homelessness services throughout Oregon. The Governor's emergency order has increased demands for information from OHCS, and likewise, OHCS has changed contracting arrangements with grantees related to data reporting. Participants described OHCS as acting in "crisis mode," and reactively to requests from the Governor's office. This stance is driving action and the "crisis" mentality filters down to impact on grantees as well as OHCS staff.

Potential benefits of the data lake

Potential benefits of the data lake to OHCS are generally clear, but benefits to other stakeholders are not clearly understood or articulated. When asked, most respondents/participants had ideas about how the data lake could improve OHCS functions including identifying service gaps, assisting in quality improvement, and advocating for resources. However, it was very challenging for them to articulate the benefits of the data lake outside of OHCS. Most recognized the need to have a compelling business case to share with potential data lake stakeholders, but could not articulate the case themselves. At the workshop, we specifically asked participants to come up with some ideas as to potential benefits for a range of stakeholders including CoCs/CAAs. Below are some ideas collected from both the workshops and interviews.

Benefits to Policy Makers/Legislature/ Governor

- Improved understanding of delivery and impact of homeless services across Oregon
- Information about service delivery and gaps that can inform future policy
- Information about impact of investment in services

Benefits to OHCS

- Improved understanding of how programs are implemented, how people are served, and efficacy of services
- Ability to identify additional services that are needed.
- Evidence to inform program design and development; shift from developing programs based on assumptions, to and evidence-informed approach that enables hypothesis testing
- Timely, more accurate information
- Efficiencies in data acquisition and analysis
- Improved data and evidence can support OHCS to be more progressive/"activist" in their response

CoCs/CAAs, as understood by OHCS

- CoCs seem to feel restrained by program parameters, OHCS can improve/adapt these if there are evidence-based reasons to do so. This requires better data.
- Ability for OHCS to provide better technical assistance and trainings that support HMIS users
- With better data, OHCS can improve advocacy for funds that support CoC/CAA work

Potential barriers and opportunities

Governance Structure - Shared Power

A data governance structure manages data sharing through policies and procedures. It sets the purpose of data sharing and clearly defines the responsibilities of decision-makers. Through a racial equity lens, data governance involves convening Black, Indigenous, and other People of color and other historically marginalized groups to negotiate decisions, as well as stating how biases inherent in data will be identified and responded to. Our findings about the state of governance for the data lake indicate an interest in racially equitable and community-centered governance. We outline below key areas of growth to achieve this goal:

- OHCS does not have experience with sharing power in governance. OHCS will need to make clear the extent to which they are willing to share power with CoCs/CAAs in decision making. This clarity will allow CoCs/CAAs to understand clearly their position within the governance of the data lake.
- Governance agreements between the State and Tribal Governments will need to be negotiated separately. As sovereign nations with self-determination, Tribal Governments will decide how and when they want to coordinate sharing data with the State and be involved in future decisions about data-sharing. OHCS will need to enter into conversation with Tribal Governments to agree upon the policies and procedures of cross-government collaboration.
- The structure of a potential governance committee was discussed by the SRT, but
 movement toward concretely designing this governance committee has yet to begin.
 OHCS needs to develop concrete policies, procedures, and roles of data lake
 governance, as well as state a clear purpose of data lake governance.
- Whether a governance committee will have decision-making power is unclear. OHCS
 needs to determine whether such a committee is advisory or has any level of authority
 beyond advice.
- The vision for decision-making using a state-wide database carries risks for authoritarianism, wherein those in power assume they know what is best for community members. OHCS needs to strategize for how information from the data lake can and will be used, acknowledging when and how that information is out of OHCS's control. OHCS will need to develop transparency and accountability mechanisms for internal and external monitoring of the uses of data lake information and be prepared to be held accountable for mis-uses of data.

Internal Decision-Making

Decision-making within OHCS will need to be clear so that CoCs/CAAs and other stakeholders can understand how decisions are being made and by who. Clarity and transparency about the various levels of authority within OHCS will also allow CoCs/CAAs and other stakeholders to hold OHCS accountable to the decision being made. Our understanding is that OHCS has identified top-level authority for decision-making, but the various hierarchies of authority remain unclear.

- Internal decision-making is becoming clear. Jill Smith has been identified as a final level of authority.
- An organizational chart indicating who will have touch-points with data lake decisions
 has not yet been developed. OHCS will need to clearly state how decisions about the
 data lake are being made and by whom across the organization.

Repairing Relationships

As mentioned in "context," potential stakeholders may already have been approached or involved in previous discussions about a data lake. These discussions, as well as their existing relationship and experiences with OHCS, will inform their interests and concerns about future participation. Therefore, it's important to consider how stakeholders may approach future conversations including whether trust needs to be built or relationships repaired due to previous actions. Likewise, OHCS should consider their own orientation and motivations to undertake this work, and the role and accountability OHCS can assume to approach future conversations with intentionality.

- OHCS seen as "government" possibly as a burdensome relationships
- Counties are so different across Oregon could result in possible misrepresentation of data and need?
- Data is a value to stakeholders keeps them "relevant"
- People are scared of sharing because data represents human beings

Technical Capacity

Developing new or additional reporting requirements, using unfamiliar software, and hiring staff members and allocating hours to report to the data lake are each extra burdens that accompany the implementation of the data lake. Below we outline key topics to consider regarding the available resources and technical capabilities of HMIS leads across the state.

Not all CoCs/CAAs have the technical knowledge or capacity to collect and report HMIS
data and thus may be burdened to collect and report such data to the data lake. While
OHCS is willing to provide training and technical assistance, the burden will still be
inequitable. OHCS will need to realistically consider the timelines needed to equitably
increase capacities across all CoCs/CAAs.

Data Justice

Data justice addresses the inherent harms and biases involved in data collection and dissemination that is often invisible. Data will need to make visible community-driven needs, challenges, and strengths; be representative of the community; and treat data in ways that promote community self-determination. Data justice was not directly discussed in conversations with staff, however some issues pertaining to data justice were raised, such as ownership, data

collection points, and capturing the right "story" for each HMIS lead. Our findings below indicate ways in which OHCS can move toward data justice at the current stage of implementation of the data lake.

- Feeling that HMIS partners "know how to serve communities best, let us do it"
- OHCS will need to learn about data justice to understand how racial bias impacts data collection, analysis, and interpretation.
- There are limits to what HMIS data can tell us. For example, it does not capture whether individuals or families are doubled up.
- Data reporting requirements for Tribal communities have not yet been discussed with all Tribal Nations. More discussion will be needed to understand what data Tribal Nations are willing to share and how sharing data will benefit their communities.
- Ownership of HMIS data is unclear. Whereas some stated that CoC's owned the data, others felt that as funders, OHCS owned the data. Further uncertainty remains as to whether or not ownership changes once data is entered into the data lake. OHCS will need to work with CoCs/CAAs to determine data ownership.
- Interviewees each had different ideas about what specific data would be inputted into the
 data lake. Questions remain about what data points to collect in the data lake. A
 common set of data input from each CoC seems to be preferable, but which data points
 are collected is uncertain: whether limited to Federal reporting guidelines alone,
 including all collected data points, or assuming a new standard for data collection. OHCS
 will need to negotiate data collection points with CoCs/CAAs directly.
- Some jurisdictions have raised concerns about the ability to control their "story" amid
 data aggregation in the data lake. OHCS will need to determine how to represent these
 stories accurately throughout information dissemination.

Possible risks:

- Government and data sharing can make communities vulnerable may need more thinking about ways to mitigate this this
- Don't know how to approach checks/balances to data sharing
- No conversations within teams about governance
- Difference of opinions about who owns data OHCS because they fund it? Or communities?

Unknowns

- What does power sharing look like for OHCS; Structure Governance
- Willingness to share power?
- Who owns the data? Does ownership change once it's in the data lake?
- How will data be protected? How can it be? What are the limitations to protection?
- What are the roles and responsibilities of each actor?
- How will racial bias impact the HMIS data lake?
- What will the monitoring and evaluation plan for the data lake be?

Appendix C: HRAC Draft MEMO: OHCS HMIS Data Lake **Governance Overview**

Memo developed for OHCS by HRAC

OHCS HMIS Data Lake Governance Overview

In 2019 the Oregon State Legislature included a Budget Note in Senate Bill 5512, requiring recommendations for better understanding the effectiveness of homeless service programs across the State of Oregon. Oregon Housing and Community Services (OHCS), Continuums of Care, Community Action Agencies and other partners identified the needs and agreed upon the vision to implement a state Homeless Management Information System (HMIS) instance and establish a state data repository. The repository will improve data-driven decision making and lead to improved outcomes for individuals and families seeking services in Oregon. COVID-19 temporarily paused this process and now OHCS is working with Portland State University (PSU) Homeless Research & Action Collaborative (HRAC) to confirm current data sharing agreements and develop a data governance structure for sharing homeless data from Oregon's Homeless Management Information System (HMIS) implementations.

Data Lake Vision

The ultimate goal of the data lake is to help the state and its localities best support people who are experiencing or are on the cusp of experiencing homelessness. OHCS views the data lake as an opportunity to understand the complexity of homelessness across the State of Oregon, and to engage all stakeholders in governing how, when, and why that information is collected and disseminated. The ability to provide a statewide understanding of homelessness and inform data-driven processes and decision-making, is dependent upon integrating all homeless data from Oregon's HMIS instances into a centralized system. Data will be de-identified during the upload process into the data repository. The data lake would be used to assess effectiveness of programs and funding streams, reveal gaps in service delivery, identify and eradicate racial disparities in service provision, and increase communication across jurisdictions. The data lake would help demonstrate to policy-makers and the public where the best investments can be made to help people prevent and resolve homelessness.

Current HMIS Data Sharing State

Because of the significant COVID-19 funding that flowed through OHCS, the agency receives HMIS data from stakeholders through contractual requirements connected to state-funded programs. These already existing contractual relationships will act as the foundation for a first phase in data integration into the data lake and serve as a basis for developing a governance structure. This means that the data lake would integrate de-identified HMIS data grantees and partners across the state who are already providing data through other reporting mechanisms.

Data Lake Governance Vision

The governance structure would be driven by the goals of: collaboration, inclusion, racial equity, and learning through contrasting opinions. OHCS has partnered with PSU HRAC to collaboratively engage with CoCs and other relevant stakeholders to explore how to expand the

scope of the data lake, and importantly, how to collaboratively govern shared homeless data and its use. OHCS intends to create an environment that mutually benefits stakeholders and program participants.

Next Steps

OHCS, with the assistance of HRAC, is engaging stakeholders to identify opportunities and barriers to the development of a governance structure. OHCS and HRAC will convene a working group to refine the proposed vision/purpose of the data lake, define the guiding principles, and to establish a structure for ongoing meeting and management of decisions concerning shared data.

Appendix D: OHCS Memo: HMIS Data Lake Repository Plan

Memo developed by OHCS and sent by Jill to CoC's around May 31, 2023

Oregon Housing and Community Services Data Repository Plan

Shared Purpose:

One of the shared goals that brings OHCS and its community partners together is a common understanding that quality data is necessary to inform and improve the critical service delivery efforts for rehousing or preventing homelessness in Oregon. Your partnership is crucial to reaching these goals for the betterment of our shared work - housing Oregonians. We are committed to being a catalyst for community-led solutions that provide lifesaving care every day.

House Bill 2100

The need for and expectations from homeless data were reiterated in House Bill 2100, which included key statutory updates that are changing how we collect and use program data. What are the Key Statutory updates?

- Advances racial equity in homeless services programs: Defines culturally specific
 organization, culturally responsive organization, and culturally responsive services, sets
 performance standards for grantees to engage Oregon's diverse communities, and
 allows access to state dollars for the purpose of addressing disproportionate
 homelessness amongst BIPOC communities.
- Established the Task Force on Homelessness and Racial Disparities to make recommendations on an optimal funding structure for homeless services resources, leveraging the expertise of people with lived experience, urban and rural homeless service providers, Community Action Agencies, and organizations that address the needs of various people experiencing housing instability.

Senate Bill 5512

Senate Bill 5512 called upon OHCS to **improve the mechanism for sharing client and program data** to these ends. The current system for receiving program and client-level data is inadequate, archaic, and time-intensive for both the grantees and the agency. Since publication of, and the work prior to, <u>SB5512 (2019) Budget Note report on Oregon's Homeless Management Information System</u>, the agency is preparing to **shift from receiving manually run disaggregated tables to an automated process**.

Current Landscape

After a three-year delay due to COVID-19 and wildfires, OHCS is back on track to achieve the goals identified in the Senate Bill 5512 Budget Note wherein OHCS and Homeless Management Information System (HMIS) stakeholders identified the program, data needs, and agreed upon the vision to:

- 1. implement a state HMIS instance and
- 2. establish a state data repository.

OHCS achieved the first goal and established the Oregon Multi-Continuum HMIS instance in January 2022. This instance is used by four of the eight Continuums of Care in Oregon.

OHSC continues to work towards the second goal. The data repository will support:

- Assessing program performance,
- Reviewing and visualizing trends across the state
- Identifying disparities
- Informing data-driven program design and investment strategies
- Local research needs and interventions

Next Steps

OHCS has contracted with Portland State University (PSU) Homeless Research & Action Collaborative (HRAC) to **develop the data governance structure for shared homeless data** from sources, including Homeless Management Information System (HMIS) implementations with the **key outcome to breaking down barriers to connecting people with services**.

A state data repository aims to help the state and its localities best support people who are experiencing or are on the cusp of experiencing homelessness. The ability to provide a statewide understanding of homelessness and inform data-driven processes and decision-making depends on integrating all relevant data into a shared platform. OHCS views a state data repository as an opportunity to holistically engage with the complexities of homelessness across the State of Oregon and to engage all stakeholders in governing what, how, when, and why data are shared.

HRAC staff will be reaching out to you in the next few weeks. We strongly encourage you to participate in their process and to help us develop data governance policies and procedures for the statewide data repository.

Appendix E: CoC Interview Findings

Process

Between June and July 2023, HRAC conducted interviews with all CoCs across the state. We spoke with 13 individuals representing 8 CoCs. Additionally, we presented at OHCS' tribal working group and offered to meet with tribal leaders individually. As of now, we are still working with OHCS staff to hear whether there is interest and/or willingness by tribes to participate. Given the findings we present below, it is likely that there is insufficient information for tribal leaders about the purpose and implications of data sharing for them to make an informed decision about whether additional conversations are relevant and timely. Here we report the main findings from interviews with CoC leads.

Table 2: Guiding interview prompts and questions

Question		Prompts/Follow-up		
Topic: I	ntroduction			
1.	Tell me about you, your role/responsibilities, how do you interact with HMIS now? Do you currently share data/with whom?	What is going on now? What is the current situation at the COC?		
2.	Tell me about what you know about the data repository/lake idea?	a. History of awareness/involvement in the 2019 process?		
3.	What are your reactions to the idea?	Benefits: a. Do you see benefits to sharing HMIS data with the State? With other local entities? b. How might it improve action to address racia equity Risks: c. What concerns do you have about sharing HMIS data? What risks are there? [Framing - matching data, aggregating data poses risk to community of color] What risks do you see related to racial equity e. What do you need to see to feel comfortable moving forward?		
Topic: G	Governance			
	ou currently have a governance e/approach for your HMIS data?	a. How does that operate?		
	would you like to see governance for statewide ata sharing work?	 b. Would you want to be involved? c. Meetings: how often, at what points d. Who would you want to see on the advisory board i. Roles for people with lived experience and BIPOC? 		

	ii. Non-HMIS partners?
6. What power would the governance body have?	Willing to be on a committee that makes recommendations only?
7. What barriers do you see to setting up an effective governance committee?	
8. What would you need to see demonstrated to believe that racial equity is leading the governance structure?	f. Models they've seen/liked Examples of Tribal government involvement?
Topic: Data Sharing and Technical Support needs	
9. Do you have goals around data sharing? If so, what are they?	
10. If you were going to design a statewide repository - what would it look like?	a. What would it accomplish? How would it function? (Best case scenario)
11. What would make you comfortable with contributing your data to a repository?	b. What data, with whom, under what circumstances, for what purpose c. (sharing with other entities; who owns data; reidentification)
12. What support might you need to fully participate (best-case scenario) in a new data sharing system?	d. E.g Technical Assistance; Resources for capacity building, Training
Topic: Questions for Tribal Governments	
13. How do you want to interact in a shared governance of a statewide data repository?	
14. What coordinated governance structures do you find work best for shared governance over statewide systems?	

Benefits of data sharing are linked to a governance process

The strongest theme across interviews was a shared desire for better communication: communication between OHCS and CoCs and between the CoCs. The need for communication will be touched on throughout the findings, as it was raised in several contexts. As an overview, CoCs see that communication would enable them to learn from "best practices" and others' experiences; coordinate to improve client experiences and improve data collection and quality; and build relationships with each other. Conversely, inadequate communication stifles progress on both OHCS and CoC goals for data sharing, data quality, and service enhancements.

Critical to the issue of data sharing, the lack of a clear and specific vision for data sharing from OHCS - a "use case" - leaves CoCs with questions including:

- what questions or needs would data sharing address?

- what are the minimum data necessary to answer these questions?
- how will findings be shared and who will have a say in their interpretation?
- who will data sharing benefit and how?
- how will decisions be made about how the data are used to answer new questions or in response to new requests?

Without a clear vision, CoCs cannot fully appreciate or respond with whether they do/don't support data sharing. In general, CoCs seem open to the idea if there are shared benefits that can be realized through the data sharing process. Benefits identified include: using data to gain a better understanding of homelessness trends and to "bust" myths, enhance coordination and collaboration between CoCS, colearning, identify best practices, etc.

In other words, the benefits articulated align with the need for a governance structure that can develop a clear vision for data sharing, provide a mechanism to build relationships across CoCs while considering and making decisions about the use of shared data.

Transparency, trust, and relationship building

Transparency, trust, and relationship building all need to be addressed to facilitate data sharing. Some CoCs described strong, trusting relationships with OHCS. Yet many referenced a history in which top-down decisions from the state have been made without transparency as to the rationale, need, purpose, or drivers behind the decisions. Some referenced a history of poor communication, a lack of listening or perceived disengagement from OHCS which reiterates the need for clear, well-facilitated, multi-directional communication channels.

A major concern relates to how shared data will be presented, how the "story" will be told, who gets to decide that story and whether the CoCs will have any say in how their data is interpreted and used. Several respondents provided examples of how inaccurate or uncontextualized public dissemination of state-level data has previously had a trickle-down effect, jeopardizing trust between the CoC and the local agencies and populations they serve. Some CoCs preferred to analyze and interpret their own data because of their in-depth knowledge of its strengths and weaknesses, and their ability to best represent the data most accurately

CoCs prevailingly want better transparency around how decisions are made, and particularly, how OHCS reports are created and data are handled and interpreted. The interest here is the CoC's ability to replicate OHCS analysis on local data to confirm findings, and/or to be able to provide more interpretive information to OHCS so that all can gain a better understanding of the data and its implications.

Racial Equity

CoCs demonstrated a range of commitments to racial equity within their own organizations, though the majority acknowledged a relatively new interest in racial equity. A few CoCs have well established racial equity departments that serve to ensure that equity values are integrated into program design, delivery, and evaluation. Several other CoCs had recently adopted racial equity plans or had taken equity training courses that so recently impacted programs that impact

analysis is not yet possible. CoCs generally agreed that racial equity was an important value to consider in HMIS data processes, regardless of whether their organizations had committed to racial equity values or not. The growing interest in racial equity suggests that CoCs are supportive of OHCS' interest in applying a racial equity lens to the governance of a statewide HMIS data repository.

Given the range of commitments to racial equity at CoCs across the state, CoCs suggests that OHCS champion racial equity values and provide leadership on the implementation of equity commitments. As the entity coordinating and leading the statewide HMIS data repository, CoCs see an opportunity for OHCS to set a priority for developing equity goals and metrics, set expectations for both qualitative and quantitative program evaluation that consider racial disparities, center evaluative questions on the interests of Black, Indigenous, and other People of Color, and staff or contract with facilitators of color to lead governance deliberations.

Tribal leadership and government coordination for the statewide HMIS data repository was most often a point of uncertainty among CoCs. Most CoCs do not have experience coordinating with tribal governments. Those who were familiar with tribal sovereignty and self-determination urged for tribal leadership in the governance of a statewide HMIS data repository. At a minimum, coordinating with tribal governments needs to occur early and often, with the benefits a statewide HMIS data repository offers tribal governments and communities articulated clearly.

Involving People with Lived Experience

How and when people with lived experience in homelessness are involved in governance was another point of disagreement. CoCs demonstrated an earnest interest in learning from lived experience, but were unsure how to incorporate stakeholders other than CoCs and OHCS. Suggestions for involving people with lived experience in the governance of a statewide HMIS data repository ranged from hosting a separate workgroup for each CoC to convene various stakeholders including people with lived experience to directly involving people with lived experience in regular governance discussions. The wide range of responses suggest that CoCs have a variety of experiences working directly with people with live experiences in homelessness. This is yet another area in which OHCS can champion a conversation and set expectations for engaging people with lived experience in homelessness.

Capacity

While we asked about what CoCs would need to participate in data sharing, answers focused on support for overall capacity needs (time, resources, staff) rather than specific technical training or technical capacity building. CoCs expressed concerns about local partner agencies having the capacity to use HMIS, and in some cases the willingness to use HMIS at all. Additionally, CoCs will be tasked with any additional onboarding or training necessary to increase the technical capacity of local partner agencies, which itself will require more time, staff, and funding. Capacity is most constrained among organizations serving communities of Black, Indigenous, and other People of Color.

The range of experiences local partner agencies have working with HMIS is wide ranging. Some local partner agencies do not have the resources to use HMIS, whether a matter of knowledgeable staff or funding and time to dedicate to HMIS reporting. Other local partner agencies are unwilling to input data into HMIS due to privacy concerns among the communities they work with, such as those serving undocumented immigrants. Understanding whose data is being collected and whose is not, is critical to accurately interpreting data at a statewide level. Further, CoCs relationships with local partner agencies are critical to collecting accurate data. CoCs will need to revisit and in some cases renegotiate data sharing agreements with local partner agencies when transitioning to a statewide HMIS data repository. As additional strains are put on both CoCs and local partner agencies to report HMIS data into a statewide repository, funding allocations for staffing, technical training, and relationship building between CoCs and local partner agencies, can bolster the early stages of implementation.

OHCS will also need to acknowledge and strategize for groups whose data is not reported in HMIS. Further coordination and collaboration with CoCs may be necessary to understand which groups are not represented in the data, and how statewide programs and services can understand and meet their needs without HMIS data.

Concerns around data sharing

Data sharing is not a new practice for most CoCs, as many already have some experience receiving data from local agencies or, in some cases, sharing data to OHCS as part of the multi-CoC implementation. More recently, CoCs have begun to evaluate and develop data sharing across jurisdictions in order to support regional programs and goals. With these new experiences, CoCs are beginning to think about how sharing data across larger systems might operate and what collective goals they may have. Emerging topics include data accuracy and data standardizations.

The quality of data coming into a statewide HMIS data repository is dependent on the ways in which each CoC is using HMIS. Whereas some might only fulfill the federal requirements, others might more closely integrate their program monitoring and evaluation through HMIS. Downstream data collection differences will have an impact upstream, including whether data accurately matches up in aggregation and whether accurate comparisons can be made across jurisdictions. Without full awareness of how data was collected, OHCS may be at risk of misinterpreting data and of being unaware of possible blind spots or missing data.

Coordination from CoCs to discuss HMIS use and data collection can further inform statewide data analysis. A statewide HMIS data repository offers an opportunity to gather HMIS leads together to develop a data plan and negotiate a standardization protocol for reporting HMIS data to OHCS. Coordination and standardization can reduce duplication of data across jurisdictions, improve the quality of data being collected and analyzed, and work toward greater cross-jurisdictional collaboration along the way.

Appendix F: OHCS Internal Workshop Overview and Outcomes

A hybrid online/in-person workshop was held on 5/28 with 7 OHCS staff from various divisions. The purpose of the workshop was to:

- Develop a shared understanding of the vision/purpose of the HMIS data lake
- Explore limitations of the data lake and define boundaries
 - I.e. set reasonable expectations for what the data lake can do and for what purpose
- Define who benefits from the lake, what the benefits are
- Explore how the data lake can improve action to address racial disparities, and identify ways in which misuse could perpetuate racial disparities

OHCS staff participated in several activities to meet these objectives and had the opportunity to discuss their understanding of the Data Lake, concerns about its governance, and consider the kinds of questions it could answer.

Considering the "Boundaries" of the Data Lake

Stacey Matrices are helpful in considering where there is agreement and ability to take action. The questions on the matrix are mapped in relationship to one another, therefore their placement is not fixed but changes in relationship to other questions and as new information is added. The questions presented here are not exhaustive and are temporal, meaning their relevance and placement will change over time as the broader context changes. The purpose of the activity is to consider a group's options at a particular point in time. This activity can and should be repeated over time as the context evolves.

Using a modified "Stacey Matrix," staff brainstormed and mapped common and relevant questions to OHCS services and homelessness. They were asked to consider and map on a continuum both: 1) how complex is the data required to answer the question. Less complex data includes data that exists, that OHCS already has access to, etc. More complex data includes data that does not exist., may exist in systems that OHCS can't access, would require data sharing agreements, etc; 2) whether stakeholders agree this is an important question to answer, or would agree to answer the question. Data matching, for example, represents an issue where it could be difficult to get agreement.

By mapping questions along these continuums, staff consider and negotiate the complexity of the questions asked, how important they are, and how difficult it would be to begin to answer them.

"Simple" questions, as identified in the chart, are questions that may be relatively easy to answer and are expected to be shared concerns among stakeholders. These questions present an easy starting place for discussions and negotiations on how a data lake may improve the quality of data and answers. Questions identified include (ordered from most to least simple):

- How many children are homeless in OR?
- How many homeless people are elderly?

- How many clients are using OHCS funded services?
- How many people who are evicted become homeless?
- How accessible are services to various groups (are there disparities in certain groups in accessing services?)

"Fraught" questions are questions that are problematic either because they require very complex data, or there is disagreement among stakeholders about their importance. These questions are not a suitable starting point for collaboration, as they may likely require substantial work to generate data/study the issue or gain agreement. "Fraught" questions identified include (ordered from least to most fraught):

- What times of eviction prevention measures lead to long-term permanent housing?
- How much does it cost to house someone?
- What barriers are we seeing around stable housing for people with disabilities?
- What proportion of people who are homeless have behavioral health issues?
- How many people are at risk of homelessness or doubled-up?
- Why haven't we ended homelessness?

"Fraught" Agreement-related questions include:

- Where are people living before they are homeless?
- Are tiny homes cheaper than shelter?

"Complicated" questions indicate an area of potential growth and opportunity. They are questions that could be explored via a developed "data lake," combined with strong governance that provides a process for agreement to be negotiated among stakeholders. These questions include (ordered from least to most complicated):

- Are there certain services that help clients remain housed after using? Are there certain services that clients usually still need
- How many formerly homeless people stay housed after they move in?
- How many people in rural areas are homeless?
- What are the comparative housing retention rates according to racial demographics?
- Do people receive services from multiple organizations?
- Where are programs/providers performing more effectively? Can data help us find out about these positive anomalies quicker and thus spread best practices quickly?
- What is the average length of time a person is houseless?
- Are there project types that are more / less effectives?
- What kinds of jobs do people experiencing homelessness have?
- What makes a more effective provider and are there changes to successful outcomes based on regions/ geographic types throughout the state?

"Too complex" questions - like fraught - are questions that require substantial work both data and agreement to answer. The questions appear to involve data matching across systems. As previously mentioned, this activity is time-bound, and the ability to address these questions over time may change. However, at this point they represent a clear boundary as to questions that could be too risky to take on in initial data lake explorations (ordered from least to most complex):

- How many people experiencing homelessness are arrested and how often?
- How much could we save if people experiencing houselessness didn't go to the ER?
- Which CoCs are most effective at housing people?
- What is the likelihood of getting into shelter, getting a voucher, etc in OR vs somewhere else?
- How is data weighed and factored with current need, historic need and past current and future funding? How is this demonstrated in tribal relations?

Exploring Benefits and Possible Harms

Groups brainstormed benefits, harms and risks, and considerations for governance. A summary of the brainstorm and ensuing discussion are provided here.

Benefits:

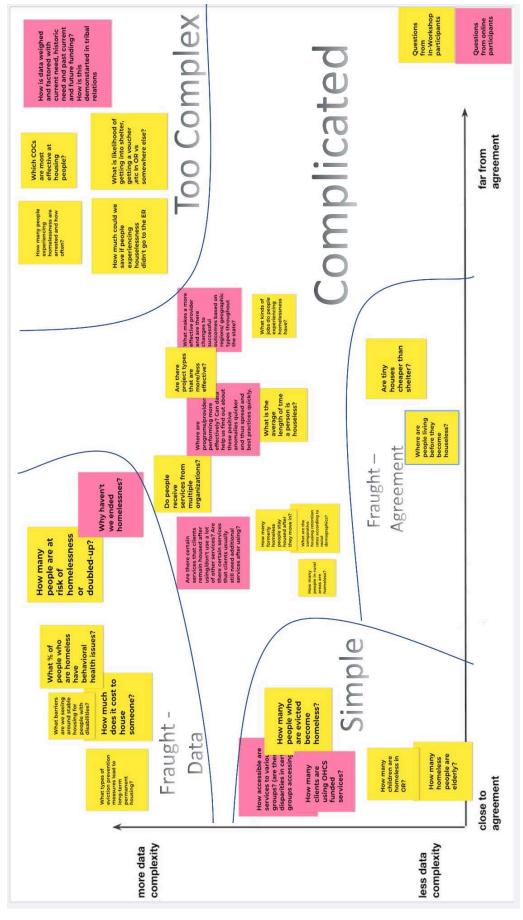
- More comprehensive information for legislature as the state shifts into funding homelessness as a higher priority
- Could directly benefit service providers by providing them with a more complete picture of the whole
- Could benefit communities by using data to help communities tell their own story and to bust myths
- Evaluation of individual programs based on a state-wide approach

Harms/Risks:

- Poor practices in data collection and entry
- People have different ideas of what's in HMIS
- Racially biased data/ algorithms / collection tools
- Elected officials are not consistent actors. Are historically under-resourced communities going to benefit most, or will it just continue to support the status quo?
- Potential future mandate to take data this could be protected by a governance structure
- Communities may be evaluated / preferenced differently based on quality / amount of data they contribute
- Communities misrepresented in the data could be defunded
- No guarantee that the data will tell the right story unless purposefully, carefully presented

Considerations for Data Lake & Governance

- Do we need more data collection in HMIS? Or are different reporting structures needed?
- Specific engagement with tribes / target communities; need to involve in the process
- Service providers can access some data lake information as well as OHCS
- Careful governance required
- Consider: usability / capacity, upskilling for communities to use the data



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Prepared by

Portland State University Homelessness Research & Action Collaborative

PSU-HRAC addresses the challenges of homelessness through research that uncovers conditions that lead to and perpetuate homelessness. Our goal is to help reduce homelessness and its negative impacts on individuals, families and communities, with an emphasis on communities of color.

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