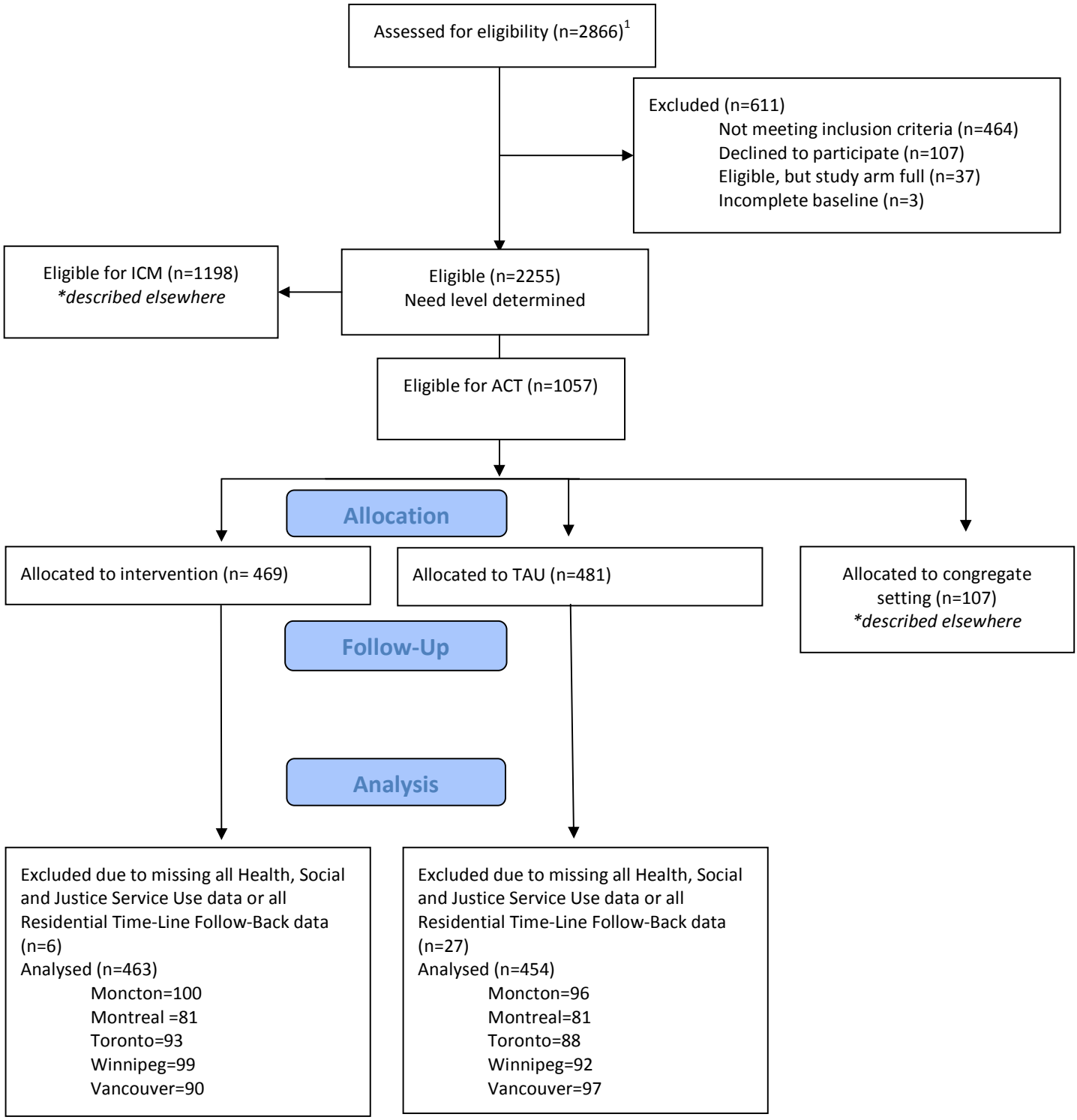
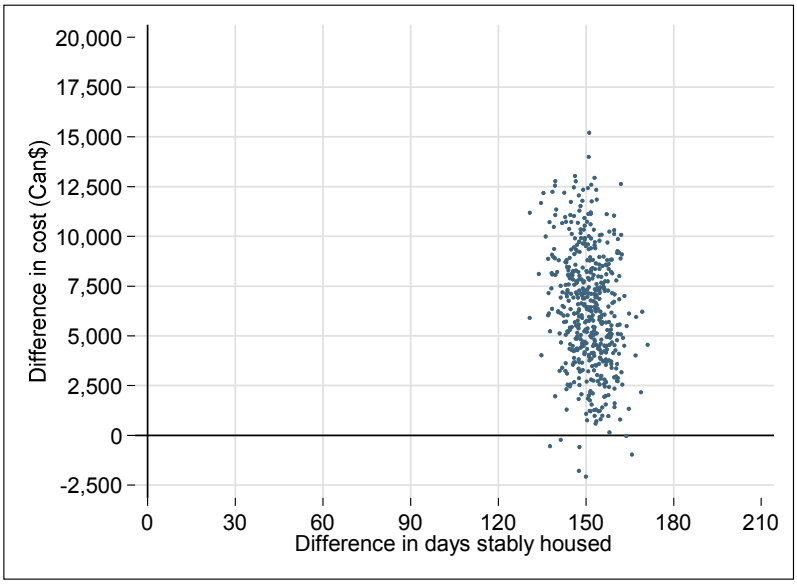
eFigure 1. Flow Chart Showing Selection of Study Participants.



[1]The number of participants assessed for eligibility is an estimate as some sites employed pre-screening and did not document those who were excluded through this process.

eFigure 2. Bootstrap Replicates on the Cost-Effectiveness Plane, Housing First - Treatment as Usual



The original number of days of stable housing and the total cost for each Housing First and Treatment as Usual participant are used to calculate the difference in average number of days of stable housing between the Housing First and Treatment as Usual groups (Housing First minus Treatment as Usual), and the difference in average total costs. These two differences can be plotted on the cost-effectiveness plane; their ratio is the incremental cost-effectiveness ratio. To assess the variability in that ratio, 500 bootstrap samples are drawn. (A bootstrap sample is randomly drawn with replacement from the original set of cost-effect pairs, so that it has the same number of experimental and control group cost-effect pairs as in the original sample.) For each bootstrap sample, the difference in days stably housed and in total costs is computed and plotted. The cost-effectiveness acceptability curve (Figure 1) can then be derived from this figure.

eTable 1. Net Benefit Regression Results, Assigning Different Values to an Additional Day of Stable Housing Without Interaction Terms[a]

	Estimated β coefficients (95 % CI), 2016 Can$[b]		
	λ^c = $0	**λ^c = $20**	**λ^c = =$40**
HF intervention	-6,147 (-12036 to -258)	-3,123 (-9079 to 2833)	-98 (-6134 to 5937)
Montreal	-28,284 (-38278 to -18290)	-29,557 (-39662 to -19453)	-30,830 (-41066 to -20595)
Toronto	-28,415 (-38473 to -18357)	-29,037 (-39225 to -18848)	-29,659 (-39997 to -19321)
Winnipeg	-11,579 (-21,013 to -2,145)	-12,897 (-22430 to -3364)	-14,215 (-23866 to -4563)
Vancouver	-19,334 (-29559 to -9109)	-20,183 (-30525 to -9841	-21,032 (-31512 to -10552
Aged 30-49	-2,255 (-9592 to 5082)	-2,026 (-9441 to 5390	-1,796 (-9303 to 5710
Aged ≥ 50 y	5,312 (-4589 to 15212)	5,715 (-4289 to 15720)	6,119 (-4008 to 16246)
Female	-2,456 (-9012 to 4099)	-2,107 (-8729 to 4514)	-1,758 (-8458 to 4942)
Alcohol or Substance abuse or dependence	-2,637 (-9844 to 4570)	-2,686 (-9978 to 4606)	-2,735 (-10125 to 4656)
MCAS score/10[d]	3,192 (-1487 to 7870)	3,555 (-1179 to 8288)	3,918 (-880 to 8715)
Hospitalization history[e]	-11,036 (-17533 to -4540)	-10,694 (-17266 to -4123)	-10,353 (-17010 to -3695)
Arrest history[f]	-4,861 (-10991 to 1268)	-5,277 (-11475 to 921)	-5,693 (-11970 to 585)
Longest period homeless[g]	-113 (-176 to -49)	-115 (-178 to -51)	-116 (-181 to -52)
Constant	-42,212 (-73210 to -11213)	-41,602 (-72965 to -10240)	-40,993 (-72777 to -9209)

	λ^c = $60	**λ^c = $80**	**λ^c = $100**
HF intervention	2,926 (-3200 to 9052)	5,950 (-277 to 12178)	8,975 (2635 to 15314)
Montreal	-32,103 (-42490 to -21716)	-33,376 (-43933 to -22819)	-34,649 (-45395 to -23903)
Toronto	-30,281 (-40788 to -19774)	-30,903 (-41596 to -20210)	-31,525 (-42421 to -20629)
Winnipeg	-15,532 (-25320 to -5745)	-16,850 (-26793 to -6908)	-18,168 (-28281 to -8054)
Vancouver	-21,881 (-32519 to -11243)	-22,730 (-33545 to -11914)	-23,579 (-34590 to -12568)
Aged 30-49	-1,567 (-9179 to 6044)	-1,338 (-9067 to 6390)	-1,109 (-8967 to 6748)
Aged ≥ 50 y	6,522 (-3746 to 16791)	6,926 (-3500 to 17352)	7,330 (-3271 to 17931)
Female	-1,409 (-8200 to 5382)	-1,060 (-7953 to 5833)	-711 (-7719 to 6297)
Alcohol or Substance abuse or dependence	-2,783 (-10285 to 4718)	-2,832 (-10457 to 4792)	-2,881 (-10640 to 4878)
MCAS score/10[d]	4,280 (-588 to 9149)	4,643 (-305 to 9591)	5,006 (-29 to 10041)
Hospitalization history[e]	-10,011 (-16767 to -3254)	-9,669 (-16536 to -2801)	-9,327 (-16315 to -2338)

Arrest history[f]	-6,108 (-12478 to 261)	-6,524 (-12996 to -52)	-6,939 (-13525 to -354)
Longest period homeless[g]	-118 (-184 to -53)	-120 (-187 to -54)	-122 (-190 to -55)
Constant	-40,384 (-72646 to -8121)	-39,774 (-72568 to -6980)	-39,165 (-72541 to -5788)

Abbreviations: HF: Housing First intervention; MCAS: Multnomah Community Ability Scale.

Notes:

[a] N=917. Models estimated with net monetary benefit not adjusted for baseline differences in costs. Dependent variable is $(d_i \cdot \lambda) - c_i$, where λ is the threshold ratio (in Canadian dollars per additional day of stable housing), d_i is participant i's annualized number of days of stable housing, and c_i is the corresponding total cost.

[b] Reference categories include: Moncton site, younger than 30 years, and no alcohol or substance abuse or dependence.

[c] Decision maker's willingness to pay for an additional day of stable housing.

[d] Coefficients indicate partial association with a 10-point increase in MCAS score.

[e] Indicates 2 or more hospitalizations for mental illness during a 1-year period during the 5 years before baseline.

[f] Indicates 1 or more arrests or incarcerations in the 6 months before baseline.

[j] During lifetime, in months.

eTable 2. Two-Way Sensitivity Analysis : ICER and 95% CI as a Function of Discount Rate and Whether an Adjustment is Made for Baseline Differences

	Discount rate		
	0%	**3%**	**5%**
No adjustment for baseline differences	$42.08 (2.44, 81.95)	41.73 (1.96, 83.70)	$41.90 (4.26, 80.01)
Adjustment for baseline differences	$34.08 (cost-saving[a], 70.02)	33.86 (cost-saving, 73.22)	$33.85 (cost-saving, 68.42)

[a] The estimated value is negative. Negative ICERs are undefined in general; in this case we can state that the lowest bound corresponds to a cost-saving ICER.