City of Seattle
Mayor Jenny A. Durkan

To: Mayor Jenny A. Durkan
Date: January 29, 2020
Subject: Biometrics Shelter Screening and Digital ID
From: Jason Johnson, Acting Director, Human Services Department

Purpose: Mayor's office requested additional information about Biometrics & Digital ID.

Summary: This memo summarizes the Seattle Human Services Department (HSD) responses to Mayor Durkan's recent questions regarding 1) use of biometric screening in shelters and 2) digital ID platforms. The memo offers outlines of HSD's planning, the pros and cons, any additional analysis needed and recommended actions.

Background: In their 2018 report, National Innovation Services (NIS) advocates for improving "customer outcomes through a comprehensive digital transformation" to address inconsistencies in data collection that require repeated personal disclosures and staff time to access shelters. Two potential ideas to explore are the use of biometric screening into shelters and Digital ID platforms. Both could accomplish an element of the recommended outcome suggested by NIS. NIS did not specifically recommend the use of biometrics, recognizing that there may be some issues with implementing biometric screening technology. NIS recently clarified for HSD that they are not in support of its implementation without significant further engagement with the community to inform decision making. The NIS recommendation may be more consistent with the use of a Digital ID storage system, such as Blockchain being developed in Austin.

Biometrics: Using biometrics in shelters can take the form of fingerprint scans, facial recognition (not under consideration) or other biometric markers matched to an HMIS profile. Like other tools, such as scan cards, biometrics eliminates the need for other forms of manual check-in. Limited communities have implemented biometrics. HSD has only been able to identify New Jersey and San Francisco. Bitfocus, King County's HMIS administrator has reported that across the US, no communities they work in are currently exploring using biometrics. Bitfocus' administration of HMIS does not support data collected from scan technology.

San Francisco implemented finger imaging check-in to shelters more than a decade ago. Their system uses finger imaging, not fingerprints, which is an important privacy distinction. Figure imaging cannot be used for purposes such as background checks. Nevertheless, the implementation of finger imaging would still likely create concern among civil rights advocates.

In San Francisco, their clients have reported a minimal preference for using the finger imaging over verbal identification of DOB and last four digits of the SSN. SF staff said they estimate they will discontinue use of the imaging technology sometime this year, due in large part to Bitfocus' refusal to adapt their HMIS platform to interface with the scan technology. SF's workaround was to link the finger imaging data to a separate data base, which is extremely cumbersome and prone to errors leading to minimal use of the technology in most programs.

In 2018 HSD implemented HMIS scan cards that provide much the same functionality as the finger imaging. Shelter or hygiene center guests receive a unique card with a bar code to use for check-in and service documentation. The purpose is to decrease time for data entry and increase data quality at programs that check large numbers of people into programs and services daily. Catholic Community Services, Compass Housing Alliance, Chief Seattle Club, Nexus Youth and Families, Mary's Place, LIHI, Lake City Partners Ending Homelessness, and The Salvation Army are among the active scan card users at their respective shelter and day-center programs. Programs report the use of scan cards has reduced the staff labor and guest wait time related to data entry. Feedback from programs and participants on the use of scan cards has generally been positive. While there was concern that lost cards would be an issue, most programs have reported that it is not a significant barrier to utilizing the system and loss does not occur as often as anticipated. Additional information on scan cards can be found in the memo HSD submitted to Council in January 2018 in Attachment A

Over the past two years, HSD has purchased approximately $84,500 in scan card equipment for shelter providers. Programs can utilize scan cards at a one-time cost of about $1,200. The only on-going costs are additional scan card blanks and lanyards and any replacement equipment. HSD has also spent approximately $4,000 in technical assistance to support the implementation of scan cards. Based on information from San Francisco and Bergen County, NJ, and conversations with suppliers, the cost to switch to biometric finger imaging would include upfront costs of about $100,000 for the server, about $2,000- $5,000 per shelter for hardware and an annual maintenance fee.

Biometrics Recommendations/Options/Next Steps: HSD does not recommend switching from the scan cards to biometrics. Based on its limited use and conversation with San Francisco it does not appear to provide any greater functionality than the scan cards HSD already uses and would be a significant new cost to set up. HSD will support the Innovation Team, as needed, in any further research. Consideration of implementation of biometrics should include a full engagement of stakeholders, including shelter guests, and a racial equity toolkit or similar tool.

Opportunities	Challenges
• Increases accurate data quality pertaining to individual identification • Reduces check in times for large scale programs • Resolves any potential for loss of scan cards • Finger imaging rather than fingerprints ensures that the image cannot be used for purposes such as background checks and reduces some privacy concerns • Does not allow participants to misrepresent their identity	• The Clarity HMIS system is not currently compatible with biometric screening, thus implementation of any biometric technology would need to be a stand-alone system and not integrated into HMIS. • Conversion to biometrics would require a significant up-front cost as well as on-going maintenance fees, while the scan card technology has already been paid for and the on-going costs are minimal. • Most of the HMIS duplication is due to people opting out of identified profiles and would not be reduced by biometrics. • Advocates may fight implementation • Fingerprint scanning could require a surveillance ordinance review

Digital ID: Blockchain is a type of distributed ledger technology that enables users to record data and transactions instantaneously in a way that is unhackable. A key to understanding blockchain is that each distributed ledger isn't maintained or stored by any one entity but is accessed and cultivated by a number of users. Everyone's changes appear instantly on each user's copy of the ledger and are encrypted in a way so that they can't be changed or deleted. Thus, each new block is permanently linked onto an unbreakable chain.

Beyond the most mature example of blockchain – Bitcoin currency – industries like insurance and banking have also invested in the integration of digital identity management. A digital identity management solution could eliminate the need for providing identification documentation at each point of service, making it easier for individuals experiencing homelessness to access services while protecting their data privacy and providing a more efficient way for service providers to access need-to-know information. The City of Austin is currently developing and testing a minimum viable product for a blockchain-based digital platform that will allow people experiencing homelessness to securely and permanently store, validate, and automatically package and submit information needed to access health and social services.

Digital ID Recommendations/Options/Next Steps: Staff recommends taking three steps to further assess the feasibility of employing a digital identity management solution:

1. Engage Innovation Advisory Council members with expertise in blockchain (Amazon and Microsoft) to understand their expert point-of-view on this potential use case.
2. Work with the Office of Intergovernmental Relations to follow WA Senate Bill 6065 (Establish Washington blockchain work group) and ensure Seattle's participation in the task force.
3. Engage City of Austin staff to understand their learnings and plans for implementation.

Opportunities	Challenges
• There's a need for identification management in our community - in the 2019 Point in Time Count, 27% of respondents identified the lack of identification or personal documents as an issue in accessing services. 11% of respondents identified new identification or paperwork as a barrier in obtaining permanent housing. • Clients have total control over the types of records and the release of those records • Once ID and records are obtained, they can be stored with no risk of future loss • Digital ID systems that store client selected documents do not have as significant privacy concerns as biometric screening for HMIS does.	• Authenticating identity for someone with no existing ID is time consuming to obtain initial records to load into the system • The technological and human capacity to develop, implement, and maintain a digital solution will require resources.

Appendix
• Scan Card Memo

Date: January 30, 2018

To: Human Services, Equitable Development and Renters Rights Committee

Councilmember Kshama Sawant, Chair

Council President Bruce Harrell, Vice-Chair

Councilmember Debra Juarez, Committee Member

From: Catherine Lester, Director, Human Services Department

Subject: Human Services Department Response to City Council Green Sheet 262-1-A-1, a proviso on spending for the Homeless Management Information System scan card project

As part of the 2018 Adopted Budget, the City Council adopted Green Sheet 262-1-A-1 and imposed a proviso on 2018 appropriations for the Homeless Management Information System (HMIS) scan card project pending an assessment of the project, including analysis of its potential effectiveness and compliance with the Health Insurance Portability and Accountability Act of 1996 (HIPAA) and other privacy standards. The Green Sheet requested the analysis include consultation with at least three service or health care providers that serve a diversity of populations experiencing homelessness. Please find the analysis of potential effectiveness and compliance with HIPAA and other privacy standards enclosed.

Summary

In the Seattle-King County Continuum of Care, HMIS is administered by the King County Department of Community and Health Services. As the administrator, King County decided to adopt the use of scan card technology to: 1) provide easier use and enhanced customer service for people experiencing homelessness; 2) decrease the administrative burden for providers who are freed up to interact with clients; and, 3) increase the accuracy of HMIS data collection for high volume programs, including shelters and day centers. Two programs, Compass Housing Alliance and Friends of Youth, piloted the implementation of scan cards in 2016 and provided feedback to improve the success of system-wide implementation. King County determined that scan cards would be implemented throughout the continuum in first quarter 2018.

The King County Continuum of Care maintains strenuous privacy and security protocols to ensure the integrity of data stored in HMIS. In addition to best practice standards for passwords, HMIS uses two-factor authentication, and security training and extensive protocol safeguards.

The process to enter client data into HMIS does not differ for HIPAA-covered entities due to the consent requirement and the rigorous security protocols in place.

Background

HMIS is a database application used by the city and county staff to confidentially aggregate data on demographics and services for persons experiencing homelessness. HMIS data is also used to match people with housing and other resources, measure program effectiveness, identify patterns of service use, and quantify the number of persons experiencing homelessness. HSD uses HMIS data to provide updates to Council questions on the efficacy of city investments, as well.

HMIS participation is a requirement for local communities to receive funding from the Office of Housing and Urban Development (HUD) to serve homeless populations. The City of Seattle and King Country were awarded Continuum of Care funds to address homelessness in the amount of $35,146,190 through HUD's NOFA process in 2017.

Scan Card Project Goals

HMIS scan card implementation is designed to make HMIS easier to use for providers by reducing their administrative burden and improving data quality, and free up agency staff to focus on client-centered interactions.

Improve Client-Centered Interactions: Scan cards will reduce the amount of time clients spend waiting in line to be checked in to shelters and day centers. When they do check in, staff are able to engage them in a conversation and personal interaction, rather than focusing on entering their service

information into HMIS. During the pilot program, Compass Housing Alliance reported that implementing scan cards in their shelter program greatly increased staff interaction with clients and reduced wait times. Salvation Army has implemented scan cards in one of their shelters and reports that it has saved their staff five to six hours a week on data entry, which freed up more time to work with their clients on housing needs assessments and connecting clients with resources. We anticipate similar benefit at all high-volume shelter and day center programs that opt to adopt scan cards.

Reducing Administrative Burden: Currently in our community, staff who work at shelters and day centers manually input in HMIS a daily record of each person that uses their facility. Manual entry involves opening each client's record in HMIS to record their attendance, which can result in long lines of clients waiting to be checked in at shelters and day centers. Scan cards offer a more efficient and person-centered alternative. After a client's record is created in HMIS and their scan card is issued, agency staff can use a wireless barcode scanner to check clients in

to shelters and day centers. The scanning process takes a matter of seconds. Staff can scan clients in while greeting them and engaging in personal connection, rather than from behind the barrier of a computer terminal.

Improving Data Quality: Scan cards also improve data quality by reducing duplicate records in HMIS. Clients can opt to be deidentified in HMIS, which means their name, date of birth and other personally identifying information is omitted from the system. An unintended consequence of deidentification is that individual clients often have different HMIS records at each of the different programs they use. For example, one deidentified client may have separate HMIS records at two different shelters and three different day centers. Records are also duplicated if two programs spell a client's name slightly differently. Scan cards will allow a program to pull up the correct existing profile for a client and enter services, rather than potentially creating a new profile. These duplications skew estimates of the number of people who utilize shelter and day center services in our community, and give program staff an incomplete picture of which resources their clients may be accessing.

Scan card implementation should also improve data quality more generally, in addition to reducing duplicate records through deidentification. Shelter and day center staff sometimes report difficulty maintaining current data in HMIS due to the demanding nature of their work and the high volume of clients. We anticipate that scan cards will resolve this problem by eliminating the need for manual data entry.

Implementation

To ensure that programs were able to utilize scan card technology without incurring additional costs, Council authorized use of 2017 federal Community Development Block Grant (CDBG) funds to purchase HMIS scan card equipment for homeless services agencies in Seattle and King County. The use of this funding for the equipment purchase was authorized by Seattle City Council through the adoption of the 2017 Annual Action Plan of the 2014-2017 Consolidated Plan. The equipment package includes scan card printers and handheld wireless barcode scanners. The printers print durable plastic cards with a barcode; similar to library cards or the cards one might use to check in at a health club. The printers can be used to replace lost or damaged cards at no charge. However, the pilot program found that very few clients lost their cards. The handheld wireless barcode scanners enable shelter and day center staff to intake clients quickly without being behind a computer and entering each service while the client waits to enter the program. The wireless scanners that were purchased have a 30-foot range, allowing them to be used throughout a facility rather than having to be stationed near a computer. Webcams, document scanners and USB ports were also purchased to facilitate scan card use.

Although participation in the scan card project is optional for provider agencies and their clients, 13 agencies in Seattle and King County have opted to implement scan cards

immediately. It is anticipated that additional agencies will opt to use the technology in the coming year. Five three-hour trainings have been planned to give agencies hands-on training with scan cards. The trainings are being coordinated by King County and will be offered starting in February. Participating agencies will be able to pick up their equipment after at least one staff member completes training.

Analysis of Effectiveness

On January 16, 2018, HSD convened a meeting for homeless service providers to share their feedback on scan cards and ask questions about the program. The meeting was attended by staff from 11 agencies including the Accelerator YMCA, Catholic Community Services, Chief Seattle Club, Compass Housing Alliance, Elizabeth Gregory Home, Evergreen Treatment Services, Friends of Youth, the Low Income Housing Institute, Peace for the Streets by Kids from the Streets, the Salvation Army and YouthCare. DESC, Lake City Partners Ending Homelessness, Mary's Place, and Nexus Youth and Families were also invited but were unable to attend. Two of the agencies in attendance, Compass Housing Alliance and Friends of Youth, piloted the use of scan cards over the past year.

Green Sheet 262-1-A-1 also requested outreach with health care providers such as International Community Health Services and Country Doctor Community Health Centers. However, those agencies are not publicly funded for homeless services in our community and subsequently do not use HMIS. Therefore, they are not familiar with the HMIS system and are not candidates for HMIS scan card implementation.

Provider Identified Benefits
Data Accuracy and Easier Intake
Agencies attending the meeting expressed enthusiasm for the benefits of scan card implementation including more accurate data to better reflect their program outcomes; reduced staff time needed for data entry; fewer duplicate records in HMIS and less staff time spent cleaning up duplicate records; and the ability to track deidentified clients across programs for the purposes of connecting them with Coordinated Entry and other housing resources. Other benefits listed by agencies included more accurate data, easier intakes for clients who are not comfortable sharing their names and cannot remember their deidentified HMIS record number, having data available in real time, and freeing up staff from having to manually enter daily attendance data.

Access to Client Housing Assessments
Another system benefit agencies specifically discussed is better access to housing assessment records for deidentified clients. Currently, it is common for deidentified clients to receive services from multiple agencies and to have multiple records in HMIS. Once someone in that situation completes a VI-SPDAT assessment for housing placement, the record of their

assessment and their score is only linked to one of their records in HMIS. Scan cards will link their deidentified records and make their housing assessment score viewable to all of the providers they receive services from. This will help providers support deidentified clients attempting to get placed into housing and prevent assessors from administering multiple VI-SPDATs to the same individual.

Provider Identified Questions and Concerns
Agencies also expressed some questions and concerns about scan card implementation, shared here with analysis:

➢ Youth and young adult (YYA) provider agencies often provide services for both homeless and non-homeless youth in need of services. YYA providers expressed the concern that issuing HMIS scan cards only to homeless youth could be stigmatizing and also expressed that there was no incentive to keep youth and young adults from losing their cards. They offered the solution to include some kind of incentive for scan card participation, such as being able to check out library books with the card. The incentive would make having and retaining the card attractive to all program participants.

> *Analysis: HSD and King County intend to explore potential additional services to link to scan card use in the coming year. Other communities have expanded to allow the card to work in libraries or transit. Participation in scan will remain optional for clients, YYA agencies and all other providers.*

➢ Friends of Youth, who helped to pilot this technology, shared that investing the time to train staff on making and using scan cards may be less beneficial for smaller programs, which have a less significant data entry burden. They also shared that the technology felt somewhat clunky to staff who were not as comfortable with HMIS and that additional staff resources were needed as they learned the process.

> *Analysis: HSD acknowledges that this technology may have fewer benefits for programs with lower participation. The other agency that participated in the pilot, Compass Housing Alliance, is a large provider and implemented scan cards in one of their shelters and day centers. Compass reported that the technology was easy to use, and that scan cards significantly reduced staff time spent on HMIS data entry. Their staff were comfortable with the use of HMIS prior to implementing scan cards, so the addition of technology was not challenging for them. Implementing this tool enabled their staff to spend more time checking in with clients arriving at shelter to assess their well-being and service needs. Most providers requesting to participate in the program at this time are higher participation shelters and day centers, and we believe the program will have significant and immediate benefits for those agencies. Participation in the scan*

cards program is voluntary, and smaller agencies may choose not to participate if they find the benefits are less applicable.

In addition, King County is continuing to provide regular training and support for providers in our community who find the HMIS database technology challenging to use via our HMIS vendor, Bitfocus. Bitfocus offers an email helpdesk, technical support using an online chat feature, regular webinar trainings, and "office hours" to provide agencies one-on-one support with questions. Bitfocus will continue to seek provider input on the content and accessibility of HMIS training opportunities.

➢ Other attendees expressed needing resources to help explain the benefits of this program to colleagues in their agency, requested hands-on training opportunities, and expressed the need for ongoing training resources to troubleshoot any equipment issues arise at individual program sites.

Analysis: Five hands-on trainings are being planned for February and March. The trainings are open to all interested agency staff and will include an overview of the benefits of scan cards staff can share with colleagues. Staff from Compass Housing Alliance have agreed to consult with programs and answer their implementation and program planning questions. In addition, the resources made available through Green Sheet 262-1-A-1 will be allocated to provide ongoing training opportunities and to make staff available to troubleshoot any equipment issues agencies encounter at their program sites.

HMIS Privacy Standards

The King County Continuum of Care maintains strenuous privacy and security protocols to ensure the integrity of data stored in HMIS. HMIS users are required to have a unique username and password. Passwords must be at least eight characters in length, and they must contain an upper and lower-case letter, a number and a special character. HMIS has also just implemented an added security feature called two factor authentication. Users must now select a second way to identify themselves, such as a code emailed to their email address on file, prior to being allowed into the system. This increased security will better protect client data. It also allows users easier access to HMIS from mobile devices so that programs such as outreach workers can enter data in real time.

Each HMIS user is also required to submit a signed receipt of the User Policy and Code of Ethics prior to system access. The User Policy and Code of Ethics outlines individual user requirements designed to ensure data security, such as:

- My username and password are for my use only and will not be shared with anyone.
- I will not use the browser capacity to remember passwords. I will enter the password each time I open HMIS.
- I will only view, obtain, disclose, or use the database information that is necessary to perform my job.
- I will log off the HMIS before leaving my work area.
- I will keep my computer monitor positioned so that persons not authorized to use the HMIS cannot view it.
- I will not transmit confidential client information in email form.
- I will not discuss HMIS confidential Client information on the telephone in any areas where the public might overhear my conversation.

Each HMIS participant agency must also designate a Security Officer to oversee HMIS privacy and security. This individual is charged with assessing HMIS security compliance and must complete an HMIS Privacy and Security training. His or her tasks include conducting security audits for any workstation that will be used for HMIS data collection or entry; ensuring each workstation used for HMIS data collection or entry is adequately protected by a firewall and antivirus software; and completing and signing the King County Semi-Annual Compliance Certification Checklist. The King County Semi-Annual Compliance Certification Checklist, confirms adherence to the following security safeguards:

- An HMIS Privacy Statement is visibly posted at each HMIS workstation.
- Each HMIS workstation computer is in a secure location where only Authorized Persons have access.
- Each HMIS workstation computer is password-protected and locked when not in use.
- Documents printed from HMIS are sent to a printer in a secure location where only Authorized Persons have access.
- Non-authorized persons are unable to view any HMIS workstation computer monitor.
- Each HMIS workstation computer has antivirus software with current virus definitions, and each HMIS workstation computer has had a full system scan within the past week.
- Each HMIS workstation computer has and uses a hardware or software firewall.
- Unencrypted protected personal information ("PPI") – defined as client-level identifying information, including information about names, birth dates, gender, race, social security number, phone number, residence address, photographic likeness, employment status, income verification, public assistance payments or allowances, food stamp allotments, or other similar information – has not been electronically stored or transmitted in any fashion (including hard drive, flash drive, email, etc.).
- Hard copies of PPI (including client files, intake forms, printed reports, etc.) are stored in a physically secure location.

- Each HMIS workstation computer password information, including each Authorized Person's user identification information, is kept electronically and physically secure.

There are also safeguards specific to client consent. All clients must be given a notification form that explains HMIS and why their personal information is being collected, and clients must give written consent to have any personal information stored in HMIS. Client consent forms are currently available on Bitfocus' website in Amahric, Arabic, English, Khmer, Korean, Laotian, Mandarin, Punjabi, Russian, Somali, Spanish, Ukranian and Vietnamese.

If a client does not consent to have personal information stored in HMIS, special data entry protocol is followed. The protocol for entering deidentified records in HMIS includes entering zeros for the social security numbers; typing 'Consent' for the client's first name and 'Refused' for their last name; and entering January 1st for the birth month and day and entering a year that is one or two years older or younger than the client's actual birth year. Currently in our system approximately 30% of participants refuse consent to be identified in HMIS. In addition to clients who elect not to have personal information stored in HMIS, personal information for clients fleeing domestic violence clients, participating in Housing Opportunities for People with AIDS programs and/or unaccompanied minors may not be entered in HMIS under any circumstances.

The process to enter client data into HMIS does not differ for HIPAA-covered entities due to the consent requirement and the rigorous security protocols in place.

The scan card implementation will not impact any of the HMIS privacy and security measures. The scan cards themselves do not contain any information other than the client's name and optional photo (both omitted for clients who do not consent) and a barcode. The barcodes will be scanned to record client attendance when they arrive at a shelter or day center. The record of their attendance is stored in HMIS and not captured on the physical card, so there is no risk of a client's HMIS data being compromised if their card is lost or stolen. If a client or program elects not to use scan cards, the client information will still be entered manually into HMIS.

In addition, Scan Cards may increase client privacy because provider agency staff will no longer need to have a computer with HMIS open at the front desk to check clients in upon arrival. Agency staff will be able to use their barcode scanners to quickly scan clients in upon arrival. During the pilot program, scan cards enabled Compass Housing Alliance to move their computer from the front desk to a secure office in the back of their facility.

A full Privacy Impact Assessment for HMIS is being prepared by Seattle IT, in consultation with HSD, per the specifications in Council Statement of Legislative Intent 287-1-A-1-2018.

This will be delivered to the City of Seattle Governance, Equity, and Technology Committee no later than May 30, 2018.

Next Steps

Ongoing funds will be needed to purchase equipment and provide training as additional agencies opt-in to the program, replenish scan card blanks and lanyards for programs as needed, replace equipment that ages due to routine wear and tear, provide supplemental training opportunities to participating agencies that experience staff turnover, and provide occasional on-site assistance troubleshooting any equipment issues that arise. With Council authorization, HSD proposes that funds under proviso in Green Sheet 262-1-A-1 be allocated for equipment and training needs associated with the Scan Card implementation.

Cc: Tiffany Washington, Division Director, HSI

       Dusty Olson, Strategic Advisor, HSI

       Alan Lee, Council Central Staff