

# The ACE Team: An Inner City Outreach Team for High Barrier HIV and Hepatitis C Individuals



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## Background

The Adherence and Community Engagement (ACE) Team was created by pharmacists in August 2016.

It is an Edmonton-based outreach team dedicated to connecting and improving the health outcomes of marginalized individuals experiencing health and social inequities.

A team comprised of pharmacists, a licensed practical nurse (LPN) and an outreach worker provide daily medication administration, management of health concerns and connections to social supports. The clients of ACE are primarily Indigenous individuals living in poverty, with advanced HIV/AIDS, hepatitis C, mental health concerns, and active substance use disorders. Over half are living with homelessness. These are clients who have fallen through the cracks, experience multiple barriers engaging in care, and who have a quickly deteriorating health status.

## Program Description

The ACE model of mobile care consists of pharmacists, a licensed practical nurse (LPN), and an outreach worker.

The team goes out in pairs, 7 days a week/ 365 days a year, to see clients in their homes, in shelters, on the street, or where ever they may be. Through the use of a mobile phone and vehicle, they connect with clients as often as daily to provide daily observed therapy (DOT) of medications.

### Additional mobile services include:

- injections
- opioid agonist treatment (OAT)
- ensuring medication continuity
- crisis support
- treatment of minor ailments
- wound care
- connections to health and social services
- food access
- harm reduction supplies
- housing
- hepatitis C treatment

ACE has received over 117 referrals as of April 2019. Funding for the ACE Team is received through Alberta Health/ Alberta Health Services as part of a two year demonstration grant.

## Client Centered Outcomes

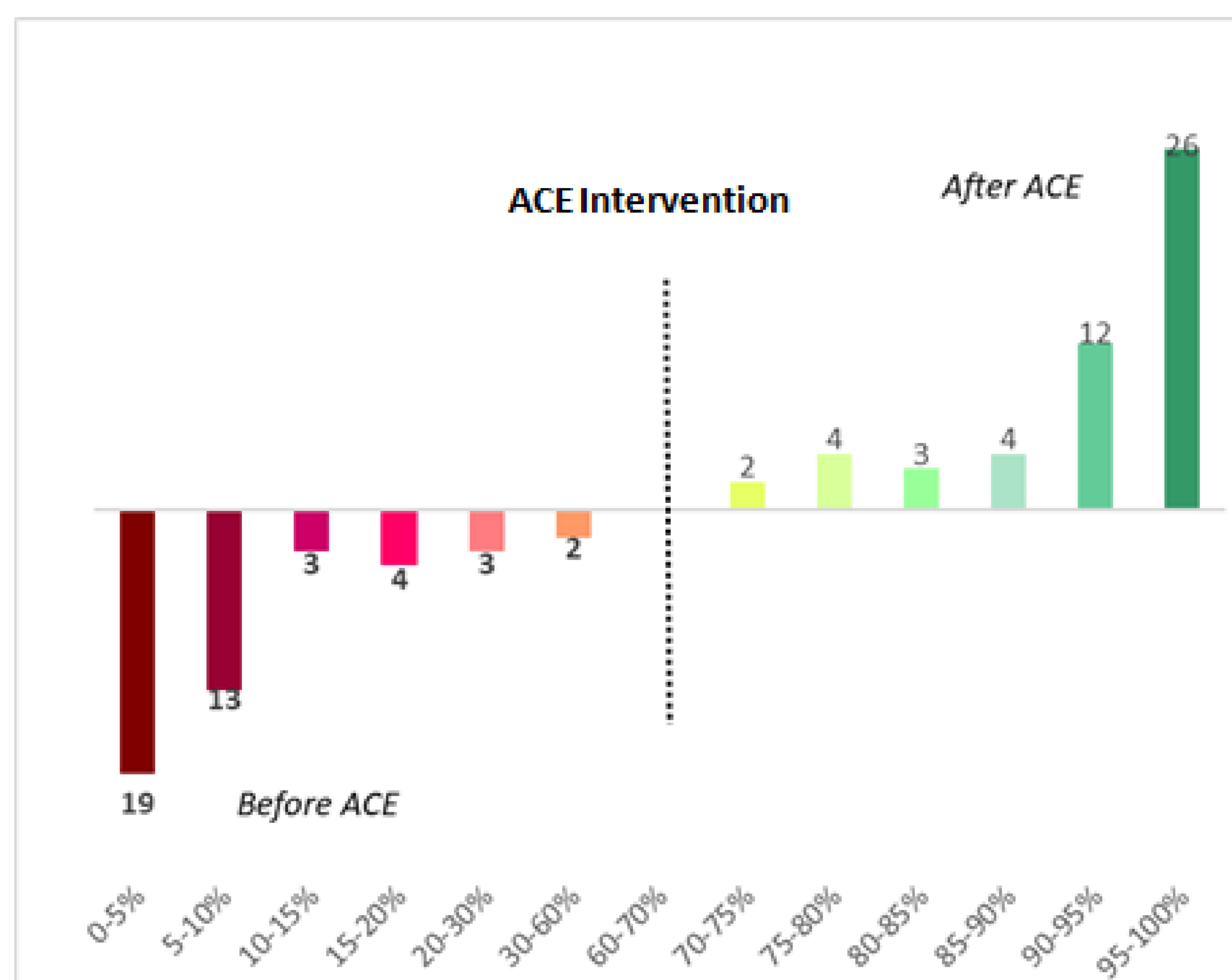
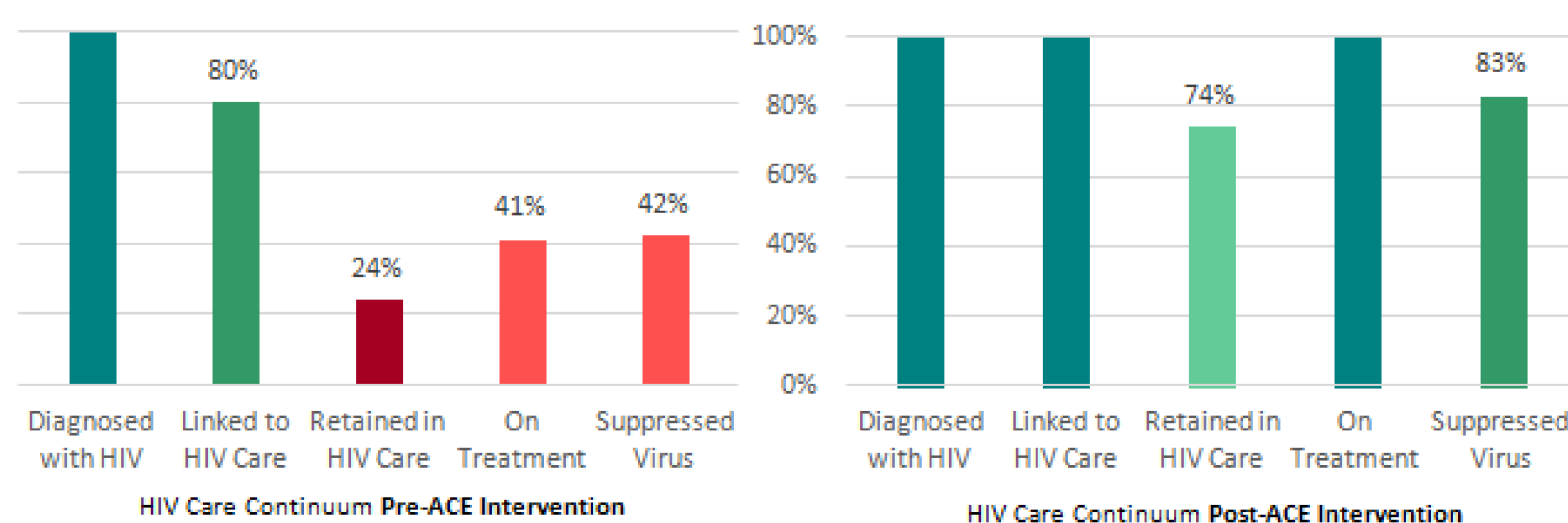


Figure 1. ART Adherence Rates Pre and Post ACE Intervention.

Program statistics on 51 clients who have been engaged with the ACE team for over 6 months helped evaluate the effectiveness of the ACE model of care.

### ACE improves adherence to HIV medications.

- Majority of clients have adherence rates over 95%
- Prior to ACE client's adherence rates to HIV medications was 0-5%



### ACE intervention improves viral suppression.

- Prior to ACE, 42% of the 117 clients referred were virally suppressed at the time of referral.
- After ACE, 83% of all clients who participated in the program are virally suppressed
- Viral suppression means no HIV transmission
- 56% of ACE referrals engage in IVUDU and 13% are active in the Edmonton sex trade (two high risk activities for transmission).

The HIV Care Continuum (above) depicts all the services people living with HIV need to achieve optimal health outcomes. It includes linkage to care, retention, and viral suppression. The ACE team is impacting and improving all aspect of the care continuum at this time except HIV testing and diagnosis since our clients are HIV positive when referred.

## Hepatitis C Care

- ACE connects with a high risk, marginalized population who prior to ACE was not engaging with health care services outside of emergency rooms and correctional facilities.
- 78% of referrals are HCV antibody positive with no follow up.
- All ACE clients were unfavorable hepatitis C treatment candidates due to their non-adherence, uncontrolled HIV and chaotic lives.
- ACE is actively stabilizing and treating hepatitis C in clients and their partners.
- ACE pharmacists are trained prescribers of hepatitis C treatment in Alberta as of May 2019.
- All 8 co-infected clients treated for hepatitis C thus far, achieved a virologic cure.
- The opportunity to treat and cure their hepatitis C has been a tremendous source of joy and pride for ACE clients.
- We have a lot more work to do in treating Hepatitis C.

## Health System Impact

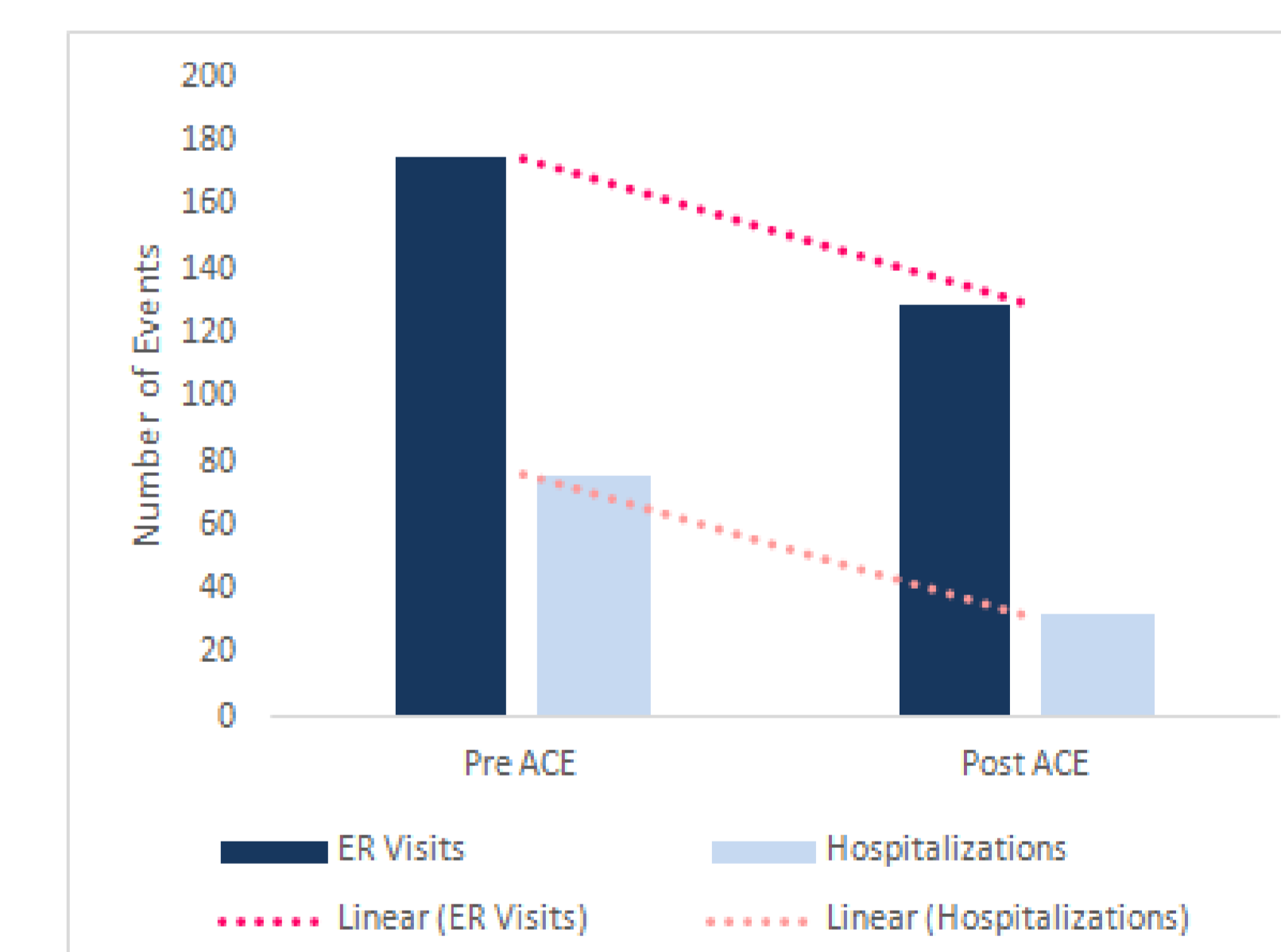


Figure 3. ACE Reduces Emergency Room Visits and Hospitalizations

As seen above, the ACE Team has delivered marked impacts on the health system, helping prevent inappropriate use of the emergency rooms (ER) by its clients, and reducing ER visits and hospitalizations related to substance use by 40% and 80%, respectively.

ACE intervention reduces overall hospitalizations by 58%, and ER visits by 26%. Additionally, ACE intervention shows a 69% decrease in the total days hospitalized and an average hospitalization stay of 9 days compared to 29 prior to ACE.

Based on conservative estimates ACE saves Alberta a net **1.2 million dollars** in healthcare costs annually

Ongoing funding and support to scale the program provincially are crucial next steps.