



Consumer Housing Satisfaction and Treatment Outcomes



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Introduction

As part of the 2014 annual adult consumer survey, a sample of 7,994 adults with serious mental disability (SMD) received a housing perception survey adapted from the SAMHSA Housing Satisfaction Scale¹. The Housing Perception Survey (HPS) was administered with the Mental Health Statistical Information Program (MHSIP) survey, which is used annually to measure National Outcome Measures (NOMS) required by the Substance Abuse and Mental Health Administration (SAMHSA) Mental Health Block Grant. The purpose of the HPS administration was to learn more about consumer living arrangements, level of satisfaction with current housing, and to explore possible relationships between living arrangements, satisfaction, and self-reported treatment outcomes.

Instrumentation

The HPS used a 6-item Likert scale to rank respondents' agreement with 15 statements concerning housing choice, safety, privacy and convenience. Respondents ranked statements with "strongly agree," "agree," "neutral," "disagree," "strongly disagree," and "does not apply." The HPS also asked participants to categorize their current living arrangement based on definitions for independent and residential housing. Respondents could also check "other" and describe housing arrangements that did not fit the independent or residential housing definitions. Cronbach's alpha for the current response set is .89. A copy of the Housing Perception Survey is found in items 41 through 55 in the consumer survey located in the Appendix to this report.

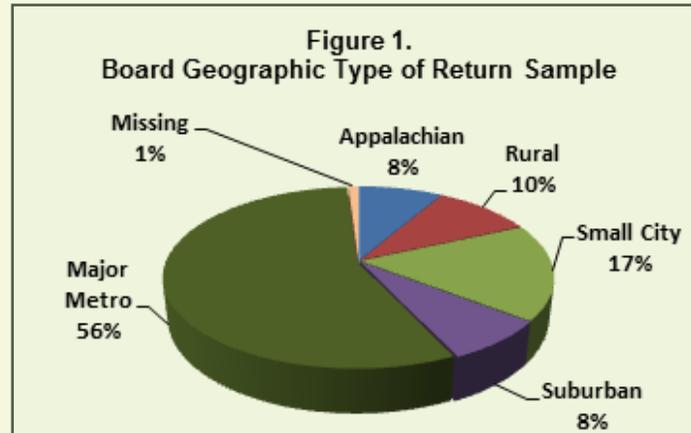
The MHSIP also uses a 6-item Likert scale to rank respondents' agreement with 36 statements associated with seven subscales covering general satisfaction with services, access to care, quality and appropriateness of services, participation in treatment, and self-reported treatment outcomes such as quality of life, functioning, and social connectedness. A copy of the MHSIP Adult Consumer Survey is found in items 1 through 36 in the consumer survey located in the Appendix to this report.

Return Sample

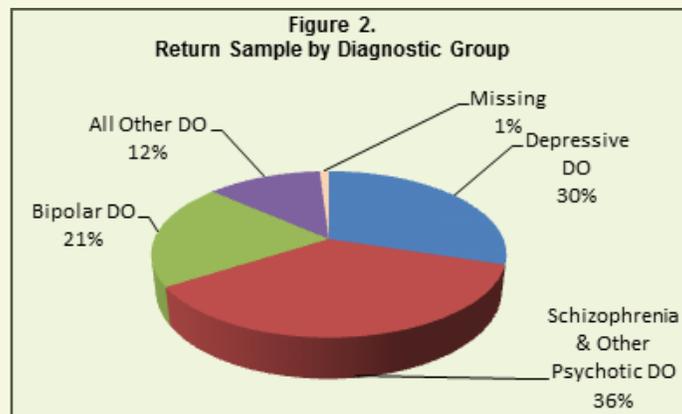
The sample was stratified by race and board demographic type. The return sample of 1,208 completed HPS surveys was 26.8% African-American or Black, 71.4% Caucasian or White, and .7% Other racial groups. Board geographic classification of the response sample was 8.4% Appalachian, 9.9% Rural, 17.2% Small City, 7.5% Suburban, and 56% Major Metropolitan. One percent of cases were missing data on racial and board geographic groupings. Return sample stratification on race is representative of the FY 2013 adult population of 108,058 with SMD. The board geographic type distribution of the return sample was not representative of the FY 2013 service population. Rural, Small City and Major Metro board types were over-represented in the return sample, while Appalachian and Suburban board types were under-represented. See Figure 1 for Board representation in the sample



¹Tsemberis, S., Rogers ES., RDis, E., Dushuttle, P. and Skryha, V. (2003). Housing Satisfaction for Persons with Psychiatric Disabilities. *Journal of Community Psychology* (31:6), 581-590.



The return sample was 60.5% female, 39.5% male, with a mean age of 47 years. The sample had a slightly higher proportion of female and lower of male respondents than found in the SFY 2013 adult service population with SMD, which was 58% to 42%, respectively. The youngest survey respondent was 17.6, and the oldest was 86.3. Respondents were about 5 years older than the average age of 42 for the adult service population. Figure 2 shows the distribution of the sample by diagnostic group, with schizophrenia and other psychotic disorders the largest percentage (36%), followed by respondents (30%) with depressive disorders and those with bipolar disorder (21%).



Other information extracted from administrative databases included whether the respondent was a recipient of Residential Supplemental Support (RSS; Yes = 134; No = 1062) or had a claim for residential service (Yes = 189; No = 1007) and whether the respondent was “new” to services in FY 2013 (Yes = 279; No = 917) or had received services in FY 2012 (Yes = 917; No = 978). Information collected from the MHSIP included a yes/no question about whether the respondent was currently receiving services (Yes = 1075; No = 74). One percent of the first three variables’ data are missing. Just under 5% of the current service receipt variable’s data are missing. Sample distributions on these variables are shown in Table 1.

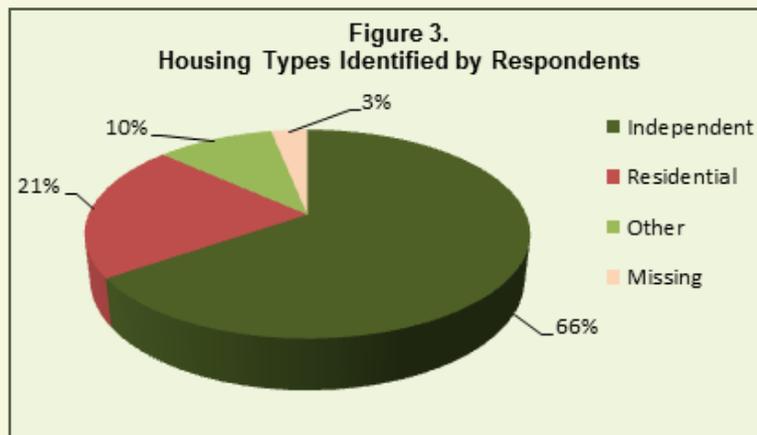


Measure	Yes	No
RSS Recipient	11.1%	87.9%
Residential Service Claim	15.6%	83.4%
New in FY 2013	23.1%	75.9%
Currently Receiving Services	89.0%	6.1%

Housing Perception Survey Results: Housing Type



Respondents' classification of Housing Type as defined by the HPS survey resulted in 790 (66%) identified as living in Independent housing, 257 (21%) living in Residential settings, and 123 (10%) indicating Other living arrangements. Thirty-eight of the surveys were missing a response to the question. Figure 3 illustrates the percentage of cases in each living arrangement category. Other Ohio sources^{2,3}, of information on the living arrangements of public mental health consumers estimate between 80% to 90% live in independent housing. This suggests the sample is not representative of the service population on living arrangement and may be over-represented by respondents with residential housing.



Those who checked the Other box had the option of writing in a description of their housing situation. Surveys with written responses in the Other category fell into three groups: Those living with relatives or friends, those living in agency owned apartments, and those with vague or undecipherable responses (e.g., "I'm P.O.A., not able to pay my own bills." "No money." "There is no description to describe to you.") Of the 123 surveys indicating

² Ohio FY 2013 Block Grant Report, URS Table 15. Living arrangement estimates extracted from OHBH client-level information system.

³ QDSS Medicaid FY 2013 estimate for adult mental health consumers served by providers in the public mental health system.



an Other housing type, 66% (N = 81) said they were living with a family member or friend. In some of these cases, the respondent indicated s/he was paying rent and felt secure in the living arrangement, while others indicated they were functionally homeless: *"I live with a friend which he want to put me out I have no income and nowhere to go."* *"Homeless—staying with friends."* Four respondents in the Other category wrote *"Homeless"* or *"Shelter."* About 8% of respondents said they were living in situations where their treatment provider was the landlord. There was no indication these were supervised living arrangements. One respondent wrote *"Permanent Supportive Housing."*

A cross-tabulation of Housing Type and whether the respondent was New to Services in 2013 indicated that a disproportionate number of cases in the Other Housing Category were New to Services and had not received services in SFY 2012. The distribution of New consumers was 9% in Residential housing, 27% in Independent, and 34% in Other living arrangements. A Chi-square test of significance ($\chi^2 = 42.102, df = 2$) indicated the probability this distribution occurred by chance was less than $<.0001$.

A cross-tabulation of Housing Type and whether the respondent was no longer receiving services indicated that 7.3% (N = 55) of those with Independent housing, 3.7% (N = 9) with Residential housing, and 8.5% (N = 10) with Other housing were no longer receiving care. This distribution was not disproportionate. The distribution of housing types by diagnostic group suggests that the most disabled—persons with schizophrenia and other psychotic disorders—are the majority of persons (68.5%; N = 176) reporting Residential housing as their living arrangement. (See Table 2.)

Table 2. Distribution of Housing Type by Diagnostic Group

Measure	Residential	Independent	Other
Schizophrenia & Other Psychotic Disorders	68.5%	26.6%	19.5%
Depressive Disorders	14.0%	35.4%	32.5%
Bipolar Disorders	9.7%	24.7%	23.3%
All Other Disorders	7.4%	11.9%	27.6%

Of the 175 persons with Schizophrenia living in Residential housing, nearly two-thirds (N = 105) were RSS recipients. Distribution of housing types by funding source indicated 42.4% (N = 109) of the Residential group were RSS recipients and 26.5% (N = 67) received local Residential service funding (N = 68). Funding source for the living arrangement of the remaining 31.1% (N = 80) in the Residential group is unknown. (See Table 3.)

Table 3. Distribution of Housing Type by Funding Source

Measure	Residential	Independent	Other
RSS	42.4%	.8%	2.4%
Residential Service	26.5%	12.8%	8.9%
Unknown	31.1%	86.5%	88.6%

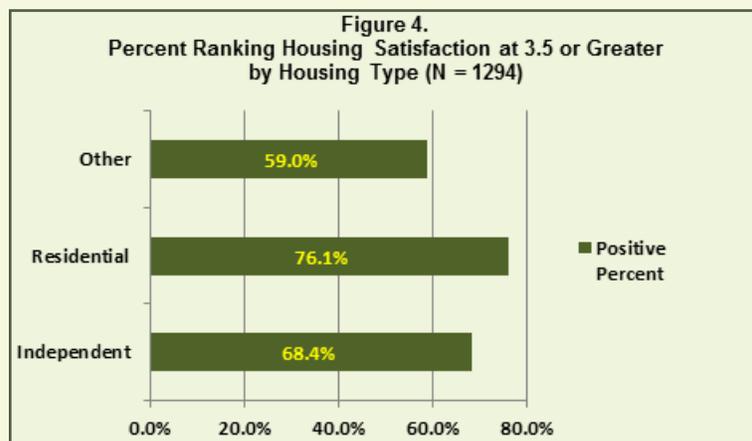


Table 4 provides information about the relationship of funding sources--particularly RSS and Residential service--to various living arrangements. As the table shows, the majority of RSS (92.4%) is associated with the Residential housing, while the majority of Residential service (56.1%) is associated with Independent housing.

Measure	RSS	Residential Service	Unknown
Independent	5.1%	56.1%	78.3%
Residential	92.4%	37.8%	9.2%
Other	2.5%	6.1%	12.5%

Housing Perception Survey Results: Item Scores

The 15-item HPS scale was scored by calculating means for cases that had at least 10 of the 15 items ranked. (Not Applicable responses were treated as missing data.) Positive mean percent for the overall scale was calculated by identifying cases with scale means of at least 3.5 or higher. Resulting positive mean percent for the three housing groups are displayed in Figure 4. Results show that the most satisfied respondents in the sample are those who identified their housing type as Residential, followed by respondents with Independent and Other housing types.



The Likert scale responses for survey items 1 through 15 were recoded so that responses marked “strongly agree” and “agree” were grouped as “positive”, those marked “neutral” remained “neutral”, those indicating “strong disagree” or “disagree” grouped as “negative”, and “Not Applicable” remained “NA”. Responses with housing type

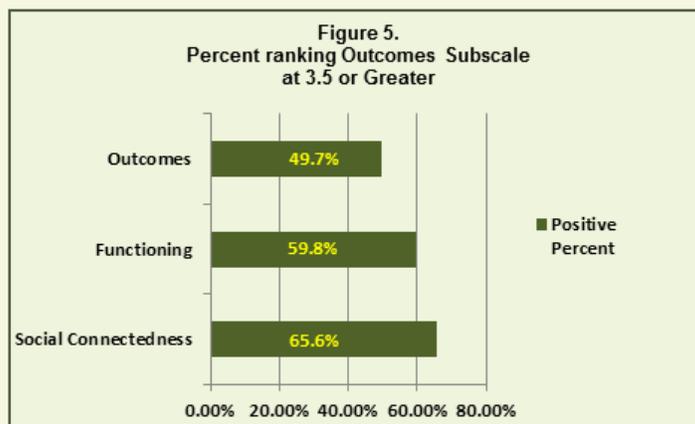


missing were removed from the analysis. The majority of responses were in the “positive” category, although percentage of positive, neutral, negative or not applicable responses on each item varied somewhat by the respondent’s housing type. Respondents with Residential housing reported the highest positive percentages on 12 of the 15 items. Response rankings for each of the 15 survey items are shown for the three housing types on page X.

Housing Satisfaction and Treatment Outcomes



Mean scores for self-reported outcome scales from the MHSIP were calculated to determine what, if any, relationship might exist between housing satisfaction and treatment Outcomes (Quality of Life), Functioning, and Social Connectedness. (See MHSIP items 21-28 for Outcomes, item 28 through 32 for Functioning, and items 33-36 for Social Connectedness.) MHSIP subscale means for Outcomes, Functioning, and Social Connectedness were calculated in the same manner as the HPS means, where cases missing responses to more than one-third of the subscale’s items were eliminated from the analysis and not applicable responses were treated as missing data. Positive percentages of the three subscale means for the sample are shown in Figure 5.



The highest percentage of respondents reported positively on Social Connectedness, followed by Functioning and Outcomes (Quality of Life).

Housing satisfaction scores were regressed on Outcomes, Functioning, and Social Connectedness scores after controlling for gender, age, race, ethnicity, diagnostic group, board type, length of service receipt, current service receipt, indicators of residential subsidy benefits, and housing type. In the regression on Outcomes, a significant model emerged in which housing satisfaction explained 27.5% of the variability (R²) in the model, with total R² = .320, $F(19,1110) = 28.91, p < .001$. In addition to the housing satisfaction coefficient ($\beta = .654, p < .001$), Independent housing type ($\beta = -.141, p < .05$) emerged as a significant predictor of lower Outcomes scores, and active current service receipt ($\beta = .181, p < .05$) emerged as significant predictor of higher Outcomes



scores. In the regression on Functioning, housing satisfaction explained 23% of the variability (R^2), with the total $R^2 = .281$, $F(19,1112)=24.24$, $p < .001$. In addition to the housing satisfaction coefficient ($\beta = .643$, $p < .001$), current service receipt ($\beta = .306$, $p < .01$) emerged as a significant predictor of Functioning scores. In the regression on Social Connectedness, housing satisfaction explained 30.3% of the variability (R^2), with the overall $R^2 = .356$, $F(19,1112) = 32.36$, $p > .001$. In the Social Connectedness model, Independent housing type ($\beta = -.166$, $p < .05$) emerged as a predictor of lower Social Connectedness scores. The housing satisfaction coefficient on the regression model was $\beta = .794$, $p < .001$

In this particular survey sample, factors associated with independent housing appear to be associated with lower self-reported quality of life. The relationship between housing type and low scores on Outcomes (Quality of Life) is illustrated in Figure 6, where those reporting Independent housing report the lowest positive percent, while those with Residential housing report the highest positive percent on Outcomes.

Housing Satisfaction: Explanatory Variables

Housing Type, evidence of residential subsidy benefit, length of service receipt and current service receipt, gender, age, race/ethnicity, board geographic type and diagnostic category were entered into a linear regression on housing satisfaction to determine which variables, other than treatment outcome scores, would explain variability in mean scores. MHSIP Outcomes, Functioning, and Social Connectedness scores were not entered into the regression due to the significance of housing satisfaction as an explanatory variable in modeling on outcome scores as the dependent variables. A predictive model emerged, with $R^2 = .062$, $F(18,1113) = 4.069$, $p < .001$. Although only 6.2% of the variability in housing satisfaction was explained by the model, the coefficients of two variables were significant. Residential housing type ($\beta = .182$, $p < .05$), current service receipt ($\beta = .309$, $p < .01$), and schizophrenia/psychotic disorder ($\beta = .171$, $p < .05$) emerged as significant predictors of housing satisfaction.



Discussion

On the basis of board geographic type and living arrangement, the sample representation cannot be generalized to the universe of consumers who received services in FY 2013. Despite this, study results provide evidence that housing satisfaction has a positive relationship to treatment outcomes. After controlling for characteristics unique to the sample, regression modeling on the self-reported outcome scales Outcomes (Quality of Life), Functioning, and Social Connectedness explained between 23% and 30% of the variability in scores. The assumption that housing satisfaction correlates with better treatment outcomes is intuitive, but study results indicate how much of a difference housing satisfaction can make.

In addition, findings suggest that compared to other groups in the sample, a relatively high percentage of persons with schizophrenia living in residential housing and currently receiving treatment are significantly more satisfied with their housing. As part of a purposive sample, this group has spoken clearly about its satisfaction with the Residential living arrangement. Not all members of this group can be assumed to be living in long term care facilities—some may inhabit half-way houses, group homes, or residential treatment facilities—but



analysis of housing type, diagnostic group, and funding source suggest that the majority are in long term care settings.

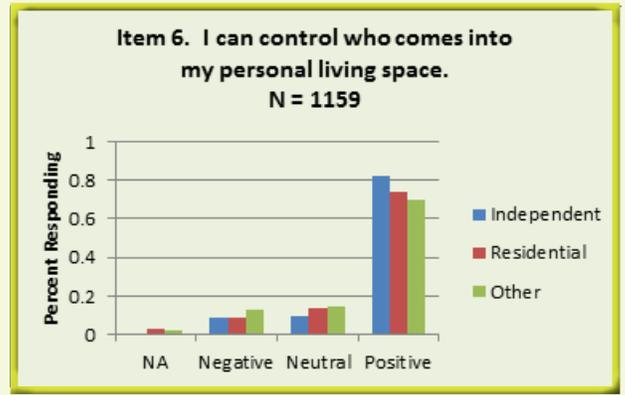
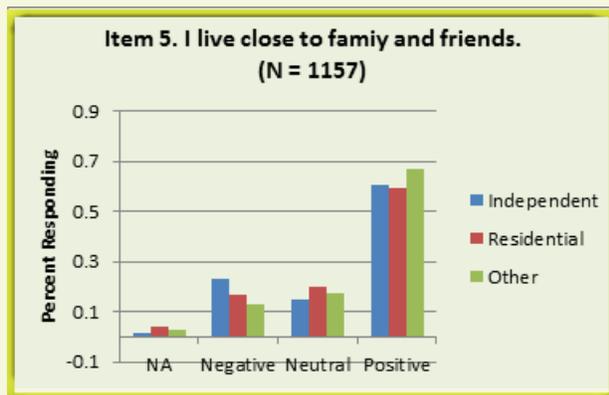
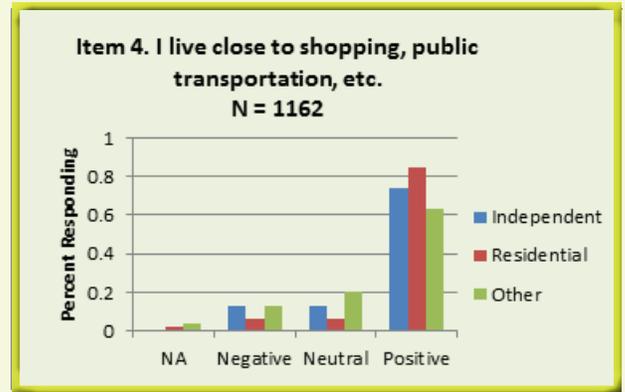
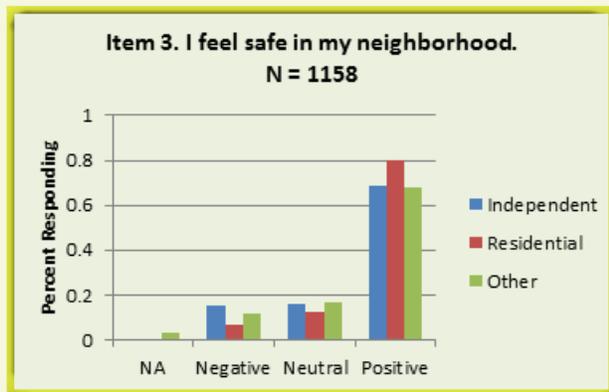
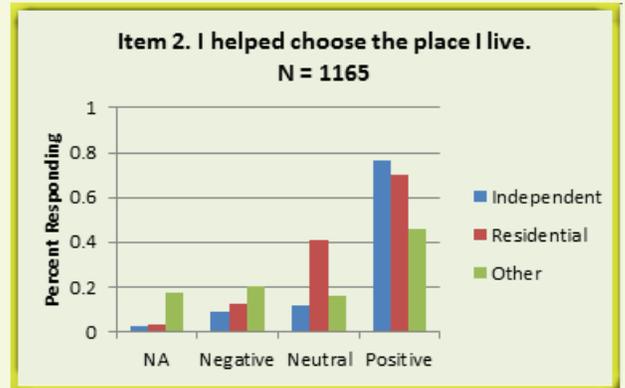
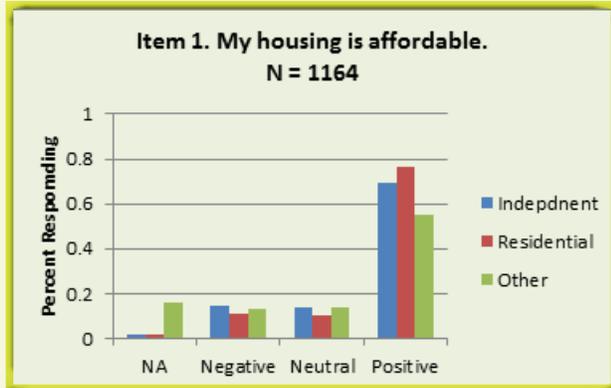
The over-representation of respondents in Residential housing may explain the higher satisfaction scores of this group over those with Independent and Other housing types. In other words, if another 15% of highly satisfied persons living in Independent housing had responded to the survey, the results might be different. However, when considering the role of supplemental funding for housing, persons in the Residential living arrangements may genuinely feel less stress about issues like affordability than individuals with Independent housing. Compared to the potential issues of neighborhood and building safety that appears to be a concern for those in Independent housing, respondents satisfied with Residential housing may feel more secure with the social support of residential oversight.

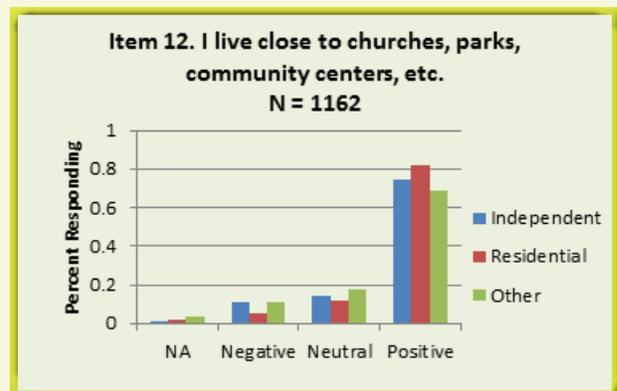
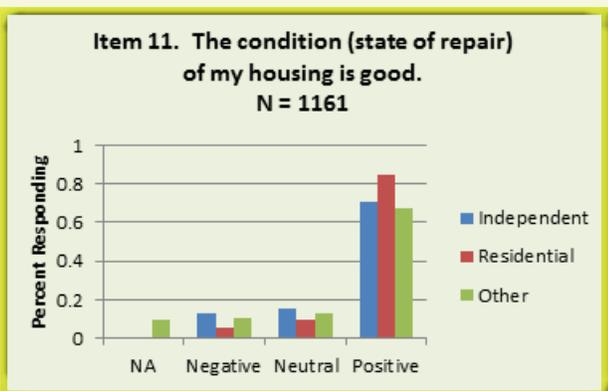
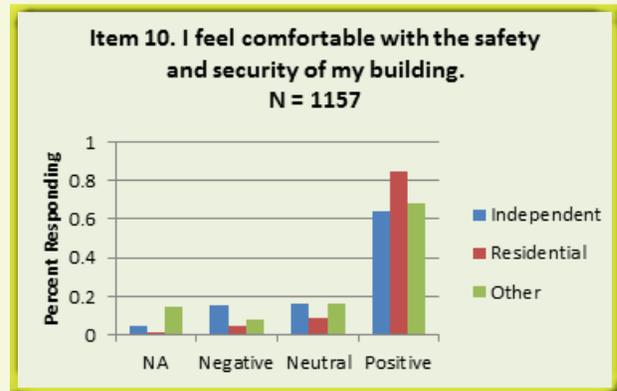
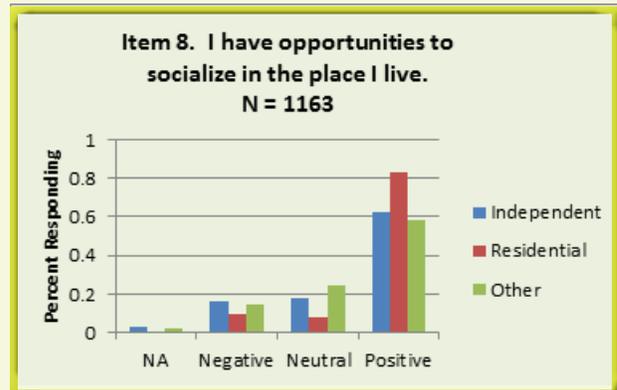
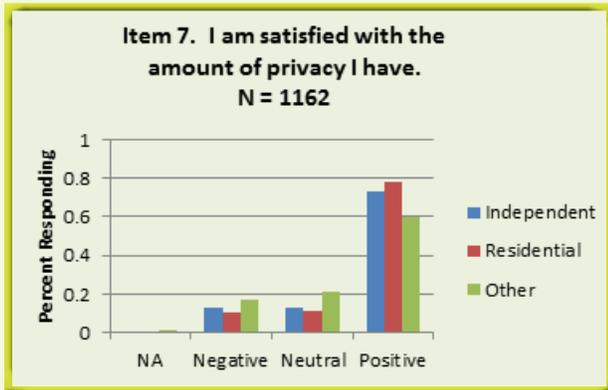
The survey sample of consumers with Independent housing may provide insight into the pervasive stress of living in the community without sufficient help and support. Over one-third of this group was either negative or neutral on the item *"I receive the right amount of help and support to live here."* In addition, over one-third of the group was either negative or neutral on the item (8) *"I have opportunities to socialize in the place I live."* Although the group ranked highest the items (2,6) on choice and control, they were the least satisfied with the item (10) about feeling *"comfortable with the safety and security of my building."* Hence, it should not be surprising that the Independent housing group tied with those in Other housing for percent of negative ranking on the item (14) *"If I had other choices, I would still live here."*

The least satisfied group—people with Other living arrangements—offer important information about a group of people with a potential risk of homelessness. Nearly one-third had received services for a year or less, and close to 9% said they were no longer receiving services—a similar percentage to those with Independent housing, but over twice that of those in Residential settings. The Other living arrangement group's highest ranked survey item (5) was living "close to family and friends" and lowest on every other item, including the Item (13) about there being "no limit to how long I could live here." Even the Residential group, where some respondents presumably were in time-limited treatment programs, scored higher on this item. Because respondents to the "Other" housing category were asked to write a description of their living arrangement, they were the most interesting from a qualitative standpoint. And, perhaps, the most heartbreaking in their descriptions of unhappy, tentative living arrangements.



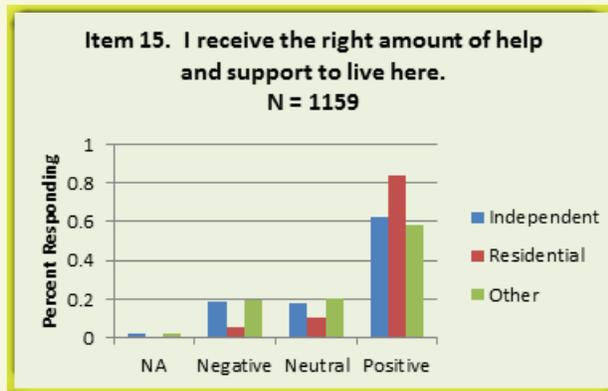
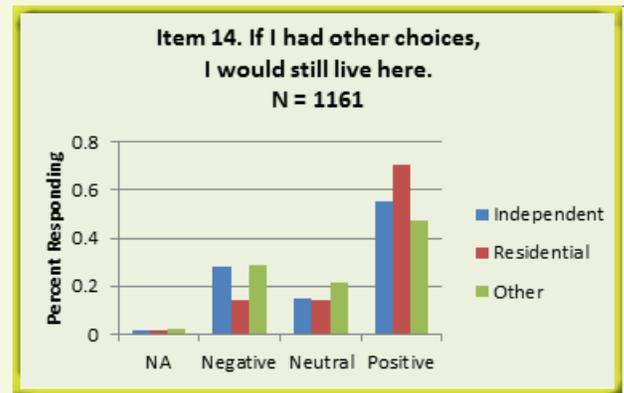
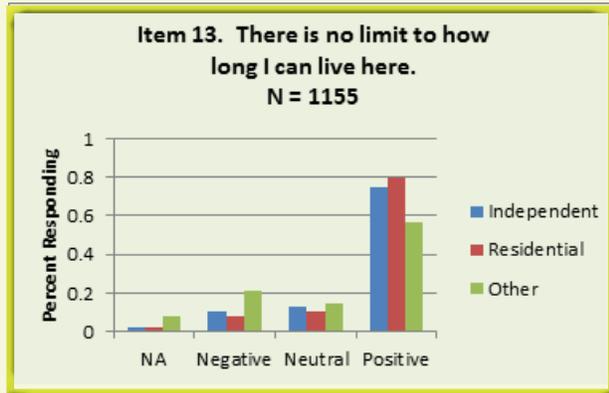
Appendix I
Hosing Item Responses







Consumer Housing Satisfaction and Treatment Outcomes





Appendix 2
OhioMHAS MHSIP Adult Consumer Survey

OhioMHAS MHSIP Adult Consumer Survey

In order to assure the best possible mental health services, the Ohio Department of Mental Health and Addiction Services (OhioMHAS) needs to know what you think about the services you received during the last six months, the people who provided it, and the results. If you received services from more than one provider, please answer for the one you think of as your main or primary provider. Please indicate your agreement/disagreement with each of the following statements by filling in or putting a cross (X) in the circle that best represents your opinion. If the question is about something you have not experienced, black out or put a cross (X) in the "Does Not Apply" circle.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Does Not Apply
1. I like the services that I received at my agency.....	<input type="radio"/>					
2. If I had other choices, I would still get services from my agency....	<input type="radio"/>					
3. I would recommend my agency to a friend or family member.....	<input type="radio"/>					
4. The location of services was convenient (parking, public transportation, distance, etc.).....	<input type="radio"/>					
5. Staff were willing to see me as often as I felt it was necessary.....	<input type="radio"/>					
6. Staff returned my call in 24 hours.....	<input type="radio"/>					
7. Services were available at times that were good for me.....	<input type="radio"/>					
8. I was able to get all the services I thought I needed.....	<input type="radio"/>					
9. I was able to see a psychiatrist when I wanted to.....	<input type="radio"/>					
10. Staff believe that I can grow, change and recover.....	<input type="radio"/>					
11. I felt comfortable asking questions about my treatment and medication.....	<input type="radio"/>					
12. I felt free to complain.....	<input type="radio"/>					
13. I was given information about my rights.....	<input type="radio"/>					
14. Staff encouraged me to take responsibility for how I live my life...	<input type="radio"/>					
15. Staff told me what side effects to watch out for.....	<input type="radio"/>					
16. Staff respected my wishes about who is and who is not to be given information about my treatment.....	<input type="radio"/>					
17. I, not staff, decided my treatment goals.....	<input type="radio"/>					
18. Staff were sensitive to my cultural background (race, religion, language, etc.).....	<input type="radio"/>					
19. Staff helped me obtain the information I needed so that I could take charge of managing my illness.....	<input type="radio"/>					
20. I was encouraged to use consumer-run programs (support groups, drop-in centers, crisis phone line, etc.).....	<input type="radio"/>					

Please turn survey over to answer questions on back side.

«Seqnum» 2YS



Consumer Housing Satisfaction and Treatment Outcomes

OhioMHAS MHSIP Adult Consumer Survey

<i>As a direct result of the services I received:</i>	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Does Not Apply
21. I deal more effectively with daily problems.....	<input type="radio"/>					
22. I am better able to control my life.....	<input type="radio"/>					
23. I am better able to deal with crisis.....	<input type="radio"/>					
24. I am getting along better with my family.....	<input type="radio"/>					
25. I do better in social situations.....	<input type="radio"/>					
26. I do better in school and/or work.....	<input type="radio"/>					
27. My housing situation has improved.....	<input type="radio"/>					
28. My symptoms are not bothering me as much.....	<input type="radio"/>					
29. I do things that are more meaningful to me.	<input type="radio"/>					
30. I am better able to take care of my needs.	<input type="radio"/>					
31. I am better able to handle things when they go wrong.	<input type="radio"/>					
32. I am better able to do things that I want to do.	<input type="radio"/>					

For questions 33-36 please answer for relationships with persons other than your mental health provider(s)

33. I am happy with the friendships I have.....	<input type="radio"/>					
34. I have people with whom I can do enjoyable things.....	<input type="radio"/>					
35. I feel I belong in my community.	<input type="radio"/>					
36. In a crisis, I would have the support I need from family or friends.	<input type="radio"/>					

Please answer the following questions to let us know how you are doing.

37. Are you still getting mental health services? Yes No
38. Were you arrested in the past 12 months? Yes No
39. Were you arrested during the 12 months prior to that? Yes No
40. Over the past year, have your encounters with the police:
- Been reduced. I haven't been arrested, hassled by the police, taken by police to a shelter or crisis program.
 - Stayed the same.
 - Increased.
 - Not applicable. No police encounters this year or last.

«Seqnum» 2YS



OhioMHAS MHSIP Adult Consumer Survey

Please help us understand more about your housing situation.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Does Not Apply
41. My housing is affordable.....	<input type="radio"/>					
42. I helped choose the place I live.....	<input type="radio"/>					
43. I feel safe in my neighborhood.....	<input type="radio"/>					
44. I live close to shopping, public transportation, etc.	<input type="radio"/>					
45. I live close to family and friends.....	<input type="radio"/>					
46. I can control who comes into my personal living space.....	<input type="radio"/>					
47. I am satisfied with the amount of privacy I have.....	<input type="radio"/>					
48. I have opportunities to socialize in the place I live.....	<input type="radio"/>					
49. It doesn't take very long to get repairs done where I live.....	<input type="radio"/>					
50. I feel comfortable with the safety and security of my building....	<input type="radio"/>					
51. The condition (state of repair) of my housing is good.....	<input type="radio"/>					
52. I live close to churches, parks, community centers, etc.....	<input type="radio"/>					
53. There is no limit to how long I can live here.....	<input type="radio"/>					
54. If I had other choices, I would still live here.....	<input type="radio"/>					
55. I receive the right amount of help and support to live here.....	<input type="radio"/>					

Which of the following housing types best describes your current living situation? (Choose only one)

- Independent Housing House, apartment, trailer, hotel/motel room, that you own or rent from a landlord. Living arrangement is not owned or supervised by treatment provider.
- Residential Housing Living arrangement includes room, board, and personal care. May also include treatment. Examples are adult care facility, halfway house, group home, supervised housing, boarding home, adult foster care, retirement home, assisted living facility, rest home, nursing home, residential treatment, rehabilitation center, health care center.
- Other Housing Please describe: _____

«Seqnum» 2YS



Consumer Housing Satisfaction and Treatment Outcomes



Tracy J. Plouck, Director • John R. Kasich, Governor

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