Allegheny Housing Assessment (AHA)

Frequently Asked Questions (FAQs)

August 2020

BACKGROUND

What is the Allegheny Housing Assessment (AHA)?

The Allegheny Housing Assessment (AHA) is a decision support tool that helps the Allegheny County Department of Human Services (DHS) prioritize admissions to housing services (i.e., bridge housing, supportive housing and rapid rehousing) for individuals or families experiencing homelessness. The tool utilizes administrative data from Allegheny County's Data Warehouse to predict the likelihood of three types of adverse events occurring in a person's life if they remain unhoused over the next 12 months: a mental health inpatient stay, a jail booking and/or frequent use (four or more visits) of hospital emergency rooms. These events serve as indicators of harm and are things we would like to prevent. AHA assigns a risk score that is used as part of the housing prioritization process. In addition to prioritizing scarce housing resources, AHA will help Allegheny County to document unmet housing need created by the gap between limited housing resources and the number of high-risk eligible people to fill those resources.

What is Allegheny County's current array of homeless services?

DHS,[1] through a network of service providers across the County, provides a range of services to individuals and families at risk of or experiencing homelessness. These include eviction prevention assistance, landlord mediation, rental and utility assistance, case management and other supportive services, street outreach services, emergency shelter services, and longer-term housing programs including bridge housing, rapid rehousing and supportive housing. The number of available housing beds or units fluctuates throughout the year as newly funded programs begin, programs close or seasonal shelters are open. Each year, on a date specified by the U.S. Department of Housing and Urban Development (HUD), Allegheny County and other jurisdictions across the country conduct a point-in-time count of people who aren't in stable housing (e.g., in shelter, on the street). The results of that count, along with local capacity of beds/units available to serve the homeless, are reported to HUD and are used to inform funding decisions. As of January 2020, Allegheny County has 575 emergency shelter beds, 212 bridge housing beds, 939 rapid rehousing beds and 1,810 supportive housing beds. Some of these beds are targeted for families with minor children, some are reserved for veterans, and some are for young adults ages 18 through 24. Overall, the number of housing beds/units is insufficient for the number of people who are experiencing homelessness and meet HUD's eligibility criteria for long-term housing support.

[1] DHS is designated as Allegheny County's homeless Continuum of Care (CoC) lead agency and as the collaborative applicant for funding through the U.S. Department of Housing and Urban Development (HUD). In this role, DHS also staffs and facilitates the homeless coordinated entry system, which, as required by HUD, is designed to assess individuals/families and determine their priority ranking for long-term housing.

AHA will support the prioritization of bridge/transitional housing, rapid rehousing and permanent supportive housing for clients who need it. Because clients can stay in these programs for a long time, only a fraction of these units become available through turnover in any given year. In 2019, approximately 800 of these housing units became available through turnover as households exited these programs (approximately 200 families and 600 singles), according to household exit records in the County's homeless management information system (HMIS). More than 2,000 households (approximately 600 families and 1,450 singles) experiencing homelessness and determined to be eligible for permanent supportive housing, rapid rehousing or bridge/transitional housing received a risk assessment through the County's homeless coordinated entry system in 2019. Therefore, the County can serve fewer than half of the households (singles and families) experiencing homelessness that it assesses, and a housing gap of approximately 1,200 units existed in 2019. This gap highlights the importance of appropriately prioritizing the most vulnerable households for these limited services.

What is the current approach to prioritizing homeless services in Allegheny County?

Allegheny Link at DHS facilitates Allegheny County's homeless coordinated entry system. Individuals/families experiencing homelessness in Allegheny County are directed to the Allegheny Link to be assessed and prioritized for long-term housing services. For the past several years, DHS has used an actuarial tool known as the Vulnerability Index — Service Prioritization Assistance Tool (VI-SPDAT) to conduct assessments of individuals/families who are homeless. The VI-SPDAT tool asks clients to provide self-reported information about their current situation and past experiences. Examples of assessment questions include: "Have you threatened to or tried to harm yourself or anyone else in the last year?"; "Do you ever do things that may be considered to be risky, like exchange sex for money, run drugs for someone, have unprotected sex with someone you don't know, share a needle, or anything like that?"; and "Will drinking or drug use make it difficult for you to stay housed or afford your housing?" The full VI-SPDAT can be accessed here. This information, along with information about the longevity of a person's homelessness, has been used in the prioritization process.

Why did DHS and its partners consider developing AHA?

Like many communities around the country, our Continuum of Care (CoC) does not have enough long-term housing capacity to serve every person who becomes homeless and meets HUD's eligibility criteria for supportive housing. In other words, the demand for housing is greater than the supply. In the past, housing placement decisions were based on an actuarial tool called the VI-SPDAT, which relies upon self-reported information and is dependent upon a client's memory and willingness to share personal information. Asking people during a housing crisis to provide answers to sensitive personal questions is time consuming, potentially traumatizing and may be inaccurate. We questioned whether housing placement decisions were being made based on the most accurate data and most trauma-informed approach.

In addition to improving housing intake decisions, DHS was looking to develop a data-driven process throughout the service continuum, including using data to test what lower cost interventions might help clients who are not prioritized for housing as well as using data to help drive progressive service engagement and help determine when people may safely transition to more self-sufficiency. This sort of process couldn't easily rely on self-report assessment tools.

WHAT IS AHA?

What is AHA's analytic approach and what does the model predict?

AHA uses a predictive risk model (PRM) to predict the likelihood of three types of events occurring in a person's life if they remain unhoused over the next 12 months: a mental health inpatient stay, a jail booking and frequent use (four or more visits) of hospital emergency rooms. These events serve as indicators of harm if a person's homelessness persists. The model predicts the likelihood of these negative outcomes occurring within one year of contact with the Allegheny Link.

What is a predictive risk model?

Predictive risk modeling (PRM) uses routinely collected administrative data to model future adverse outcomes that, in this case, might be prevented through a more strategic delivery of services. PRM has been used previously in health and hospital settings and, more recently, in child protection and prevention settings (see Developing Predictive Risk Models to Support Child Maltreatment Hotline Screening Decisions).

What data does AHA's PRM use?

The model uses administrative data from the Allegheny County Data Warehouse, including demographics (e.g., age and gender, but not race) and service records (e.g., birth records, child protective services, homeless services, criminal justice, behavioral health and assisted housing). Additional information about the data used in the predictive model and the construction of the model can be found in the methodology report.

Does the PRM use race as a factor?

The predictive model does not explicitly use information on race. This does not mean, however, that other variables in the tool are not correlated with race. There are other predictors that are correlated with race due to potentially institutionalized racial bias (e.g., different policing practices leading to jail bookings) that would imply that race is still a factor. For this reason, the performance of the AHA model was analyzed with respect to the client's race in the evaluation of the model and an extensive independent equity report.The independent equity evaluation analyzed the performance of the tool across racial sub-groups and concluded that they found no evidence of discrepancies in how the tool operated amongst different racial sub-groups.

HARM	AUC OF AHA FOR BLACK PEOPLE	AUC OF CURRENT ASSESSMENT TOOL FOR BLACK PEOPLE	AUC OF AHA FOR WHITE PEOPLE	AUC OF CURRENT ASSESSMENT TOOL FOR WHITE PEOPLE
Mental health inpatient service	84.9%	58.8%	79.8%	56.6%
Jail booking	72.1%	55.4%	72.4%	57.5%
Four or more visits to an emergency department	77.0%	56.8%	74.5%	55.6%

The AHA tool performs similarly in accuracy across the racial subgroups and outcomes but is more accurate with respect to predicting future jail bookings, where it is slightly more accurate for Black subgroups. Additionally, since the prevalence of jail bookings for the Black group is slightly higher (18.1% vs. 17.9%) this additional accuracy will help to not exacerbate racial disparities. With the current assessment tool, we see that the predictive accuracy is less accurate across all outcomes and sub-populations.

If systemic racism limits the ability of Black people to access basic health and wellness services, and as a result leads to Black people having increased usage of crisis services, emergency room visits or jail bookings, this will lead to Black people having a higher risk score. The higher score will give them higher priority on the waiting list for housing services.

AUT conducted an analysis to determine if certain groups may become more advantaged or disadvantaged by the use of AHA. The analysis indicates that Black single households are likely to benefit from the use of AHA compared to the former process, while there is a potential minor disadvantage to Black households with children compared to the former process. DHS and AUT will closely monitor the performance and impact of AHA to ensure that the process is as fair and equitable as possible.

DEVELOPING AHA

DHS issued a Request for Proposals (RFP) in 2014, soliciting plans to design and implement a system of decision support tools and predictive analytics for human services; 15 proposals were received. After review by an evaluation committee, researchers from Auckland University of Technology (AUT), University of Southern California (USC), University of California-Berkeley and University of Auckland were awarded the contract. In 2017, AUT began to assess the viability of a predictive risk model to support homelessness placement decisions, which led to the development of AHA.

Has the local community been involved in the development of AHA?

DHS has carried out an extensive stakeholder engagement process throughout the development of AHA. Stakeholder groups were invited to discuss the work, its implementation and the timeline. Additional information about stakeholder engagement meetings can be found in **Appendix A**. To date, the project team has had discussion groups/meetings with the following groups:

1. Clients experiencing homelessness
2. Local service provider agency direct line staff, supervisors and leadership
3. DHS leadership: DHS senior leadership, including director and deputy directors
4. Allegheny County Homeless Advisory Board (HAB) membership, i.e., the CoC board of directors, executive committee, and membership responsible for planning and policy oversight of the CoC
5. National homelessness experts and researchers from across the country
6. Local funding agencies and foundations
7. U.S. Department of Housing and Urban Development (HUD) representatives

What has the community response been, both positive and negative?

DHS has made presentations to various stakeholder groups and held focus groups with clients. Both have provided an opportunity for people to express both their excitement and their concerns about various aspects of AHA. Overall, response has been positive; most are optimistic that the tool will more accurately predict long-term risk for harm than the current actuarial tool. AHA has also received positive support for how it will shorten the time required to assess clients and eliminate assessment questions that require people experiencing homelessness to restate possibly traumatic information about their history.

There were concerns around how those without sufficient administrative data would be scored by AHA, a valid concern given the transient nature of the homeless population. There were also concerns that information about clients in the Data Warehouse may not be accurate or may not tell the complete story about a person's risk for future harm if they remain unhoused.

Additional information can be found in a report DHS has prepared about the focus groups it conducted with clients experiencing homelessness.

How have you addressed these concerns?

CONCERN	HOW CONCERN WILL BE ADDRESSED
Insufficient information about a client in the Data Warehouse to generate a risk score (AHA score)	DHS estimates that we will not have enough data to run a score in approximately 5% of cases. An alternative, self-report but still predictive assessment tool has been developed for use by Allegheny Link staff. This alternative assessment produces a comparable risk score to an AHA score. For more information on this, see related question on **page 5**.
Inaccurate information about a client in the Data Warehouse that may produce an inaccurate risk score (AHA score)	DHS has implemented quality assurance protocols to ensure that client administrative data in the Data Warehouse is accurate and is similar to historic data used to create the model. These data are regularly monitored by DHS and AUT staff. AHA was designed as a decision-support tool to assist in the assessment process — and to improve its accuracy — but not to replace it. Clinical judgment will continue to inform prioritization decisions. Allegheny Link staff will always have the option of utilizing case conferencing to inform prioritization, if in their judgement the AHA score does not seem to be consistent with the information that the person has shared with the Link staff during their interaction.

How has DHS involved experts from outside Allegheny County in the development of AHA?

DHS has participated in and helped to convene multiple meetings with experts from several fields, including researchers and machine learning experts, homelessness policy and program administration experts, representatives from HUD, cyber law experts, ethicists, and privacy experts. DHS presented on the development of AHA at the October 2018 CityLab meeting, the April 2019 National Human Services Data Consortium meeting, and in a September 2019 meeting convened by Bloomberg Philanthropies, Actionable Intelligence for Social Policy (AISP) and Allegheny County DHS. These sessions provided valuable feedback to DHS across the domains of machine learning, ethical use of algorithms in the public sector, and how advanced analytics such as predictive risk models could most effectively be used in homeless services. DHS is committed to continuing to share updates on AHA to support the field and other jurisdictions working to use advanced analytics for homeless services decision making.

What about harms that are not factored into the AHA, such as domestic violence and other harms?

Although the AHA model does not specifically predict for domestic or sexual violence, every homeless person who contacts the Link is asked a set of assessment questions that include whether the person is experiencing homelessness due to domestic violence. In these cases, individuals are assessed and referred to housing programs that specialize in working with victims of domestic violence, for which the CoC has dedicated beds. As such, victims of domestic violence will continue to receive special prioritization. However, this is an area of need that DHS will continuously monitor once AHA is implemented.

How was the alternative assessment created?

AUT and DHS developed an alternative assessment for use when insufficient administrative data exists for generating an AHA score, rather than using the previously used actuarial tool. In situations when a self-report assessment tool needs to be used, this alternative reduces the number of questions asked of people experiencing homelessness.

The research team analyzed assessments that were used to train the AHA model, specifically client responses to the former actuarial tool to determine which questions were most predictive of the same outcomes as AHA (a mental health inpatient stay, a jail booking and/or frequent use (four or more visits) of hospital emergency rooms in the 12 months following the assessments). The research team generated over 350 features from the VI-SPDAT questions and 14 features from purely demographic data collected during the assessment or previously stored in the Data Warehouse (excluding race). One VI-SPDAT question could generate multiple features. For example, if the answer is "Yes," "No" or "Refused," then the question would generate two features (with one excluded). DHS frontline staff helped to inform the final list of questions for the AHA alternative assessment, and DHS staff updated the wording of these questions to ensure that they are trauma informed. The research team excluded 39 VI-SPDAT questions that Link staff did not want included in the assessment.

The research team built and trained three models (one for each of the outcomes described above) that were ultimately used to develop a single AHA alternate assessment model that produces a score from 1 to 10, comparable to the AHA score. The following table indicates the number of weighted features from each of the three models:

MODEL	COUNT OF WEIGHTED FEATURES
Mental health inpatient service	57
Jail Booking	60
Four or more visits to an emergency department	41

The questions included in three versions of the alternative assessment (singles, families with children, youth singles) are found in **Appendix B**.

IMPLEMENTATION

When did AHA launch?

AHA launched on August 28, 2020.

How will AHA be impacted by the COVID-19 pandemic?

During the COVID-19 pandemic, it is expected that client service patterns across many services in Allegheny County will not follow traditional patterns, including patterns in place with the research data set used to build the AHA model. For example, jail bookings and emergency room visits have declined during the crisis. Therefore, predictors that used recent interactions with these systems would be different from what they were at the time that the research data was extracted and the models were built. The AHA model has been adjusted by the

research team to take these differences into consideration. AUT and DHS will continually monitor the impacts of COVID-19 on the AHA's performance and make changes as needed. We will also issue an early implementation report and revise the methodology paper to reflect changes made to the model.

Can anyone opt out of having AHA used to determine their homeless services priority?

Based on our preliminary evaluation of the predictive risk model and feedback from stakeholders, we believe that AHA more effectively assesses risk of harm than the previously used actuarial tool. Thus, we will use it in all situations where sufficient data are available. As stated previously, Link staff will always have the option of discussing individual cases and prioritizing them for housing if the AHA score does not seem to be consistent with the information that the person has shared with Link staff during their interaction. Within the Allegheny Link data system used for coordinated entry assessment, the generated AHA score will also include a "quality indicator" to indicate whether sufficient client history (at least 90 days prior to the client's assessment) exists in the County's Data Warehouse to generate a usable AHA score. In cases where a quality indicator reveals that insufficient administrative data history exists, the alternative assessment will be used to produce an AHA score.

How will this initiative affect existing service providers?

We do not expect AHA to change anything for existing service providers, as they already receive client referrals for housing programs from DHS (consistent with the CoC's coordinated entry process and with HUD's recommendations and policy requirements). DHS's homeless resource coordinator will continue to match clients from the top of the prioritized housing list with available program slots.

How do you differentiate in terms of priority between individuals and families?

A designated number of units are funded for and available to families and individuals. In each case, a vacancy is filled with the individual or family with the highest AHA score on the prioritized waiting list.

Will the system automatically decide on the recipient of a program vacancy, or simply rank individuals and allow for staff input into the final decision? In other words, how automatic is the decision-making?

The AHA tool will not automatically decide on the recipient of the available service. It will only provide a risk score that will be used to rank individuals or families. DHS's homeless resource coordinator will still be ultimately responsible for making the decision about who is referred to service providers. This is our current business process, and it will remain in place when AHA is implemented.

Will HUD and CoC priorities still be reflected with AHA?

Yes, the homelessness policy priorities of the Allegheny County CoC and HUD will be integrated into the new risk assessment process. Priority will continue to be given to people who are chronically homeless, families with children, transition age youth and veterans. The CoC has programs dedicated to serving these populations, and individuals and families within these populations can also be served by programs that serve the more general population.

Is the AHA score assigned to a person/family permanently?

No, the AHA score represents a score at a given time. If a person has additional contact with Allegheny Link staff, the assessment can be repeated, and the new score will reflect updated and/or additional administrative or other data used in the model. This approach is consistent with current practice, in which a client's VI-SPDAT score can

change based on reassessment. Upon implementation, DHS and AUT will monitor the degree to which client scores change over time and will consider updated business rules, if necessary.

What exactly will be generated, and how and with whom will it be shared?

A score, from 1 to 10, will be generated and used to help prioritize individuals/families on the housing waiting list. DHS staff who operate the coordinated entry process and analyze data related to the system will have access to the score, and the score will be included in the referral sent to homeless service providers. The risk score that is generated will not equate to position on the waiting list, which can fluctuate daily depending on the risk score composition of the waiting list. In focus groups with homeless clients, DHS received feedback from clients interested in better understanding their position on the waitlist. DHS is considering how to improve the way in which this type of information can be shared with clients.

What safeguards are in place to make sure AHA is working appropriately?

DHS is committed to ensuring that AHA is working and will engage in quality assurance throughout implementation and maintenance. We will seek feedback from different sources of on-the-ground knowledge, such as front-line workers, to understand how the model performs on different groups and how the phenomena being modeled might be changing over time. Additionally, given the large number of databases that are being linked in AHA, quality checks and ongoing model maintenance are critical. Our quality assurance systems check that the data being used do not show anomalies (e.g., sudden breaks in the time trend). We also test predictive accuracy by correlating the score to short-term outcomes that we know the score should be strongly correlated to — such as ER visits within a few months of receiving the score.

Will the County improve AHA over time?

DHS is committed to improving AHA over time, following a procedure similar to that which has resulted in several modifications to the Allegheny Family Screening Tool. This will include updating the model and related policies as source systems and variables are revisited, as well as in response to feedback from clients and providers.

ANALYTICS SUPPORTING AHA

Did you externally validate the model?

Yes, an external validation was performed on an untrained model predicting mortality within 12 months of a client's contact with the Allegheny Link. According to our findings, those who were predicted to have high risk (top 10%) had a 3.61 times higher likelihood (95% confidence interval [2.12, 6.16]) of having a reported death within 12 months of their contact with Allegheny Link, compared to the bottom 90% suggesting that the outcomes chosen are a good proxy for harm if left unhoused.

How accurate is the predictive model?

Measuring the accuracy of predictive tools is not simple, but there are some metrics that can provide information about the accuracy of the algorithm, such as the area under the receiver operator curve (AUC), sensitivity and precision.

AUC is a generalized measure of the predictive accuracy of a model. An AUC of 50% means the model's performance is essentially the same as flipping a coin. An AUC of 100% means that the tool can identify people who will suffer the predicted harms perfectly. If measured by AUC, the accuracy of the AHA model for predicting the three outcomes of individual harm is significantly higher than the historic local performance of the previously used actuarial tool (VI-SPDAT).

HARM	AUC OF AHA	AUC OF VI-SPDAT
Mental health inpatient service	83.9%	58.9%
Jail booking	74.4%	56.7%
Four or more visits to an emergency department	78.5%	56.8%

Unlike AUC, sensitivity and precision are defined for a specific threshold, such as individuals in the highest 10% of risk, according to the model. The threshold is often set to align with the percentage of individuals that the program has capacity to serve. Sensitivity measures the proportion of assessments with the future adverse outcome that are picked up in the threshold group by the model (true positive rate). In other words, how good is the tool (at this threshold) at finding those who will have the adverse outcome? Precision measures the proportion of assessments in the threshold group that will experience the outcome in the future (positive predictive value). The AHA predictive models' sensitivity and precision when predicting each harm is summarized in the following table:

HARM	SENSITIVITY OF AHA (TOP 10%)	SENSITIVITY OF VI-SPDAT (TOP 10%)	PRECISION OF AHA (TOP 10%)	PRECISION OF VI-SPDAT (TOP 10%)
Mental health inpatient service	25.5%	6.9%	65.9%	19.4%
Jail booking	18.5%	6.9%	48.4%	19.7%
Four or more visits to an emergency department	19.7%	6.0%	65.3%	21.6%

Sensitivity

The threshold group (top 10%) includes almost a quarter of all individuals who experience the three adverse outcomes. It includes 26% of all mental health inpatient services, 18% of those who experience a jail booking and 20% of those who experience four or more emergency room visits.

Precision

Of the individuals captured in the threshold group (top 10%), around 50% or more go on to experience one of the adverse outcomes: 65% experience mental health inpatient services, 48% experience a jail booking and 65% experience four or more emergency room visits.

In practice, more than the top 10% of clients will be served by the homeless system. While the above mentioned top 10% threshold group is theoretical, the example illustrates the point that if providing housing services is protective of the harms predicted in the AHA model, its use provides an opportunity to considerably reduce these harms for those experiencing homelessness.

How accurate is the AHA alternative assessment?

The AHA alternative assessment was found to be significantly more accurate compared to the previously used actuarial tool (VI-SPDAT) at predicting the same three outcomes in the model. The AUC of the AHA alternative assessment ranges from 70% to 78%. This is slightly lower than the AUC for AHA (ranges from 74% to 84%), but significantly higher than that of the VI-SPDAT (ranges from 57% to 59%).

OUTCOME	AUC OF AHA ALTERNATIVE ASSESSMENT
Mental health inpatient service	78.1% [76.55%, 79.73%]
Jail booking	70.0% [68.17%, 71.79%]
Four or more visits to an emergency department	73.7% [71.96%, 75.4%]

Additional information about the AHA alternative assessment can be found in the methodology report.

Will DHS perform an evaluation of AHA?

DHS intends to engage a researcher(s) to conduct a process and impact evaluation. We expect to issue an RFP in 2021.

DHS thanks Linda Gibbs of Bloomberg Associates for her review of this document.

APPENDIX A: SUMMARY OF AHA STAKEHOLDER ENGAGEMENT MEETINGS

MEETING	DESCRIPTION	DATE
CityLabs 2018 (Detroit)	Meeting of leading homelessness researchers, practitioners and others interested in using advanced data analytics approaches to improve homeless services, including presentations by DHS and other jurisdictions on the use of algorithms to improve homeless services decision making; the forum provided an opportunity for DHS to receive in-depth feedback from national and international experts in the field.	10/29/18
CoC/HAB Provider meeting	Presentation to homeless services provider staff within the CoC, focused specifically on the reasons for developing AHA and early data modeling results.	12/21/18
Allegheny County Continuum of Care/ Homeless Advisory Board (HAB) meeting	Presentation to Allegheny County's homeless system governance board (HAB) about DHS's work in developing AHA, focused specifically on the reasons for developing AHA and early data modeling results.	1/29/19
Health and Housing (H2) Committee	Presentation to the cross-sector Health and Housing (H2) Committee, which meets quarterly to discuss issues related to the intersection of housing and health.	2/28/19
National Human Services Data Consortium (NHSDC) spring conference	Presentation to small group of HUD staff and homeless technical assistance providers, focused specifically on the reasons for developing AHA and early data modeling results.	4/15/19
Advanced Analytics to Improve Homeless Services, hosted by Bloomberg Philanthropies	Meeting of leading homelessness researchers, ethicists, HUD staff, homelessness practitioners and others interested in using advanced data analytics approaches to improve homeless services, including presentations by DHS and other jurisdictions on the use of algorithms to improve homeless services decision making; the forum provided an opportunity for DHS to receive in-depth feedback from national and international leaders in the field.	9/16/19
CoC/HAB Provider meeting	Presentation to homeless services provider staff within the CoC, focused specifically on providing updates on the status of the project and soliciting feedback from homeless service providers.	12/4/19
Allegheny Link staff meeting	Presentation to Link staff to give an overview of AHA, explain how DHS is developing it, describe plans on when/how to implement, and solicit feedback from Link staff.	1/15/20
Focus group with clients experiencing homelessness, with a singles and chronic homelessness focus — Winter shelter/SWES	Focus group session, including an overview of AHA and facilitated discussion to solicit feedback on client perspective of implementing AHA tool.	1/23/20
Focus group with clients experiencing homelessness, with a family homelessness focus — Womanspace East shelter	Focus group session including an overview of AHA and facilitated discussion to solicit feedback on client perspective of implementing AHA tool.	2/6/20
Focus group with clients experiencing homelessness, with a youth homelessness focus — FamilyLinks DOCS shelter	Focus group session including an overview of AHA and facilitated discussion to solicit feedback on client perspective of implementing AHA tool.	2/12/20

APPENDIX B

MEETING	DESCRIPTION	DATE
Focus group with clients experiencing homelessness, with a singles and chronic homelessness focus — Wood Street Commons	Focus group session including an overview of AHA and facilitated discussion to solicit feedback on client perspective of implementing AHA tool.	2/14/20
Focus group with clients experiencing homelessness, with a youth homelessness focus — FamilyLinks DOCS shelter	Focus group session including an overview of AHA and facilitated discussion to solicit feedback on client perspective of implementing AHA tool.	2/25/20
Allegheny County Continuum of Care/ Homeless Advisory Board (HAB) meeting	Presentation to Allegheny County's homeless system governance board about DHS's work in developing AHA, focused specifically on plans for implementation.	5/26/20

APPENDIX B: AHA ALTERNATIVE ASSESSMENT QUESTIONS

Families with Minor Children Alternative Assessment Questions

ASSESSMENT QUESTION	ANSWER
How long has it been since your family had what you would describe as safe and stable housing?	Number of Years, Refused
Do you, or does anyone else in your household, have any sort of income?	Yes, No, Refused
Is there anyone or any organization out there that thinks you owe, or anyone else in your household owes, them money?	Yes, No, Refused
Do you, or does anyone else in your household, have any major chronic physical health issues?	Yes, No, Refused
Has your, or anyone else in your household's, physical health ever put you in a situation where you had to leave a place you were staying?	Yes, No, Refused
Do you, or does anyone else in your household, avoid or wait longer than you should to ask for help when you're sick or not feeling well?	Yes, No, Refused
Have you, or any member of your household, ever had trouble with your housing situation because of something related to your mental health?	Yes, No, Refused
Have you, or any member of your household, ever had trouble with your housing situation because of something related to a past head injury?	Yes, No, Refused
Have you, or any member of your household, ever had trouble with your housing situation because of something related to a learning or developmental disability?	Yes, No, Refused
Has your, or anyone else in your household's, relationship with drugs or alcohol ever put you in a situation where you had to leave a place you were staying?	Yes, No, Refused
Has conflict between anyone in your household or the people you had been staying with caused your housing instability?	Yes, No, Refused
Has a difference in personal beliefs from any other member of your household or the people you had been staying with contributed to your housing instability?	Yes, No, Refused
Has conflict related to your or any other household members' gender identity, gender expression or sexual orientation contributed to your housing instability?	Yes, No, Refused
Has physical violence between members of your household contributed to your housing instability?	Yes, No, Refused
Do you feel that your family's homelessness has been, in any way, caused by any trauma you have experienced in your lifetimes?	Yes, No, Refused
How many times since [current month – 6[2]] did you, or anyone else in your household, receive care at any type of emergency room?	Number, Refused

[2] For this question, staff conducting the assessment ask about events that occurred during the previous six months.

APPENDIX B

ASSESSMENT QUESTION	ANSWER
How many times since [current month – 6] have you, or has anyone else in your household, gone to any type of hospital in an ambulance?	Number, Refused
How many times since [current month – 6] have you, or has anyone else in your household, been admitted to any type of hospital?	Number, Refused
How many times since [current month – 6] have you, or has anyone else in your household, used any sort of crisis service like resolve, a mental health crisis center, a suicide prevention hotline, or a domestic violence support service?	Number, Refused
Do you, or does anyone else in your household, ever do things that others might consider risky?	Yes, No, Refused
Do you, or does anyone else in your household, have anything legal or court-related going on right now that may result in you being put in jail, having to pay fines or restitution, or that make it more difficult to find a place to live?	Yes, No, Refused
How many times since [current month – 6] have you, or has anyone else in your household, had any interactions with law enforcement for any reason?	Number, Refused
How many times have you, or has anyone else in your household, been incarcerated since [current month – 6] where they stayed overnight in a jail or prison?	Number, Refused
Were you, or was anyone else in your household, in jail or a detention center when turning 18?	Number, Refused
When turning 18 were you, or any member of your household, involved with services in the child welfare system?	Yes, No, Refused
Do you have any children that have been removed from your family by the child welfare system within the last 6 months?	Yes, No, Refused
How many children under the age of 18 are you the primary caregiver for?	Number, Refused
How many children under the age of 18 are not currently in your care, but could return to your care within 90 days of you obtaining housing?	Number, Refused
IF THERE ARE SCHOOL-AGED CHILDREN: Do your kids attend school at least half the time each week?	Yes, No, Refused
Do you currently have activities outside of your family's daily survival that you look forward to and enjoy?	Yes, No, Refused

APPENDIX B

Household without Minor Children Alternative Assessment Questions

ASSESSMENT QUESTION	ANSWER
How long has it been since your family had what you would describe as safe and stable housing?	Number of Years, Refused
Do you, or does anyone else in your household, have any sort of income?	Yes, No, Refused
Is there anyone or any organization out there that thinks you owe, or anyone else in your household owes, them money?	Yes, No, Refused
Do you, or does anyone else in your household, have any major chronic physical health issues?	Yes, No, Refused
Has your, or anyone else in your household's, physical health ever put you in a situation where you had to leave a place you were staying?	Yes, No, Refused
Do you, or does anyone else in your household, avoid or wait longer than you should to ask for help when you're sick or not feeling well?	Yes, No, Refused
Have you, or any member of your household, ever had trouble with your housing situation because of something related to your mental health?	Yes, No, Refused
Have you, or any member of your household, ever had trouble with your housing situation because of something related to a past head injury?	Yes, No, Refused
Have you, or any member of your household, ever had trouble with your housing situation because of something related to a learning or developmental disability?	Yes, No, Refused
Has your, or anyone else in your household's, relationship with drugs or alcohol ever put you in a situation where you had to leave a place you were staying?	Yes, No, Refused
Has conflict between anyone in your household or the people you had been staying with caused your housing instability?	Yes, No, Refused
Has a difference in personal beliefs from any other member of your household or the people you had been staying with contributed to your housing instability?	Yes, No, Refused
Has conflict related to your or any other household members' gender identity, gender expression or sexual orientation contributed to your housing instability?	Yes, No, Refused
Has physical violence between members of your household contributed to your housing instability?	Yes, No, Refused
Do you feel that your family's homelessness has been, in any way, caused by any trauma you have experienced in your lifetimes?	Yes, No, Refused
How many times since [current month – 6] did you, or anyone else in your household, receive care at any type of emergency room?	Number, Refused
How many times since [current month – 6] have you, or has anyone else in your household, gone to any type of hospital in an ambulance?	Number, Refused
How many times since [current month – 6] have you, or has anyone else in your household, been admitted to any type of hospital?	Number, Refused
How many times since [current month – 6] have you, or has anyone else in your household, used any sort of crisis service like resolve, a mental health crisis center, a suicide prevention hotline, or a domestic violence support service?	Number, Refused
Do you, or does anyone else in your household, ever do things that others might consider risky?	Yes, No, Refused
Do you, or does anyone else in your household, have anything legal or court-related going on right now that may result in you being put in jail, having to pay fines or restitution, or that make it more difficult to find a place to live?	Yes, No, Refused

APPENDIX B

ASSESSMENT QUESTION	ANSWER
How many times since [current month – 6] have you, or has anyone else in your household, had any interactions with law enforcement for any reason?	Number, Refused
How many times have you, or has anyone else in your household, been incarcerated since [current month – 6] where they stayed overnight in a jail or prison?	Number, Refused
Were you, or was anyone else in your household, in jail or a detention center when turning 18?	Number, Refused
When turning 18 were you, or any member of your household, involved with services in the child welfare system?	Yes, No, Refused
Do you have any children that have been removed from your family by the child welfare system within the last 6 months?	Yes, No, Refused
Do you currently have activities outside of your family's daily survival that you look forward to and enjoy?	Yes, No, Refused

APPENDIX B

Single Youth Alternative Assessment Questions

ASSESSMENT QUESTION	ANSWER
How long has it been since you had what you would describe as safe and stable housing?	Number of Years, Refused
Do you have any sort of income?	Yes, No, Refused
Is there anyone or any organization out there that thinks you owe them money?	Yes, No, Refused
Do you have any major chronic physical health issues?	Yes, No, Refused
Has your physical health ever put you in a situation where you had to leave a place you were staying?	Yes, No, Refused
Do you avoid asking for help when you're sick or not feeling well?	Yes, No, Refused
Have you ever had trouble with your housing situation because of something related to your mental health?	Yes, No, Refused
Have you ever had trouble with your housing situation because of something related to a past head injury?	Yes, No, Refused
Have you ever had trouble with your housing situation because of something related to a learning or developmental disability?	Yes, No, Refused
Has your relationship with drugs or alcohol ever put you in a situation where you had to leave a place you were staying?	Yes, No, Refused
Has conflict between members of your household contributed to your housing instability?	Yes, No, Refused
Has a difference in personal beliefs from any other member of your household contributed to your housing instability?	Yes, No, Refused
Has conflict related to your gender identity, gender expression or sexual orientation contributed to your housing instability?	Yes, No, Refused
Has physical violence between members of your household contributed to your housing instability?	Yes, No, Refused
Do you feel that your homelessness has been, in anyway, caused by any trauma you have experienced in your lifetime?	Yes, No, Refused
How many times since [current month – 6] did you receive care at any type of emergency room?	Number, Refused
How many times since [current month – 6] have you gone to any type of hospital in an ambulance?	Number, Refused
How many times since [current month – 6] have you been admitted to any type of hospital?	Number, Refused
How many times since [current month – 6] have you used any sort of crisis service like resolve, a mental health crisis center, a suicide prevention hotline, or a domestic violence support service?	Number, Refused
Do you ever do things that others might consider risky?	Yes, No, Refused
Do you have anything legal or court-related going on right now that may result in you being put in jail, having to pay fines or restitution, or that make it more difficult to find a place to live?	Yes, No, Refused
How many times since [current month – 6] have you had any interactions with law enforcement for any reason?	Number, Refused
How many times have you been incarcerated since [current month – 6] where you stayed overnight in a jail or prison?	Number, Refused
Were you ever in jail or a detention center before you turned 18?	Number, Refused
When turning 18 were you involved with services in the child welfare system?	Yes, No, Refused
Do you have any children that have been removed from the family by the child welfare system within the last 6 months?	Yes, No, Refused
Do you currently have activities outside of your daily survival that you look forward to and enjoy?	Yes, No, Refused