# WISCONSIN HMIS AND DPI DATA MATCH SUMMARY

11/17/2020

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## MOTIVATION

In 2018, the Wisconsin Interagency Council on Homelessness (ICH) published a 2019-2022 Statewide Action Plan to prevent and end homelessness.  Theme 5: Silo Breaking, created the intention to begin data sharing between DPI and HMIS.

This research project aims to begin this data sharing process by determining how many/what percentage of homeless students are known to their local homeless system and how many are not.  This initial data request serves as a feasibility study to determine the extent to which we can share data across agencies and the potential value in both this and continued research studies.

The Wisconsin Interagency Council on Homelessness believes the ability to compare data on which individuals were served by school districts, COC-funded homeless programs, or both, is vital to truly understand the homeless and housing insecurity picture around the state.

We know that experiencing homelessness can have a negative impact on educational achievement.  This research will help us determine the extent to which school-aged children experiencing homelessness are not identified by their homelessness liaison as well as the extent to which students experiencing homelessness have not been connected to homelessness resources within the CoC/community.  From there, we will determine if future data sharing projects can help eliminate gaps.

## RESULTS

In school years 2018-19 and 2019-20 (up to May 26th, 2020), DPI data identified 28,164 students who experienced homelessness.[1]  A large majority, 81%, were identified in doubled-up situations.

From 6/1/2018 – 6/1/2020, 6,107 youth experiencing homelessness (ages 5-18) were served by HMIS providers.

3,516 students were identified in both datasets. This means 58% of all HMIS clients had also been identified as experiencing homelessness by DPI, while 42% (2,591 youth 5-18) had not.

***2,591 youth 5-18 identified as experiencing homelessness in HMIS were NOT found in the DPI dataset.***

88% of DPI clients were not identified in the HMIS dataset.  As previously mentioned, doubled-up situations are not included in HMIS, and over 80% of students identified as experiencing homelessness by DPI were doubled up.

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[1] 403 records with no names or dates of birth recorded have been excluded from this count.

Of these doubled-up students, 1,249 (6%) were served by projects in HMIS at some point between 6/1/2018 – 5/30/2020.

DPI identified 3,834 students in emergency shelter, transitional housing, or in unsheltered situations.  Of these students, 49% were represented in the HMIS dataset.

53% of unaccompanied youth (identified as not doubled-up by DPI) had services from HMIS projects. (The 509 unaccompanied, non-doubled-up youth accounted for 13% of all unaccompanied youth [3,819] identified by DPI.)

## MATCHES BY REGION

Do some regions have more overlap than others?  To answer this question, we looked at the school district county associated with DPI records and the Provider Local CoC code associated with providers in HMIS.

### PERCENT OF DPI YOUTH CAPTURED IN HMIS

DPI matches by region are available at the county level.  For this section, we restricted the DPI data to those students with a primary nighttime residence that was NOT doubled-up.  The best HMIS coverage was in the following regions:

- Bayfield County: 57%
- Pepin, Sawyer, and Brown Counties: 50%

The worst HMIS coverage was in the smallest regions.  These counties had very few students (1-25) reported as experiencing homelessness, and none of those students were captured in HMIS: Ashland, Buffalo, Calumet, Clark, Crawford, Door, Green, Lafayette, Oconto, Taylor, and Washburn.  No students were identified by DPI as experiencing homelessness in Florence, Marquette, Iron or Price counties.

### PERCENT OF HMIS YOUTH CAPTURED IN DPI DATASET

HMIS matches by region are available at the local CoC level, as some homeless service providers serve multi-county regions.  This section restricted HMIS data to youth 5-18 served from 6/1/2018 – 5/30/2020, looking for matches within the DPI data set (all primary nighttime residences included.)  The best DPI coverage was in the following regions:

- Brown County: 73%
- Fox Cities (Calumet and Outagamie): 72%
- Ozaukee: 67%
- Winnebagoland (Fond du Lac, Winnebago, Green Lake): 62%

The lowest DPI coverage of clients served by HMIS providers was in the following regions:

- Northwest (Ashland, Bayfield, Douglas, Iron, Price): 18%
- Jefferson: 33%
- Rural North (Burnett, Clark, Rusk, Sawyer, Taylor, Washburn): 34%

## NEXT STEPS

These data will be presented to the Wisconsin Interagency Council on Homelessness Working Group.

Opportunities for Further Research:

- What services did the folks in HMIS who weren't in the DPI dataset receive?  What are their ages?  Were youth receiving RHY services more or less well represented in the overlap?  RHY programs complete a "Last Grade Completed" element – were many of these clients no longer connected to school?
- Are some of the HMIS folks who don't get identified as homeless by school just receiving motel vouchers for a night or two?  Are some of these episodes of homelessness identified in HMIS occurring during summer and resolving before students return to school in fall?
- Are there commonalities between school with the highest % of HMIS youth captured by DPI?  With the lowest overlap %?

## METHODOLOGY

### DATA SOURCES

#### HOMELESS MANAGEMENT INFORMATION SYSTEM (HMIS): YOUTH 5-18 EXPERIENCING HOMLESSNESS

Wisconsin HMIS is a database which contains client-level data on approximately 80% of homelessness programs in the state of Wisconsin including emergency shelters, transitional housing projects, and permanent housing projects for persons experiencing homelessness.  The Institute for Community Alliances administers the HMIS database for the state of Wisconsin.
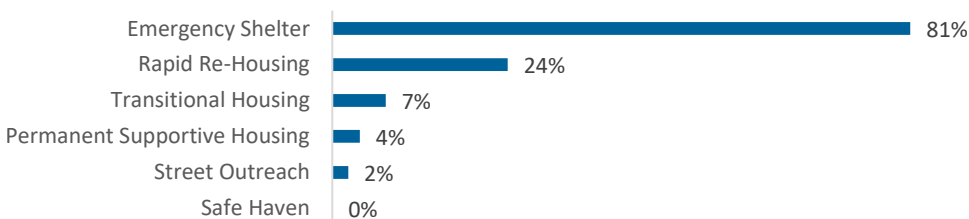
For the purposes of this data matching project, we defined "experiencing homelessness" from HMIS as enrollment in one or more of the following project types:

- Emergency Shelter
- Transitional Housing
- PATH, ESG, and City-funded Street Outreach
- Rapid Re-Housing (entering only)
- Permanent Supportive Housing (entering only)

HMIS data was pulled for clients served in the project types above from 6/1/2018 – 5/30/2020.

6,131 youth ages 5-18 were served by HMIS providers during this time period.

## Youth 5-18 Served by Project Type

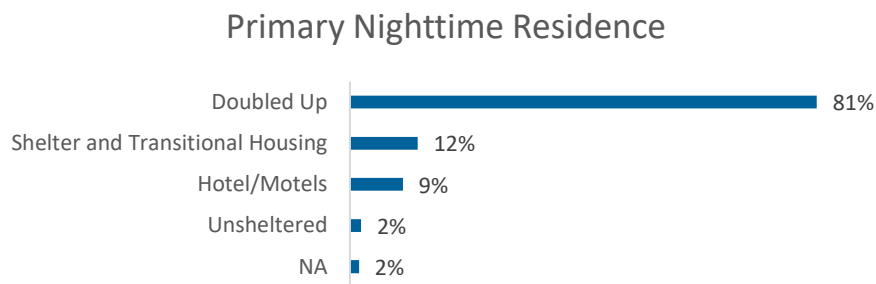| Project Type | Percentage |
|---|---|
| Emergency Shelter | 81% |
| Rapid Re-Housing | 24% |
| Transitional Housing | 7% |
| Permanent Supportive Housing | 4% |
| Street Outreach | 2% |
| Safe Haven | 0% |

## LIMITATIONS OF HMIS DATA

Approximately 20% of homelessness programs in Wisconsin are not included in the HMIS database, and these projects are not evenly distributed throughout the state.

## DEPARTMENT OF PUBLIC INSTRUCTION (DPI) DATABASE: STUDENTS EXPERIENCING HOMELESSNESS

The Wisconsin Department of Public Instruction provided ICA with a dataset of students from school years 2018-19 and 2019-20 (up to May 26th, 2020) who were part of the DPI Education for Homeless Children and Youth Program OR were identified as homeless in their main student characteristics database.

During this period, DPI data identified 28,164 students who experienced homelessness.  Their primary nighttime residences were:

## Primary Nighttime Residence

| | |
|---|---|
| Doubled Up | 81% |
| Shelter and Transitional Housing | 12% |
| Hotel/Motels | 9% |
| Unsheltered | 2% |
| NA | 2% |

## LIMITATIONS OF DPI DATA

Though the database allows for many responses to "primary nighttime residence" per student, in most cases primary nighttime residence is recorded for each student just once, or only a few times.  Someone recorded as doubled-up may eventually move to another primary nighttime residence without an updated database record.

## LIMITATIONS OF DATA MATCH

The definition of homelessness used by agencies participating in HMIS is much more limited than the definition used by DPI.

DPI includes students who are doubled-up (living with family or friends in a likely-overcrowded unit) or living in a self-paid hotel or motel in the definition of homelessness, while HMIS definitions do not.

## MATCHING PROCESS

The Wisconsin Department of Public Instruction provided ICA with a dataset of students from school years 2018-19 and 2019-20 (up to May 26th, 2020) who were part of the DPI Education for Homeless Children and Youth Program OR were identified as homeless in their main student characteristics database.

HMIS data was pulled for clients 0-22, served by homelessness programs from 6/1/2018 – 5/30/2020.[2]

These two files were analyzed via R script to identify the number of matching records between them. Records that matched on first name, last name, and date of birth were included. A fuzzy matching algorithm (generalized Levenshtein distance) was applied to cases with matching first name and date of birth but different last name, and cases with matching last name and date of birth but different first name.[3] Partial matches passing a pre-determined threshold were also included in the results.

Matches were then exported to Excel for additional analysis, with formulas verified in R.

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[2] The data match was performed both for the dataset of clients 0-22 and limited to youth 5-18. In an effort to identify all school-aged children served by HMIS providers, clients 5-18 is a good estimate. However, extending the matching criteria to include all clients 0-22 produced an additional 353 matches. We have elected to include these matches in the final results.

[3] For more information on this algorithm, see the adist() and agrep() functions in R. Names with 5 or more characters were allowed a maximum distance of 15%. If one record included an initial only, that initial needed to match the first character of the other record. For names with 2-4 characters, exact substring matches or strings differing by a single letter were included.