

COST SAVINGS OF HOUSING FIRST IN CALGARY

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HOUSING FIRST

- Supportive housing initiative
 - Shown to be cost-saving in different scenarios
 - Cities, groups of people, experimental design
- Applied in large city in Alberta, years of data, baseline + quarterly follow-up

WE LOOK AT TWO COST CATEGORIES

- Health care system costs
- Justice system costs

COSTS OF HEALTH CARE

- We use the two biggest costs: emergency rooms and hospital days.
- Costs are average for the population:
 - Hospital - \$1414 + \$2559
 - Emergency Room - \$840
- For hospitals there is evidence of a premium for homeless due to complicated needs, estimated in Ontario at \$2559/day

JUSTICE UTILIZATION (CPS)



ANNUAL COST OF PROGRAM DELIVERY

- Depends on client needs

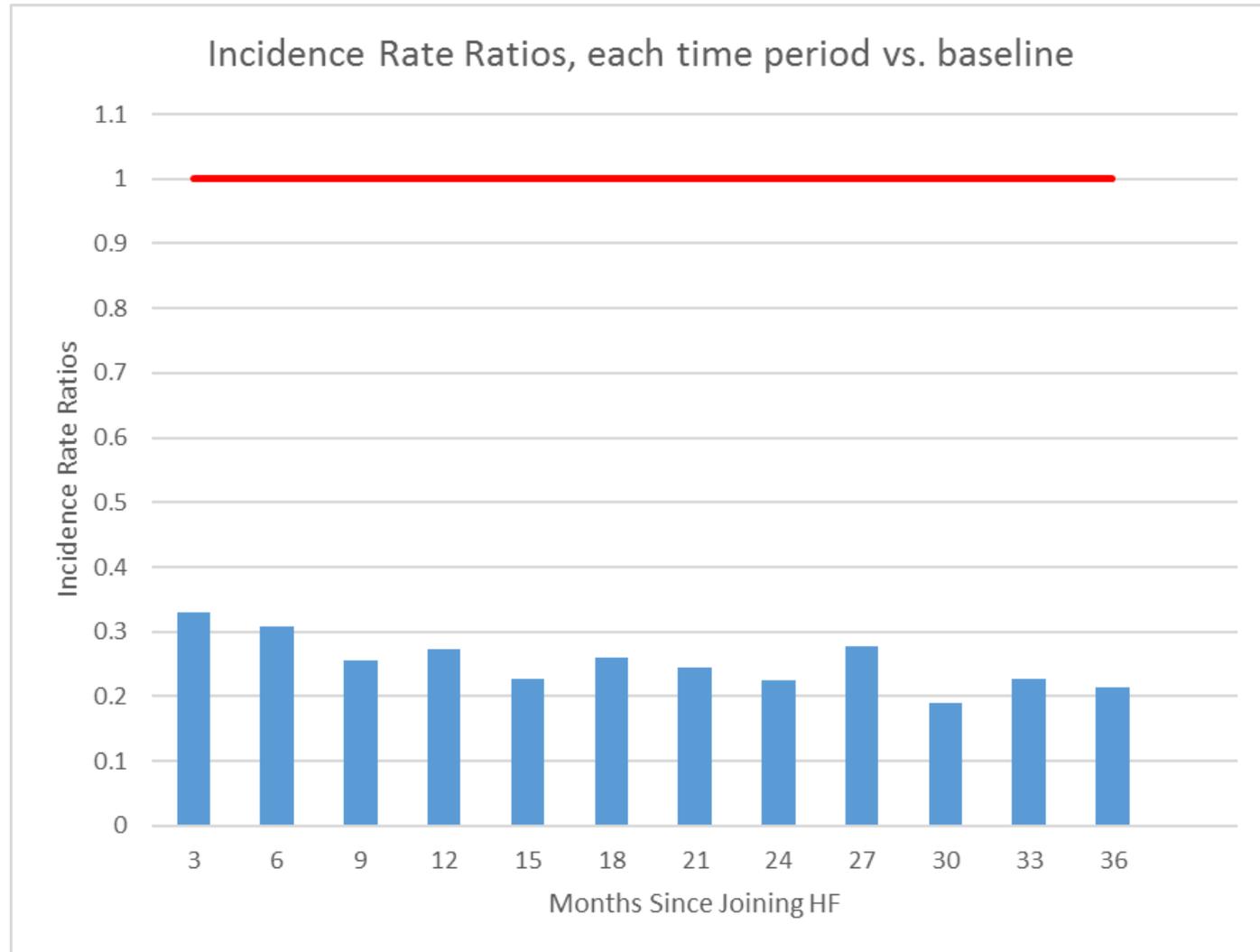
<u>Program Types</u>	<u>Cost/Client</u>
Assertive Community Treatment	\$ 25,936
Permanent Supportive Housing - High Acuity	\$ 30,528
Supportive Housing - High Acuity	\$ 16,847
Supportive Housing - Mid Acuity	\$ 13,930
<u>Transitional Housing</u>	<u>\$ 20,030</u>

WHO IS IN THE SAMPLE?

- ~67% male, 65% white, adults, in high/mid acuity supportive housing
- Average utilization of services before joining HF
 - 6.45 hospital days
 - 1 emergency room visit
 - 3.15 interactions with police
- We did some regressions to estimate fitted use of services over time.

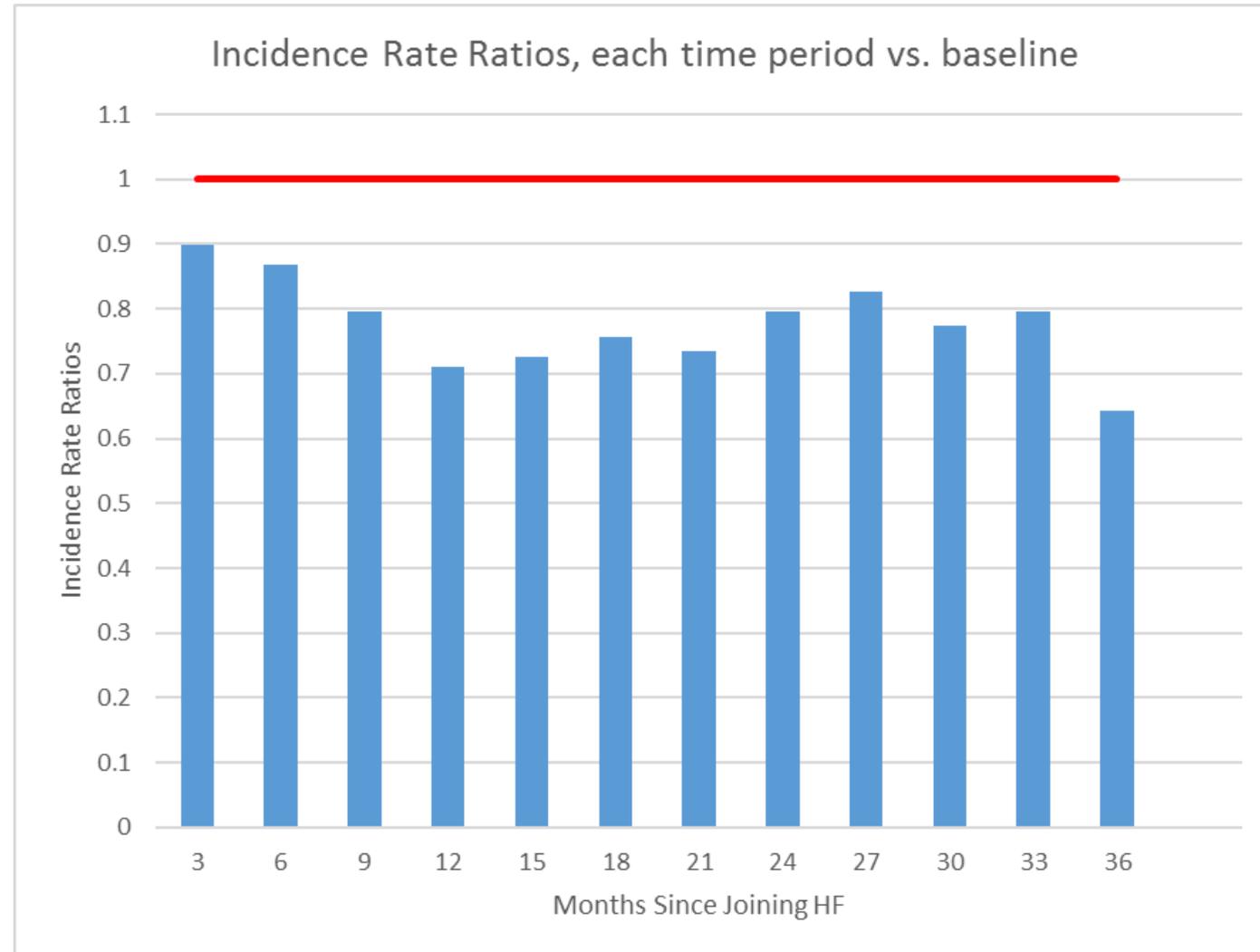
SO WHAT HAPPENS IN HF?

- Hospital days decrease by $\frac{2}{3}$



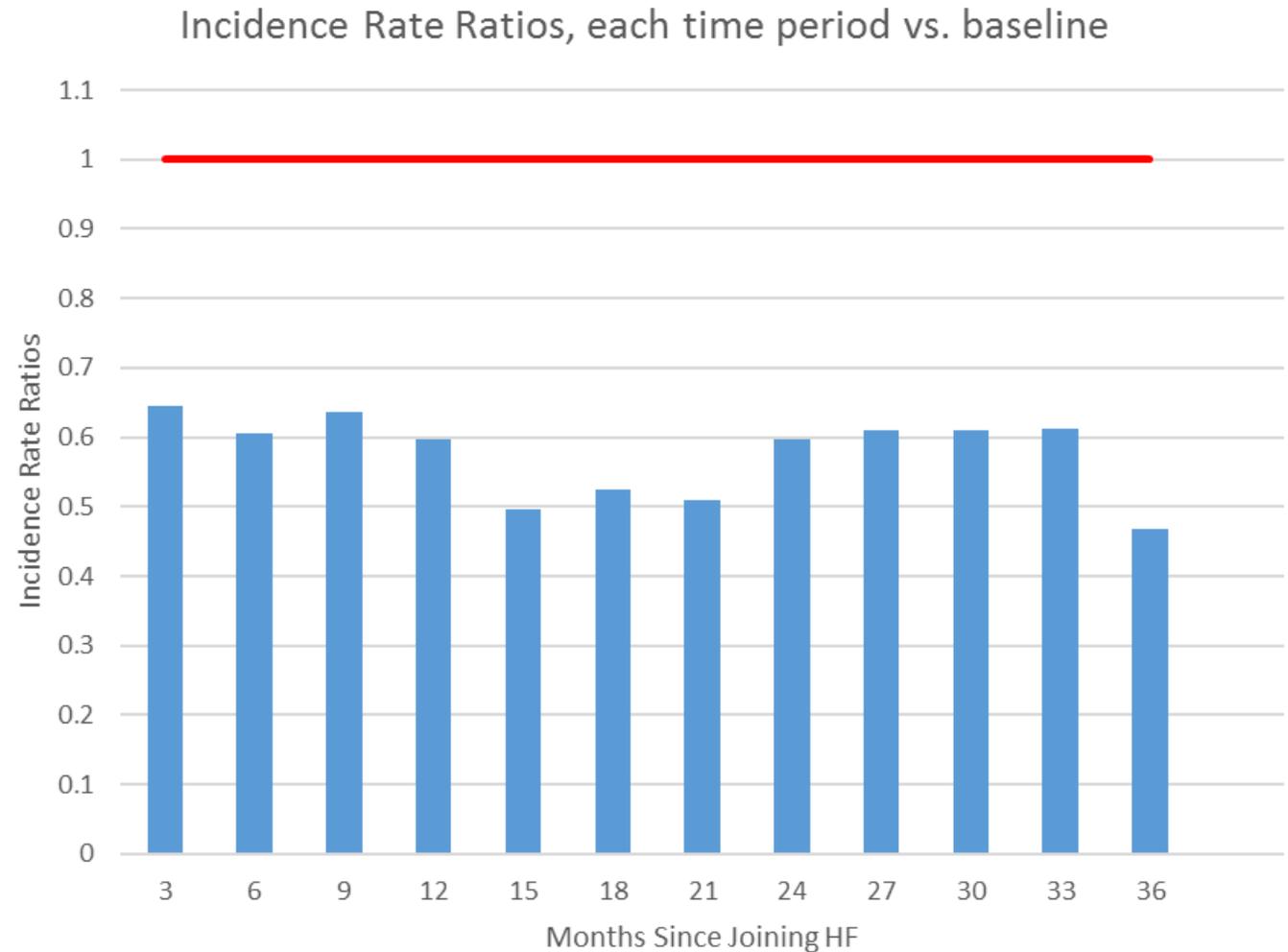
SO WHAT HAPPENS IN HF?

- Emergency department visits decrease by about 1/10 initially, that decreases over time.



SO WHAT HAPPENS IN HF?

- Police interactions fall to about 60% of the previous rate.



HOUSING FIRST SAVES MONEY FROM OTHER PUBLIC SERVICES

- Immediate, persistent benefits.
- This is the cornerstone result of most HF cost studies, that it actually does lower utilization of public programs.
- How much money is what's important. In 1 year we see:
 - ~\$71,000 in hospital days, ~\$575 in emergency departments, ~\$6500 in police interactions/justice
- So how does that compare with the costs of HF?

MASSIVE COST SAVINGS IN THE BASE CASE

- The average cost-per-year is a weighted average of the program specific costs, let's just pretend everyone had the most expensive version of HF:
 - \$30,528 is the average yearly cost of HF
 - Over the three years we observe, we see net cost savings of \$162,338
- That's enough to open five more of the most expensive housing first spots per client.

“YOU’RE WRONG”

- Ok, let’s change some assumptions.
 - What if we remove the premium on hospitals completely?
 - Net cost savings over three years is \$14,400, enough for one new HF spot per three clients.
 - What if we have over-estimated effectiveness? What is baseline reports are too high?
 - If we halve the estimated benefits of hospital days, our largest driver, net cost savings over three years is \$47,500.
 - Both at the same time?
 - No more net cost savings, cost offsets but spending about \$9,000 a year

PROBLEMS

- Can't observe actual use, can't address mean-reversion idea
- People stay for different periods of time
- Is triage system working?

CONCLUSION

- There are potentially huge benefits of HF in Calgary as currently practiced.
- The benefits justify redirection of money from health care to social programs, no net budget impact.