

Housing Assistance for Households Experiencing Homelessness

Jamie Taylor

Cloudburst Consulting Group

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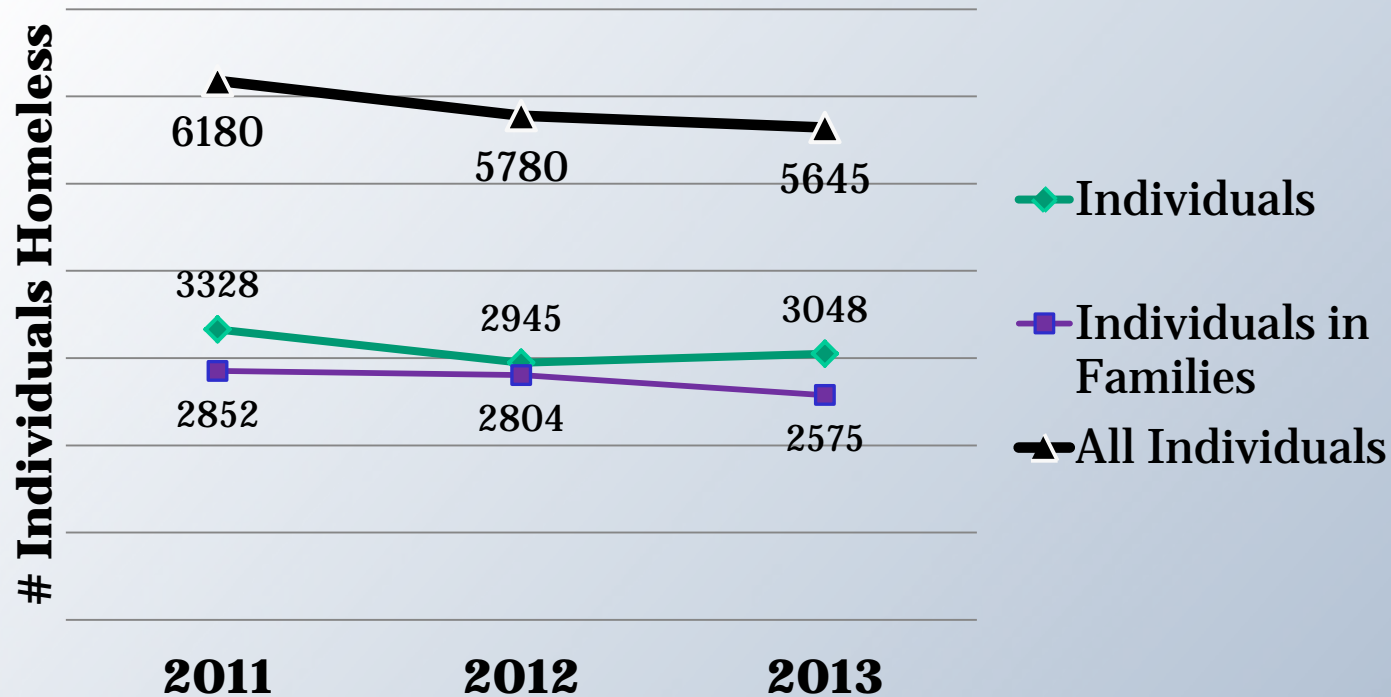


Objectives

- 1) RRH - The Philadelphia Story
- 2) RRH results from around the nation
- 3) Local RRH research directions

Did HPRP help decrease homelessness in Philadelphia?

Homelessness in Philadelphia 2011 - 2013



Specific Research Questions for Philadelphia Rapid Re-Housing Study

- Does Rapid Re-Housing improve housing stability for formerly homeless households by decreasing the risk of a return to homelessness?
- Does RRH help to improve household income?

Research Aims for Rapid Re-Housing

Can we answer the counterfactual?

RESEARCH AIM:

- Research for RRH policy goal is to estimate whether RRH is the specific element responsible for decreasing homelessness. Counterfactual:

What would have happened to RRH households if there was no RRH?

WHY RESEARCH DESIGN IS NECESSARY:

- When households who participate in RRH are different from households who do not, need to control for differences using research design. Differences in RRH and non-RRH households show up as confounders: i.e. RRH enrollment strategies differences by case manager, by program; length of RRH assistance; Housing market variability

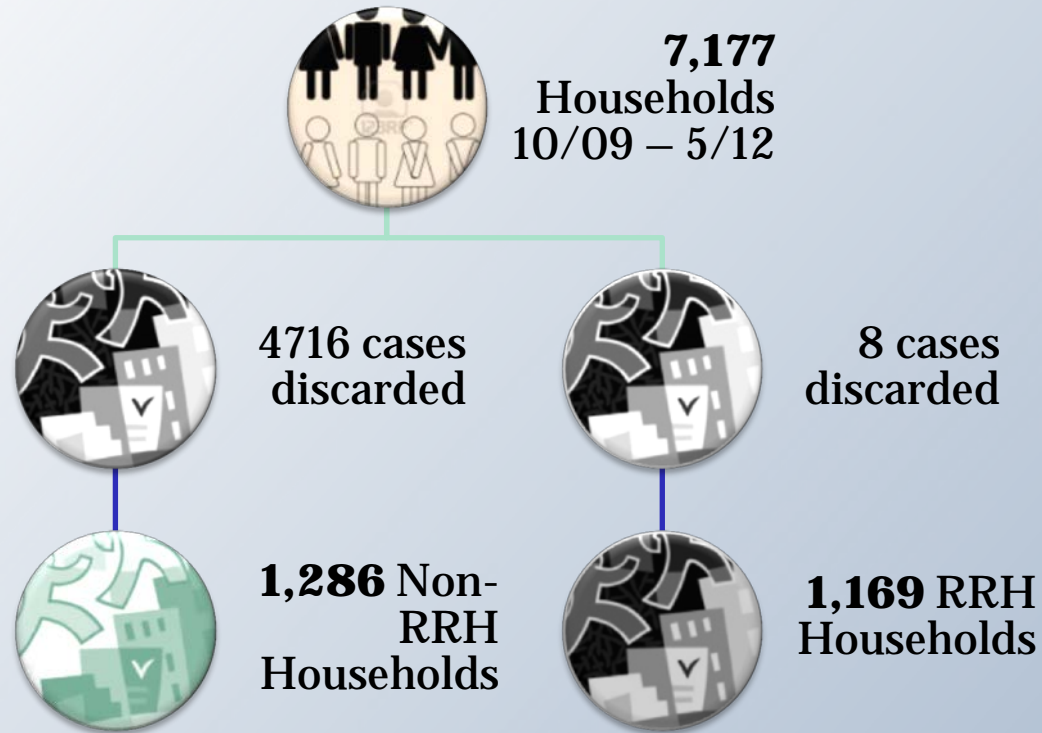
Gold Standard = Random Control Trial = assess causal effect of RRH

RESEARCH DESIGN WITHOUT RCT

- With no RCT, matching methods can be used to create comparison groups that look alike, controlling for confounding differences. Propensity score matching now widely applied, probability of participation estimated using observable variables.,

Dataset: All Households that entered Philadelphia shelters 10/2009-5/2012

Propensity Score Match



PSM Result—households in each group similar, standard means balanced

RRH Treatment.....1169 households
 Non-RRH Control.....1286 households

Each variable included in PSM represents HMIS data indicator correlated with risk of homelessness. (Disabling condition excluded based on high correlation with SSI-SSDI)

Standard means comparison, t-tests performed on PSM matched groups, strong PSM model, households similar

Variables		N	Mean
Monthly income @ sheltr entry	1.00	1169	730.50
	.00	1286	718.78
MarriedBinary	1.00	1169	.0607
	.00	1286	.0539
GenderBinary	1.00	1169	.5774
	.00	1286	.5958
HSGradBinary	1.00	1169	.5346
	.00	1286	.5672
Family Size	1.00	1169	2.25
	.00	1286	2.27
HHAge18_25	1.00	1169	.2198
	.00	1286	.2434
HHAge26_59	1.00	1169	.7305
	.00	1286	.7113
HHAge60plus	1.00	1169	.0488
	.00	1286	.0445
SSI_SSDI	1.00	1169	.2541
	.00	1286	.2447
# times in shelter (>30 days)	1.00	1169	2.13
	.00	1286	1.85

PSM Analysis: Return to Homelessness Results

Comparison Group	# Households	% Returned to Homelessness
Rapid Re-Housing Group	1,169 households	13.6%
Non- RRH Group	1,286 households	39.4%
Total	2,455 cases	

Odds ratio: The odds of returning to homelessness were 42% higher for households that did not receive RRH compared to households that did receive RRH

Additional Analysis to Validate PSM Finding - Instrumental Variable Estimation

- Propensity Score Match controlled for **observable** characteristics of study households. PSM unable to control for non-observable data that can bias results.
- Data results bias concern for **unobserved** characteristics, factors that are not in dataset, yet may confound comparison results
 - Motivation, an unseen characteristic, might be higher for RRH households, not an HMIS variable
 - Selection bias, i.e. household employability as interpreted by case managers, not reportable in HMIS

Instrumental Variable (IV) Approach – Assess causal effect if assumptions met

- The idea behind IV approach is that factors (instruments) outside of PSM model may affect participation in RRH.
- An instrument is defined as “*a nudge or encouragement to accept treatment that affects the outcome only to the extent that it affects the acceptance of treatment*” (Rosenbaum 2010).
- When an instrumental variable is used, the variation unrelated to control variables used in matching model is used to estimate differences between comparison groups. Variation that stems from the instrumental variable helps estimate differences between groups.
- If all assumptions (exclusion restriction) are meant, IV analysis can determine *causal effect of RRH treatment*.

Instrumental Variable Choice = Zip Code of Referring Shelters

- Shelter site location projected to be partially correlated with treatment, but unrelated to other RRH uptake factors and unrelated to risk of a return to homelessness
- RRH in Philadelphia a new program under HPRP, over 70 different referral sites. Variation likely to exist in uptake.
- Uptake variation across shelter sites likely due to:
 - varying numbers of people eligible for RRH referral,
 - level of preparation time shelter staff spent preparing households for RRH entry,
 - distance from shelter site to RRH intake,
 - shelter variation in adopting RRH model

Philadelphia RRH Program Entry Process – variation in uptake across enrollments

Step One: Household is referred from Philadelphia Shelter System for RRH (over 75 different referral points in dataset)

Step Two: Referral sent to Philadelphia Office of Supportive Housing for approval (via HMIS)

Step Three: OSH sends accepted referrals to one of five RRH offices, four out of five offices located in downtown Philadelphia

Step Four: Household is given intake appointment and must go to their assigned site for RRH intake, four located downtown

Step Five: Household receives RRH assistance

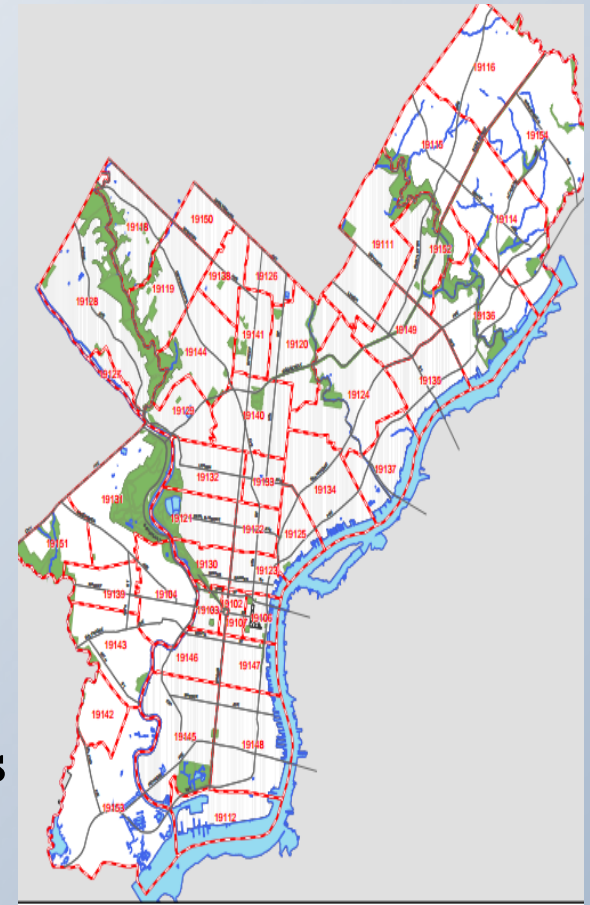
Instrumental Variable Analysis Results

- First stage results, if F-statistic >10 , then second stage results of treatment impact can be measured with inclusion of valid IV from stage one and covariates related to risk of a return to homelessness. Second State results estimated the effect of RRH on the risk of a return to homelessness

2SLS IV ANALAYSIS RESULTS

- For households that received RRH, 32% higher likelihood of not returning to homelessness compared to non-RRH households

**IV analysis results support PSM results
-- RRH reduces the risk of return to homelessness**



RRH Households in PSM - Risk factors for Return to Homelessness

- **Logistic regression Results – RRH Households Return to Homelessness**

	Estimate	z value	Pr(> z)
MonthsRRH	0.004446	0.246	0.8060
HHGenderM	-0.057826	-0.219	0.8266
HHGender	-11.236950	-0.022	0.9824
HHGender	0.487946	0.325	0.7454
Married	-1.243825	-2.148	0.0317 * PROTECTIVE
HS Complete	0.231277	1.178	0.2388
SSI_SSDI	0.206173	0.964	0.3348
HHAge18_25	13.077275	0.015	0.9882
HHAge26_59	12.719711	0.014	0.9885
HHAge60plus	12.015166	0.014	0.9891
#timesinshelter	0.631729	11.132	<2e-16***RISK FACTOR
FamilySize	-0.025399	-0.319	0.7499

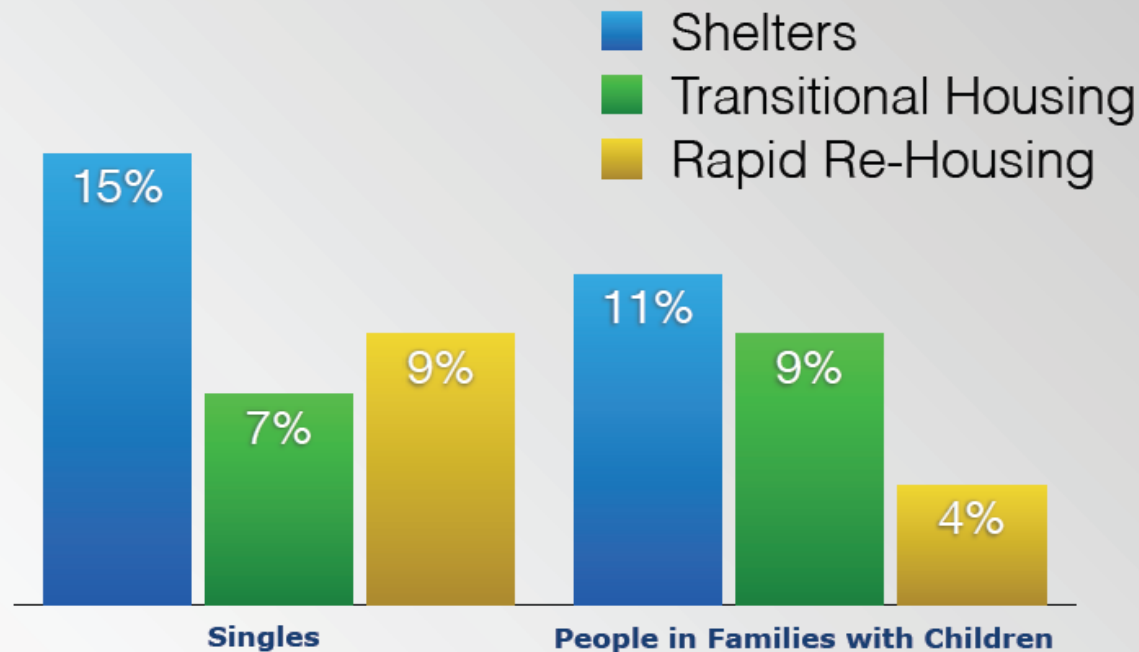
RRH Results across the Country

Region/ Program	# of RRH HH's Served	Return to Homeless Rate	Average RRH Assist	Additional Description of RRH program
Utah – The Road Home	1,007	13%	4 months	TANF \$ 4 mos, progressive engagement
D. C. Community of Hope	117	7%	10 months	Use OrgCode's Service Prioritization and Decision Assistance Tool
Mercer County, NJ TANF RRH Pilots	231	5% (of all who complete program)	5 months	Mercer County Average shelter decline = 20% Motel decline = 66%
Connecticut	1,600	11%	Unknown	Data for all three years of RRH -
Idaho – CATCH programs	Unknown from report	15%	6 months	Partners with local congregations, United Way, businesses, government



NAEH Evaluation of 14 CoC RRH programs, Average cost = \$4,000/family

Rate of Return to Homelessness Within 12 Months of Exit for 7 Communities



Georgia Study of Reoccurrence Rates – Who most likely to return to homelessness

1. Was not in a Rapid Re-Housing program
2. Had a history of homelessness
3. Went to a “temporary” destination
4. Was Non-Hispanic / Non-Latino
5. Was Non-White
6. Had a disabling condition at program exit
7. Program was in a non-rural county
8. Was male
9. Was unaccompanied
10. Was not with a teenage male

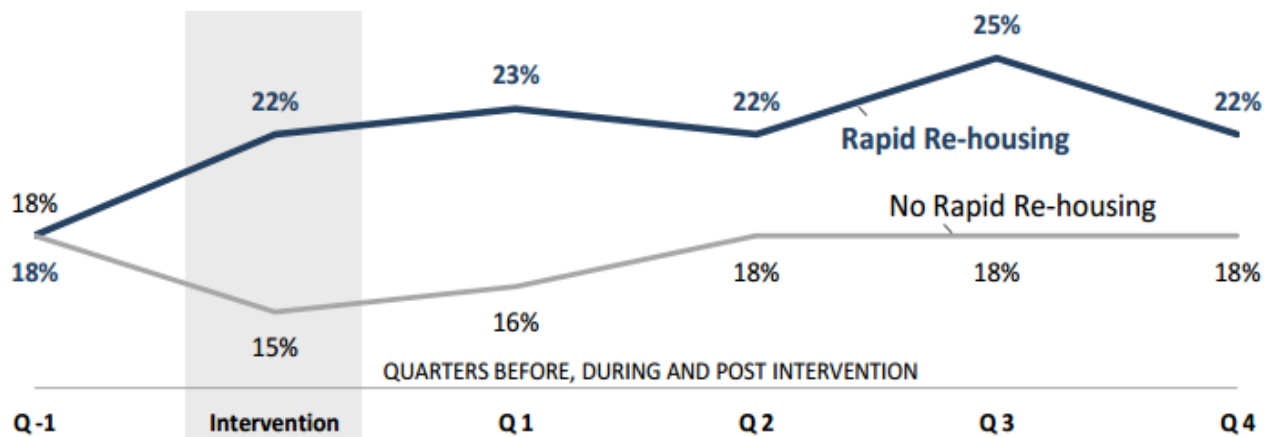
Source: Jason Rodriguez, GA Dept of Community Affairs

Washington State Evaluation – Robust matching model RRH and employment

Washington State 2010 Evaluation - Rapid Re-Housing Impacts on Employment*

Employment rates of homeless DSHS clients are higher both during and after Rapid Re-Housing Assistance

Statistically adjusted to account for employment history and other characteristics.



*RRH clients were 1.25 times more likely to be employed, and, on average, earned \$422 more annually than their counterparts who did not receive RRH.

RRH does not end poverty – Variable RRH factors in every region

In summary: Rapid Re-Housing appears to effectively decrease the risk of a return to homelessness and may improve income

**Growing need for additional RRH research evidence
AND additional investment in affordable housing for
very low income households**

Variable factors in every RRH region:

- Housing market – % affordable rents
- Network of Landlord partnerships
- Capacity to leverage TANF / HOME/ other Rental Assistance Funds
- ESG funding levels
- Belief in RRH approach
- Coordinated Assessment Tools

Local HMIS Evaluation – Five Steps

1. Define Rapid Re-Housing Success in own community
2. Use HMIS data indicators
 - Return to Homelessness by cohort/group
 - Length of stay/time homeless
 - Reduction in shelter households over time
 - Average Shelter costs per day
 - Average RRH assistance costs per day
3. Establish comparison group using matching method
4. Analyze Data – Courageously accept data shortcomings
5. Add results to emerging RRH evidence

Thank you!

Jamie Taylor

Cloudburst Consulting Group

jamie.taylor@cloudburstgroup.com

Phone # 860-716-7392

