STR8 UP: Description of Intervention Models, Literature Review, and Cost Analysis of Program Activities 2015-2019

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1. Introduction

STR8 UP 10,000 Little Steps to Healing Inc. is a non-profit organization which aims to support individuals who want to abandon their gang lifestyle by providing them services and intervention programs. STR8 UP works in Saskatoon and the surrounding region with ex-gang members and their families to help support individuals as they embark on a healthier path. The organization describes itself as a "grassroots organization" that is driven by their members and volunteers. In 2012, the Centre for Forensic Behavioural Science and Justice Studies (CFBSJS) conducted a process evaluation for STR8 UP and published a report on the findings. The 2012 report included a literature review on gangs and gang intervention and prevention programs, a description of STR8 UP's programming, a process evaluation of the program, and recommendations for future activities and services of STR8 UP and gang prevention in Saskatoon.

In 2018, a community-engaged research study was conducted by Dr. Robert Henry to develop a potential community-led provincial street gang strategy through surveys, a community forum, and community consultations (Henry 2018). STR8 UP's achievements in gang prevention in Saskatchewan were highlighted in the research findings, and based on that, a consensus was reached to acknowledge STR8 UP as the community-based 'champion' to develop and implement the Provincial Gang Strategy. In 2019, the Government of Saskatchewan declared its Gang Violence Reduction Strategy and STR8 UP was selected as one of two organizations to deliver outreach, intervention and prevention services to help people leave gangs and reintegrate back into their communities for the upcoming four years in Saskatchewan. With this new role, STR8 UP entered into a new era where two separate, but interconnected, streams of programming are delivered by the organization.

In 2020, the CFBSJS was asked by STR8 UP to assist with their ongoing evaluation efforts. Specifically, it was decided that the CFBSJS would complete: a) a literature review of effective gang intervention models and practices; b) an updated description of STR8 UP's programs and services; and c) a cost analysis of the services and programs provided by STR8 UP between 2015 and 2019. Accordingly, the first section of this report presents a review of the literature on the effectiveness of various gang prevention and intervention programs implemented in Canada and other countries, measures of success used in those gang prevention and intervention programs, and best practices learned from those programs, including culturally sensitive approaches adopted by the programs to support disadvantaged groups and minorities. The second section of the report describes the two streams of programming provided by STR8 UP and presents a logic model outlining STR8 UP's activities and intended outcomes. The following sections of the report relate to the cost analysis, including the methods used to conduct the analysis; the findings of the cost analysis, which considers STR8 UP's paid and unpaid costs between 2015 and 2019, its cost per participant, and how STR8 UP's costs compare to the overall costs of crime; and the overall conclusions coming from this analysis.

2. Literature Review

Gang involvement and violent behaviours of the youth in Canada, specifically in Saskatchewan, has been a prevalent problem for the past few decades. Ten percent of homicide suspects in Canada between 2005 and 2014 were youth and almost one-third of those homicides were gang-related (Allen & Superle, 2016). During the same period, the proportion of gang-related homicides was greater for youth (29%) than for adults (14%). In 2018, Saskatchewan had the highest rate of gang-related homicides in Canada (0.69 homicide victims per 100,000 population)

with its rate being 50% higher than the national average (Statistics Canada, 2019)[1]. According to the 2010 evaluation report of the Saskatoon Gang Strategy conducted by the University of Saskatchewan, there were at least 13 known gangs in Saskatchewan and many urban and rural communities in the province were experiencing a steady growth in gang recruitment and gang-related crime (Tanasichuk, Hogg, Simon, Ferguson, & Wormith, 2010). In 2013, northern Saskatchewan was found to have over four times the rate of homicides, over nine times the rate of major assault, and 8.6 times the rate of common assault compared to southern Saskatchewan (Allen & Perreault, 2015). Further, the number of *Youth Criminal Justice Act* offences in the north was almost 4.5 times the number in the south (Allen & Perreault, 2015). Although, we can understand the prevalence of these gang-related crimes and youth involvement in these crimes, we do not know the current number of gang members in the province. However, according to an earlier estimation, Saskatchewan had the highest concentration of youth gang membership in Canada on a per capital basis, with 1.34 gang members per 1,000 people (Chettleburgh, 2003). Similarly, earlier figures showed that about 40% of the approximately 1,315 gang members residing in Saskatchewan operate within the cities of Regina, Saskatoon, and Prince Albert (Criminal Intelligence Service of Saskatchewan, 2005).

Involvement in criminal groups provides an "attractive" alternative for the youth who live in hopeless socio-economic conditions. This can be seen specifically in Indigenous youth due to their lack of access to resources, intergenerational trauma, and historical injustices against them (Grekul & LaBoucane-Benson, 2008). Based on his interviews with 16 ex-gang members from Indigenous communities in Canada, Henry (2015) concluded that colonization removed Indigenous peoples from full participation in Canadian society and its detrimental impacts have led some Indigenous men to find alternatives like gang involvement to gain power, respect, and financial resources to survive. In that sense, gang-involved persons are both the perpetrators of violence and the main victims of the gang violence. Thus, it is important to find opportunities to prevent at-risk persons from joining gangs, intervene in the lives of current gang members to deter them from further gang involvement, and encourage them to choose a prosocial life.

The traditional suppressive approaches to reduce gang involvement which prioritize incarceration and pure criminal justice intervention have not been an adequate remedy to the increasing amount of gang violence across different countries (Henry, 2015). However, community-based and proactive approaches have led to positive outcomes, such as desistance from crime and gang involvement, reduction in risk levels and increased prosocial behaviours (Fritsch et al., 1999; Lafontaine et al., 2005).

In this section, we will first describe the Provincial Gang Strategy that STR8 UP supported. Second, we will summarize the Gang Violence Reduction Strategy of the Government of Saskatchewan which was recently initiated. Third, to inform the programs and services of STR8 UP, we will review the literature on community-based intervention programs implemented in Canada and other countries and best practices in gang prevention. We also will highlight the culturally sensitive approaches adopted by those programs for Indigenous communities and other cultures that have had similar traumatic experiences and socio-economic challenges across the world.

[1] These rates are based on the number of homicide victims per 100,000 population in the cases where the homicide was linked or suspected to be linked to organized crime or a street gang.

2.1. Provincial Gang Strategy

In Saskatchewan, with the continued increase in gang violence across the province, there has also been an increasingly visible shift towards a community-based approach to address street gangs. The Provincial Gang Strategy has been developed to prevent and reduce gang activity in partnership with community-led initiatives, partners and stakeholders. In 2018, a community-engaged research study was conducted by Dr. Robert Henry to explore the views of Saskatchewan residents on a potential community-led provincial street gang strategy. Based on the findings of surveys, a community forum, community consultations, and an extensive literature review, Dr. Henry provided recommendations for the Provincial Gang Strategy (Henry 2018). One of the key recommendations was finding and supporting a community-based 'champion' to develop and implement the strategy. There was a consensus among the community participants that the most logical entity to take this responsibility would be STR8 UP.

There were three main reasons for the endorsement of STR8 UP as the champion of the Provincial Gang Strategy. First, STR8 UP has a history of building relationships in and across communities. Thus, they have access to individuals who are willing to exit street gangs and this knowledge will help to support the strategy moving forward. Second, STR8 UP has developed close relationships with key stakeholders and community agencies. Thanks to these connections across the province, STR8 UP can support community-led initiatives. Third, STR8 UP has proven that they have the potential to raise awareness on the issue by providing educational training to communities through their community presentations.

Within the efforts of developing the Provincial Gang Strategy, there were some other key recommendations gathered from the widespread community consultations:

- Localized approaches should be developed with a focus on education and training for community members.
- Prevention strategies should be implemented with increased programming and education around healthy family dynamics.
- Key services such as mental health, addictions and housing should be funded to ensure that the most vulnerable populations are cared for first.
- Funding of localized strategies should be sustainable.
- The lived experience of those who have been involved in street gangs should be incorporated when developing and implementing a gang strategy.

STR8 UP visited communities across the province and conducted nine community consultations between November 1, 2018 and March 31, 2019 to obtain feedback on these recommendations.

Upon feedback and recommendations from communities, STR8 UP called for the provincial and federal government to increase funding for gang prevention and intervention in accordance with the Provincial Gang Strategy.

2.2. Gang Violence Reduction Strategy

In parallel with STR8 UP's efforts to develop the Provincial Gang Strategy with recommendations and feedback from the communities, the Ministry of Corrections and Policing sought input from communities through consultation sessions in Regina, Saskatoon, Prince

Albert and File Hills Qu'Appelle Tribal Council. The consultations included 11 Indigenous organizations, two housing-support organizations, three victim service agencies, 23 outreach or support agencies and 12 government-based agencies including law enforcement and health authority agencies. In addition to the consultations, the Ministry examined three gang prevention programs implemented in the U.S.: Roca in Boston, Cure Violence in Chicago and Gang Reduction and Youth Development (GRYD) in Los Angeles.

Based on the consultations and examination of best practices, the Government of Saskatchewan announced in December 2019 that it had received $11.9 million funding as a part of the federal government's Take Action Against Gun and Gang Violence initiative to support the provincial Gang Violence Reduction Strategy. STR8 UP was announced as one of the two organizations that would implement the community intervention component of the strategy. Accordingly, STR8 UP will deliver the Community Intervention Model (CIM) in the north and central regions of the province[2]. Through this model, STR8 UP will provide outreach, intervention and prevention services to help people leave gangs and reintegrate back into their communities. A detailed description of the CIM is provided in Section 3.1. In accordance with the ROCA, CURE, and GRYD programs, the Government asked the agencies to use a three-phased approach occurring over four years in the CIM (Saskatoon Starphoenix, 2019). These phases are:

1- Relentless outreach (6 months): Continuous contact with clients and stabilization to address immediate problems.
2- Transformation (Up to 2 years): Developing relationships that motivate clients to build skills and make changes in their lifestyles.
3- Support and sustainment: (Up to 2 years): Ongoing support while involvement from community intervention workers is reduced.

With the CIM, the Government of Saskatchewan aims to reduce gang crime in communities across Saskatchewan, help clients reduce contact with the justice system, and promote a connection to employment, educational or training opportunities. The Government of Saskatchewan estimates that the two organizations are expected to provide services to approximately 100 gang-affiliated individuals over four years beginning from 2020.

The strategy also includes expanding the Dedicated Substance Abuse Treatment Units into additional correctional facilities; reallocating provincially funded police units to Crime Reduction Teams in Regina, Saskatoon and Prince Albert; and improving intelligence gathering and sharing between police agencies. This strategy is in line with the Government of Saskatchewan's Plan for Growth to 2030. In this plan, it is stated that gangs and illegal drug trafficking are driving much of the crime currently being experienced by communities across the province. To address this problem, the Government aims to continue implementing the Gang Violence Reduction Strategy by working with provincial and federal partners on further crime reduction initiatives. In addition, the Government aims to expand Crime Reduction Teams to Regina and Saskatoon and realign the Combined Forces Special Enforcement Units to the Crime Reduction Team model with a focus on targeting street level organized crime. Also, within the Crime Reduction Team program, the Government aims to improve coordination and cooperation between RCMP and municipal police forces with a focus on targeting and disrupting street gangs that are trafficking crystal meth and fentanyl.

[2] Regina Treaty Status Indian Services Inc. (RT/SIS) will deliver the program in South Saskatchewan.

2.3. Literature Review

In this review, we summarized programs and strategies used in gang prevention across Canada and United States to inform the intervention models and strategies of STR8 UP. We reviewed the intervention methods used in the programs, the outcomes of those intervention methods, the measures used to evaluate the success of the programs, and best practices that the research suggested. We also highlighted the culturally sensitive approaches used in the intervention methods included in this review. The best practices, strategies, and culturally sensitive approaches reviewed in this study can be adopted into the intervention models of STR8 UP. The findings in the review will also help STR8 UP to address the key recommendations in the Provincial Gang Strategy including, but not limited to, developing localized and sustainable approaches in gang prevention, increased programming around healthy family dynamics, mental health, addictions, education, employment, and housing.

2.3.1. Intervention Programs

We reviewed thirteen gang prevention programs implemented in United States and Canada during the last few decades. The gang prevention programs reviewed in this study have used various intervention methods to reduce the involvement of participants in gangs and violent behaviours. First, we reviewed the three programs that the Government of Saskatchewan examined when developing the Gang Violence Reduction Strategy and the Community Intervention Model adopted by STR8 UP: the Roca Program in Boston, Cure Violence Program in Chicago, and Gang Reduction and Youth Development (GRYD) in Los Angeles. Then, we discussed the programs implemented in Canada, specifically in Saskatchewan and Prairies Region, which included culturally sensitive approaches for addressing gang involvement among Indigenous communities and youth, such as the Prince Albert Outreach Program, Regina Anti-Gang Services (RAGS) Project, Ogitiija Pimatiswin Kinamatwin (OPK) Program, and Hobbema Community Cadet Corps (HCCCP) Program. We also reviewed programs that incorporated practical components to provide employment skills and opportunities to participants such as Homeboy Industries and Building, Uplifting and Impacting Lives Daily (BUILD). School-based programs like Gang Resistance Education and Training Program (G.R.E.A.T) and Juvenile Intervention and Prevention Program (JIIP) were also reviewed to underline the importance of an education component in gang prevention strategies.

Roca Program

The Roca program has been implemented in Massachusetts since 1998 and targets both male and females between 16 and 24 years of age who are at-risk of being involved with organized crime, those who are involved with the criminal justice system (such as probation), and those who are living on the streets or within emergency homes (Brown & Teigen, 2014). ROCA uses a four-phased intervention model:

1. Determining Eligibility (2-Months)
2. Building Trust (4-Months)
3. Behaviour Change (18-Months)
4. Sustaining Change (24-Months)

The program is based on a theory of change which suggests that young people, when re-engaged through positive and intensive relationships, can change their behaviours and develop life, education, and employment skills to disrupt the cycles of poverty and incarceration. The

intervention model of Roca is based on four elements: (1) Relentless Outreach and Follow-Up; (2) Transformational Relationships; (3) Stage-Based Programming; and (4) Working with Engaged Institutions.

Roca's relentless outreach is conducted by Youth Workers. The Youth Workers find the young people, knock on their doors and bring them to programming. The idea of relentless outreach is based on the fact that the consistency of a Youth Worker's efforts to engage a young person, even in the face of rejection, begins to create the conditions for long-term behaviour change.

Through consistent attempts to bring the youth in the program, Roca aims to build trust and enable the transformational relationship between the Youth Worker and the young person. The staff of Roca believe that people can change through relationships, mutuality, shared experience, and a sense of responsibility.

Roca's programming focuses on three core areas: Education, Life Skills, and Employment. Training in these three areas are offered by ROCA in various informal and formal structures, from repeat drop-in sessions to full certificate courses. This allows young people at varying stages of readiness to learn critical skills as they progress through the Intervention Model.

Roca has developed a Cognitive Behavioural Theory (CBT) curriculum in collaboration with the Community Psychiatry PRIDE Clinic at Massachusetts General Hospital/Harvard Medical School. The CBT curriculum addresses the specific needs of high-risk young adults, teaching them how to "think different to act different". CBT allows the clients to develop emotional literacy and overcome behavioural barriers so they can build skills and fuller lives. In addition to CBT, life skills programming includes substance abuse groups, healthy habits classes and parenting classes.

In Roca's Transitional Employment Program, participants join Roca's work crews and earn real wages while learning basic work skills. In addition, Roca offers workforce readiness curriculum, pre-vocational training and job placement and retention services. Most of Roca's clients have no employment history and criminal records, factors which limit their employment opportunities considerably, so job readiness and placement are crucial to participants' success.

Roca works with Engaged Institutions to promote transformational relationships between all of the organizations and parties responsible for the high-risk youth in the community. This approach has led to an enhanced dialogue and action among agencies and a systemic change in how the communities address the needs of the at-risk youth and reduce crime and incarceration. The Engaged Institutions of Roca include police departments, state and municipal government branches and agencies, the Courts, community-based agencies, private businesses, and foundations.

An evaluation of Roca program found that, in the last two years of the four-year program, 89% of 115 participants had no new arrests and 69% were still employed. In comparison to similar populations, the incarceration rates of program participants reduced 65% over five years and their employment rates increased 100% (Brown & Teigen, 2014). The stage-based programming of Roca is adopted in the Community Intervention Model of STR8 UP with some nuances. Also, the Transitional Employment program of Roca is similar to the BUILD component of STR8 UP.

Cure Violence Program

Cure Violence was founded and launched in Chicago in 2000 with the objective to reduce violence globally using disease control and behaviour change methods (Cure Violence, n.d.). The program is based on the following key ideas:

- Violence is a health issue,
- Individuals and communities can change for the better,
- Community partners and strategic partnerships are keys to success,
- Rigorous, scientific, professional ways of working are essential for effectiveness.

Since its launch in Chicago, the activities of the program expanded to Baltimore, New York, New Orleans, Oakland, Loiza, Puerto Rico and other sites. Since 2008, Cure Violence began to be implemented internationally including but not limited to Iraq, Canada, Colombia, Kenya, and United Kingdom. Cure Violence has also provided training in violence prevention techniques to representatives from other countries.

Guided by its key ideas, Cure Violence works to prevent violence by using the following methods and strategies (Cure Violence, n.d.):

1. **Detecting and interrupting conflicts**: Program staff aim to prevent shootings by identifying and mediating potential conflicts in the community by working with the victims and other people connected with the event. Workers also identify ongoing conflicts by talking to key people involved in the events and use mediation techniques to resolve them peacefully. In the long run, workers follow up with the parties to ensure that the conflict has been permanently resolved.

2. **Identifying and treating the highest risk individuals**: Outreach workers meet the identified high-risk individuals, try to convince them to reject the use of violence by talking to them about the potential outcomes of violence, and connect them to the social services they need such as training and treatment. In addition, workers develop a case plan for the clients to address their needs such as drug treatment, employment, and having a prosocial life.

3. **Changing social norms**: Outreach workers also work with leaders in the community and engage them in an effort to reduce the use of violence. For instance, workers may organize a response to a shooting event where dozens of community members voiced their objection to the event. Materials are distributed and events are organized to convey the message that violence is not acceptable in the community.

In addition to shooting events, Cure Violence has also been adapted to other types of violence such as domestic violence, gender-based violence, belief-inspired violence, sectarian violence, prison violence, post-conflict violence, election violence, school/mass shootings, and suicide.

The outcome evaluations of the Cure Violence programs indicated that the model helps to reduce violence in communities. For example, there was a 31% reduction in homicide, a 7% reduction in total violent crime, and a 19% reduction in shootings in the targeted districts of Chicago in the program intervention year compared to the preceding year (Skogan, Hartnett, Bump, & Dubois, 2009). Similarly, the Cure Violence program led to a 63% decrease in the shooting events in New York City (Butts, Bostwick, & Porter, 2014), and a 30% decrease in Philadelphia (Roman et al., 2018).

Cure Violence program's consideration of violence as a health issue or an illness that can be transmitted among individuals coincides with the theory of change of STR8 UP which is based on the Medicine Wheel Philosophy. Accordingly, STR8 UP adopts the Medicine Wheel Philosophy of harm and healing which posits that gang violence and related problems do not stem from any perceived lack of morals but are the social manifestation of health deprivations (Orton et al., 2012).

Gang Reduction and Youth Development (GRYD) Program

Gang Reduction and Youth Development (GRYD) is a project for gang prevention and intervention services which has been implemented by the City of Los Angeles since 2007 in 23 communities across the city that are most impacted by gang violence (Cahill et al, 2015).

The strategies used by GRYD are similar to those of the Office of Juvenile Justice and Delinquency Prevention (OJJDP) Comprehensive Gang Model, an evidence-based gang intervention model developed by the U.S. Department of Justice. The OJJDP Comprehensive Gang Model was developed in the 1980s and evaluations of the program found a reduction in gang-related crime and violence in the communities where the program was implemented (Parker et al., 2014). The main elements of this model include street outreach workers, a multidisciplinary intervention team, and coordinated case management of clients' needs and services. These elements enable a collaborative, multi-agency framework that helps the program expedite services, break down barriers, and share information to serve youth more effectively. Two aspects of the program are unique. First, a primary component of the GRYD is community engagement. Second, suppression is not a component of the program. Instead, the program cooperates with the Los Angeles Police Department (LAPD) to develop a more comprehensive prevention program which goes beyond a pure suppression approach (Tremblay, Herz, Zachery, & Kraus, 2020).

Specifically, GRYD's efforts are guided by four foundational strategies:

- **Community engagement**: Education of the community through campaigns, programs, events and partnerships.
- **Gang prevention**: Prevention of gang involvement through strengthening the family and building resilience to risk factors for gang membership for at-risk youth.
- **Gang intervention**: Increasing prosocial connections among gang-involved youth through case management.
- **Violence interruption**: Response to gang violence through proactive peacemaking and incident response

To achieve its goals, the GRYD Comprehensive Strategy included six interrelated approaches:

1. **Primary Prevention**: Activities to build resistance of the entire community against gang-related risk factors and gang violence. These activities have included the Gun Buy-Back program and a Community Education Campaign on gang risk factors for community members.
2. **Secondary Prevention**: Providing services to high-risk youth ages 10–15 years. Secondary Prevention services consist of seven phases: Referral/Collaboration, Building Agreements, Redefining, Celebrating Changes, Mainstreaming, Next Level Agreements, and Reevaluation.

3. **Intervention—Family Case Management**: Direct family case management services are for youth ages 14– 25 years who are engaged in gangs. The program aims to identify the challenges of the youths and provide them with alternatives to leave the gang. The program works directly with the enrolled youth and their families and deliver services over seven phases: (1) Referral and Assessment, (2) Building Agreements, (3-6) Ongoing Case Management and Linkage to Services, and (7) Reassessment.
4. **Intervention—Incident Response**: Immediate crisis response to gang-related violent incidents is implemented by a team involving the police, outreach workers, and program coordinators. Crisis response aims to maintain peace both before and after violent incidents and to prevent further issues such as retaliatory violence.
5. **Community Engagement**: The program engages the community broadly into all its work rather than designating specific activities.
6. **Suppression**: GRYD activities do not include targeted suppression activities, but the program communicates with the police to recognize and support the importance of suppression as an element of a comprehensive anti-gang strategy (Cahill et al, 2015).

Cahill et al. (2015) conducted a comprehensive evaluation of the GRYD program implemented between 2011-2014 and found a reduction in the risk scores of the youth ranging from 13% to 42%. A more recent evaluation of the program showed that, after receiving the program services for 6 months, the risk of gang involvement was reduced for 58% of the participants to the point where they were no longer eligible for services (GRYD Research & Evaluation Team, 2017). The program also led to a 79% decrease in gang-related homicides and a 21% decrease in gang-related aggravated assault cases in Los Angeles. The specific focus on community engagement and family case management in the GRYD serves as exemplary strategies for STR8 UP. The education programs for communities provided by GRYD are similar to the community and school presentations of STR8 UP.

Prince Albert Outreach Program

Prince Albert Outreach Program Inc. implemented the Youth Alliance Against Gang Violence (YAAGV) Project in Prince Albert, Saskatchewan between the years 2007 and 2011 (Totten et al., 2012). The program is also known as the Warrior Spirit Walking Project (WSWP) and served 147 participants aged 12 to 21. YAAGV was a community-based crime prevention program that used the Circle of Courage Approach as its foundation and incorporated elements of Wraparound and Multisystemic Therapy (MST) into the design. The program was designed to meet the needs of Indigenous youth who were gang-involved or at risk of gang involvement. The program sought to ensure:

- Youth attachment to school,
- Youth employability and life skills,
- Reduced youth involvement in gang-related violence and crime,
- Youth literacy skills and high school completion rates.

The Circle of Courage approach is the foundation of the YAAGV/WSWP and the program adopted a model of Positive Youth Development (PYD). The PYD framework aims to promote social inclusion by enabling all youth to achieve their fullest potential (Totten et al., 2012). The model integrates basic knowledge about youth development and essential community conditions. The model is based on the four values of the medicine wheel: (1) Belonging; (2) Mastery; (3) Independence; and (4) Generosity. In regard to the PYD framework, the model integrates basic knowledge about youth development and essential community conditions to promote social

inclusion where all youth, including the most vulnerable, can achieve their fullest potential. The Circle of Courage approach is based on the idea that risk factors for children and youth are related to living in hazardous environments characterized by discouragement. Through the Circle of Courage process, environments are changed to promote courage as a key factor to meet the needs of young people and reclaim them from high risk lifestyles.

The goal of the YAAGV/WSWP is to increase protective factors and reduce risk factors for youth involved with gangs and youth at-risk of join gangs. There are six general program components: (1) Counselling; (2) Presentation Team; (3) Senior and Junior Won Ska Cultural Schools; (4) Youth Activity Centre; (5) Van Outreach; and (6) Court Outreach (Public Safety Canada, 2018).

An outcome evaluation of the YAAGV program was conducted by Totten and Dunn (2012) for the years 2007-2011 during which 147 clients participated in the program. Results indicated that the conflict resolution skills of the clients increased by 65% between program entry and six months post-program entry, and the acceptance of gangs among the clients declined by 38% and 42% between program entry and 24 and 30 months post-program entry, respectively (Totten & Dunn, 2012). Prince Albert is one of the targeted communities of STR8 UP. The strengths and challenges that the YAAGV/WSWP experienced can shed light on the development of the intervention models and strategies used by STR8 UP.

Regina Anti-Gang Services (RAGS) Project

Regina Anti-Gang Services (RAGS) Project was developed in 2007 in response to the high level of gang activity in the North Central neighbourhood of Regina. The program targeted Indigenous youth and adults aged 16-30 years-old who were current or former gang members or at-risk of gang involvement. RAGS aimed to engage clients in intensive daily services to reduce their involvement in gang life and facilitate their exit from gangs (Totten et al., 2011).

Referrals to the program were made by the courts, the police, schools, and other community organizations serving high-risk youth, such as social service agencies, faith-based organizations, and youth agencies. Youth could also be self-referred or referred by peers and family members (National Crime Prevention Centre, 2012).

RAGS was centered on conflict resolution; counselling and social work; leadership and youth development; skills training; and social emotional learning. The project provided its clients with four core programs which were gender responsive and culturally competent and sensitive:

1. **Life Skills Programming for Young Men**: Group training, education and skill-based learning on topics such as exiting gangs, violence, personal awareness, problem solving, healthy relationships, parenting and fathering, addictions, team building, empowerment, behaviour modification, and literacy;
2. **Circle Keeper Program for Young Women**: Gender-specific life skills and traditional cultural training for women who were in a gang (or connected to one) to support their exit from the sex-trade and gangs through education;
3. **Intensive Gang Exit Counselling**: Individual, crisis, and family counselling sessions targeting specific goal areas, such as safe exit from gangs, parenting, self-esteem, and life skills development; and
4. **Outreach to Schools and Institutions**: Engaging potential RAGS participants through schools, correctional centres, courts and, occasionally, on the streets.

In addition, the activities within the RAGS Project included weekly intensive individual/ family/group crisis counselling and daily cultural/traditional faith-based support. The final evaluation of RAGS indicated that the risk levels and gang involvement of the participants reduced over time (Totten, et al., 2011).

Ogitiija Pimatiswin Kinamatwin (OPK) Program

Ogitiija Pimatiswin Kinamatwin (OPK) Program began in 2001 as an initiative of gang members themselves. The program targets Indigenous men from the age of 16 to 40 years old in Winnipeg, Manitoba who have had involvement with gangs, and/or the criminal justice system and wish to leave the criminal activity of the gang (Bracken, Deane, & Morrisette, 2009). The clients are mostly referred by correctional institutions among the inmates who are in the provincial and federal institutions serving a sentence less than two months. OPK also works with all young people of all backgrounds and genders who are in a vulnerable state and in need of assistance.

The priority of the OPK for the participants is their desistance from crime rather than retreating from social networks. That is to say, the program does not require participants to cut their connections with other gang members or to state that they have left the gang. Instead, the program expects from participants to desist from criminal behaviours. The idea behind this approach is that it is unrealistic to ask gang members who are already socially isolated from society to cut their connections with friends who are still gang members (Deane et al., 2007).

The theory of change of the OPK program is based on the acquisition (or re-acquisition) of traditional Indigenous culture and values. The OPK uses a holistic approach to educating, transitioning, and healing gang members who want to heal from antisocial behaviours. The OPK program begins with the individual's decision to enter the program while in prison, after released from either provincial and federal facilities, or "word from the street". The program is provided by workers and trainers who are of Indigenous descent (First Nations and Métis), ex-offenders, and Elders (Bracken et al., 2009).

OPK offers the following services to the participants:

- Consultation regarding mental health, school, child and family services (CFS), addictions and the justice system
- Consultation and direct service for gang affected youth and families
- Links to community resources
- On-call crisis response, support and wraparound service (16 hours/day 7 days/week)
- Knowledge and advocacy around housing, income assistance, emergency shelter, crisis services, probation, and mental health.
- Assistance to the participant's case manager (CFS workers, Probation officers, Mental Health workers.)
- Connection to the Indigenous traditional community
- Recreational activities
- Donations of furniture for the youth and families
- Help to families who need to move
- Work experience including community service activities (O.P.K., n.d.).

The program also provided the participants with an employment opportunity in an inner-city non-profit housing renewal project. Training for these jobs was provided by Indigenous trades persons who were themselves ex-offenders.

Deane et al. (2007) examined the records of 34 participants involved in the OPK program between 2001 and 2006. During the period of program operation, there were no arrests among participants for gang-related or gang-motivated offences. The program still continues to be implemented; however, the only available evaluation was conducted 14 years ago. An updated evaluation of the program outcomes is needed. The OPK and STR8 UP have several common aspects including their focus on cultural teachings, the target population that they serve, providing employment opportunities in the construction sector, and including ex-gang members in the implementation of the program.

Hobbema Community Cadet Corps (HCCCP) Program

Hobbema Community Cadet Corps (HCCCP) Program targeted First Nations youth between the ages of 6-18 years of age from Hobbema, Alberta[3] (Grekul & Sanderson, 2011). The HCCCP is an initiative that aims to deter criminal behaviour among young people, including gang involvement, by providing its members with a prosocial alternative to criminality. The HCCCP was initiated in 2005 by two members of the RCMP, and since then, around 1000 youth have become members of the HCCCP.

The HCCCP is a combination of the best practices of the Royal Canadian Army, Air & Sea Cadets; Boys & Girls Clubs; Big Brothers & Big Sisters; Scouts & Girl Guides; and D.A.R.E. programs (HCCCP, n.d.). The program was developed to reduce crime, violence, school bullying, drug abuse and gang association in the community of Hobbema. The HCCCP is an interactive crime reduction initiative that is owned and administered by the Hobbema cadets to provide a positive safe peer network to reduce the fear factor that the gangs and drug dealers use daily in the village of Hobbema. The program's strength and growth are dependent upon community acceptance, empowerment and partnership with the youth, their families, Elders, the four band Chiefs & Councils, schools, federal and provincial government agencies, police, and community members. Ultimately, the goal of the program is to enable youth to live in harmony with their community while preparing them for future educational, occupational and leadership positions and making positive choices and changes in their respective communities and the world without sacrificing their Indigenous culture, spirituality, traditions, and language (HCCCP, n.d.).

The activities organized for the participants are drill (marching/discipline); organized sports; self-defence; fitness; education to deter substance use and bullying; sex education; cree language education; community awareness events; firearm safety training course; guest speakers for skill development; life and employment skills development; recruitment programs organized by various organizations such as RCMP, Canadian Armed Forces, and Canadian Pacific Railway; educational scholarships and program development by Grant MacEwan College, Norquest College, and University of Alberta; Music Education, Animal Rescue Society events, and Chief & Council Monthly Meetings (HCCCP, n.d.). Through these structured and goal-oriented events and activities, the HCCCP aims to provide alternatives to criminal behaviours and gangs (Grekul & Sanderson, 2011).

[3] The official name of Hobbema was changed as Maskwacis in 2013 (Source: http://samsoncree.com/name-change)

To date, the program has not been comprehensively evaluated. A developmental evaluation was conducted by Grekul and Sanderson (2011), which entailed a document review and the analysis of a survey completed by the cadets asking their expectations of the program, their reasons for joining and what they felt they gained from their participation. More than half of the cadets (54%) said that the program was what they expected. The program has faced several challenges such as a lack of engagement from the community and Elders, conflicts between the leadership of the four bands in the area, limited funding, and low level of attendance by the participants. Similar challenges, especially those related to minimal community and parental engagement in the program, limited resources and funding, and low attendance by participants, were also documented in an evaluation of Community Cadet Corps in Saskatchewan (Jewell & Camman, 2014). The challenges experienced in the community engagement component of the HCCCP can serve as a lesson learned for future programs and suggests that the approach taken by STR8 UP may be more successful than the approach taken by the HCCCP.

Homeboy Industries

Homeboy Industries is a gang rehabilitation and re-entry program which was founded in Los Angeles in 1988 and reached arguably the widest target audience in the world (Homeboy Industries, n.d.). The program provides training and support to former gang members and previously incarcerated individuals to enable them to have a prosocial life and social network. Approximately 180 individuals are offered employment through an 18-month program that focuses on healing from trauma through case management, developing work readiness skills, and enabling them to contribute to their family and community. Within the training program, participants also receive case management services; mental health treatment; legal services; academic, life skills, arts, and word readiness classes; and tattoo removal service. The five key goals of the program are to: 1) Reduce recidivism, 2) Reduce substance abuse, 3) Improve social connectedness, 4) Improve housing safety and stability, and 5) Reunify families.

In 2014, the program launched the Global Homeboy Network to spread the word and bring people together to work toward social justice, advocate for marginalized populations, and to strive to break the recidivism cycle by addressing the adverse effects of incarceration. Today, over 250 organizations around the world have joined the network to create therapeutic communities that offer job skills training, cost-free programs and services, and social enterprise employment.

An evaluation of the Homeboy Industries program suggested that participation in the program led to a significant decrease in criminal acts and disengagement from gang activity (Leap, Franke, Christie, & Bonis, 2010). Four services provided by the program were strongly associated with positive outcomes on several client goals: (1) alcohol and drug rehabilitation; (2) anger management and domestic violence; (3) mental health services; and (4) tattoo removal. When participants were asked about the key services they received during the program that are most effective in their job success, five themes emerged: (1) ending gangbanging and replacing it with positive activities, including jobs; (2), establishing a new identity; (3) improved parenting and family relationships; (4) overcoming drug and alcohol addiction; and (5) establishing plans for a future (Leap et al., 2010).

Building, Uplifting and Impacting Lives Daily (BUILD)

Building, Uplifting and Impacting Lives Daily (BUILD) is a non-profit organization that was founded in February 2009 in the Durham Country of North Carolina, U.S. The organization

initiated the Project BUILD, a program targeting youth and adolescents between the ages of 14-21 years who are gang members or potential gang members (Parker, Wilson, & Thomas, 2014).

Project BUILD also uses the OJJDP Comprehensive Gang Model. The program targets individuals, ages 14-21 years, who are active and former gang members, or who are at high risk of joining a gang. Individuals referred to the program are assessed and then assigned to an outreach worker (Stuit, 2018). The outreach worker meets with the youth 2-3 times a week and supports them with the issues they have in home, school, employment and other areas. An Intervention Team consisting of BUILD staff and representatives from the school district, juvenile justice, law enforcement, and mental health providers meets the youth 1-2 times each month. At these meetings, team members provide their input to create a case plan for the youth. The program organizes various activities for the youth including summer camps, outdoor recreation, entrepreneurship opportunities and local college tours (Stuit, 2018).
The methods used in the Project BUILD include:

1. **Community Mobilization**: Soliciting the support of the community in responding to issues concerning youth and gang problems.
2. **Opportunities Provision**: Providing educational and employment opportunities as a means of setting and accomplishing goals and increasing productivity.
3. **Suppression**: Partnering the community and community-based agencies in an effort to reduce crime, violence, and harm in the community.
4. **Social Intervention**: Addressing social deficits and issues such as mental health, family dysfunction, substance abuse and other factors that will diminish an individual's ability to disengage from the gang and gang activity.
5. **Organizational Change and Development**: Improving the ability of organizations and agencies to respond to gangs through education and communication (Parker et al., 2014).

Service delivery in BUILD program occurs in 4 stages.

1. **Assessment/Engagement** (3-4 months) Building a relationship with the client and identifying needs, goals, strengths and risks.
2. **Stabilization** (3-4 months): Ensuring the clients are retained in the program and engaged in the program activities.
3. **System of Support** (2-4 months): Focusing on connecting the client to mainstream activities while focusing on long-term support for behavioral changes.
4. **Self-Maintenance** (2-6 months): Providing aftercare to clients who have successfully made behavioural changes (Stuit, 2018).

An evaluation of the BUILD program in North Carolina examined the records of 328 clients who exited the program (70% of the referred participants) between 2010 and 2017 and received 11 months of programming on average. Findings indicated that 64% of clients had no post-exit conviction record (Stuit, 2018).

Gang Resistance Education and Training Program (G.R.E.A.T)

Gang Resistance Education and Training Program (G.R.E.A.T) is a school-based gang and violence prevention program delivered by law enforcement officers within a school setting across the U.S. targeting youths as they begin middle school. The program has three primary goals:

1. teach youths to avoid gang membership
2. prevent violence and criminal activity; and
3. assist youths to develop positive relationships with law enforcement (Esbensen et al., 2011).

The G.R.E.A.T. program was originally developed by the Phoenix Police Department in 1991 and consisted of nine lessons taught by uniformed law enforcement officers. G.R.E.A.T. was a cognitive-based program that taught students about crime and its effect on victims, cultural diversity, conflict resolution skills, meeting basic needs (without a gang), responsibility, and goal setting. In line with the curriculum taught in schools, teachers were requested to complement the program content during regular classes. In 2003, the G.R.E.A.T. program was expanded to 13 lessons and the curriculum was revised through consultations with educators and prevention specialists and also informed by the growing body of research on risk factors behind youth gang involvement (Esbensen et al., 2016).

The revised G.R.E.A.T. program was guided by two school-based programs: the Seattle Social Development Model (SSDM) and Life Skills Training (LST). The SSDM is a comprehensive model that seeks to reduce delinquency and violence by building a positive learning environment incorporating several different classroom management components, including cooperative learning, proactive classroom management, and interactive teaching (Catalano, Arthur, Hawkins, Berglund, & Olson, 1998). The LST program is a three-year intervention in which two annual booster sessions supplement the initial program (Dusenbury & Botvin, 1992). LST consists of three components: (1) self-management skills; (2) social skills; and (3) information and skills that are directly related to the problem of drug abuse.

The G.R.E.A.T. Program is administered by the Office of Juvenile Justice and Delinquency Prevention (OJJDP) in the U.S. Department of Justice. Since 1991, more than 12,000 law enforcement officers have been certified as G.R.E.A.T. instructors, and more than 6 million students have graduated from the G.R.E.A.T. Program (Esbensen et al., 2011).

Similar to the school-based on approach in the G.R.E.A.T. program, STR8 UP's school presentations given by its members aim to raise awareness among youth towards avoiding gang involvement and presenting ways to have a healthy lifestyle and prosocial network.

An evaluation conducted one year after the G.R.E.A.T. program started showed that gang involvement among the students who received the program was 39% lower than those who did not, and four years after the program started this rate was 24% (Esbensen, Peterson, Taylor, & Osgood, 2012). A survey implemented with the personnel of schools where the program was implemented found very high support from the personnel for the program (91%) and that the majority of teachers (80%) and administrators (88%) thought that the program taught students the skills needed to avoid gangs and violence (Peterson, Panfi, Esbensen, & Taylor, 2009).

Juvenile Intervention and Prevention Program (JIIP)

Juvenile Intervention and Prevention Program (JIIP) is a school-based gang intervention and prevention program in Los Angeles that targets at-risk high-school students by using a systemic approach and a holistic perspective in which all aspects of a child are treated and supported (Koffman et al., 2009). JIPP considers at-risk youth to be those who are vulnerable to personal and collective trauma and considers how these issues can be addressed through measuring risk factors that lead to delinquent and criminal behaviour. In this program, the primary risk factor

considered is the community setting, including how this setting links to trauma and how trauma can lead to poor academic performance along with social and mental health issues.

Focusing on the following four micro-intervention areas, the JIPP works to address the barriers for success among at-risk youth.

1. **Biobehavioural** (Resistance stage - 6 weeks): Biobehavioural physical training curriculum is designed to reduce resistance to psychological and behavioural change. This component is administered by the Los Angeles Police Department and requires physical training that will distill positive behaviour and self-esteem.

2. **Psychosocial-emotional** (Empowerment - 2 x 6 weeks): The first part of the Empowerment component focuses on providing training on cognitive, behavioural, and mindfulness strategies that have been linked to self-efficacy, resilience, reduced rates of depression and PTSD, and increased academic achievement. The second part of this stage, the Ripples Effects course, is designed to promote leadership skills and address social responsibility. The course focuses on problem-solving and conflict resolution skills for youth who turn to drugs and alcohol for emotional numbing and trauma.

3. **Academic** (Leadership - 6 weeks): The third component focuses on the previous students who have completed the first two components of the intervention. These students are chosen to be the leaders for the remainder of the program and encouraged to become positive peers and mentors through a personalized leadership instruction. The selected students who are qualified for the last component are required to wear the Black Shirts that represents leadership. With these Black Shirts, the LAPD's Explorer Program is for qualified students who seek the law enforcement as their future career and are instructed to become better citizens within their community.

4. **Family system support** (18 weeks): The course is designed for families who are at-risk of living within a violent and criminalized community. The families are taught new, proactive parenting skills in an atmosphere of love, respect, and compassion. With this course, the parents are required to attend the sessions on time, learn from others, and be open to new strategies of parenting skills. Followed by the course, parents continue to learn new skills outside the sessions of the classroom.

The holistic approach of the JIIP, especially the inclusion of family support, is similar to STR8 UP's holistic approach where families are also included in their outreach model. Specifically, in the transformation phase of the Community Intervention Model, STR8 UP aims to re-integrate its members with their families and reunify families. Designated courses, such as those that the JIIP provided to families, can be very helpful in rebuilding broken relationships and enhancing parenting skills lost during incarceration or gang membership.

An impact evaluation of the JIIP at a high school in Los Angeles used three measures: depression, behavioural change (discipline referrals, suspension rates), and academic test scores (Koffman et al., 2009). Findings indicated that depression scores of the students declined, and the number of students who fit into the normal range of depression scores increased from 35% to 66%. Also, the number of days of suspension decreased by 50%, and the number of incidents of suspension decreased by more than 90%. Suspension rates for disruptive or defiant behaviour have decreased by more than 70%. The program also enhanced the academic capacity of the students. Most students showed improvement in both English and math test scores after

completing the program. In English classes, 25% of students increased their scores 10% or more after the intervention and, in math classes, 36% achieved the same level of improvement (Koffman et al., 2009).

The family system support as provided in the JIIP can specifically help Indigenous peoples who lost or could not improve their parenting skills due to the longstanding effects of intergenerational trauma that their communities have been experiencing. Similar to the JIIP, STR8 UP gives special importance to family support and its role in healing from the trauma that its members have been experiencing. Designated courses for families on the proactive parenting skills will help not just the current members but also protect the new generations from being involved in antisocial networks and behaviours.

Youth Violence Reduction Partnership Model

The YVRP was first implemented in Philadelphia in 1999 (McClanahan, 2004). The program model is based on the principle that risk reduction through rehabilitation reduces offending behaviour and was designed to reduce homicide rates and facilitate prosocial change in violent young offenders. Although the YVRP is a secular initiative, it was originally based on the Boston Miracle program, which was a faith-based coalition that included intense supervision of high-risk youth by police and parole officers with support from outreach workers. Given the Boston program's success in reducing homicides, a number of youth-serving organizations and criminal justice agencies in Philadelphia partnered to create the YVRP. The program was initially implemented in two city districts and was later expanded to four additional districts (McClanahan et al., 2012).

The YVRP targets youth ages 14-24 years who are on active probation and deemed at high risk of being involved in a homicide (McClanahan et al., 2012). The average length of time that youth partners remain in the program is a little more than two years. The YVRP model has two key components. First, emotional and practical supports are provided by paraprofessionals known as street workers. These supports help to address some of the root causes of crime, such as a lack of education, lack of connection to meaningful employment, poor housing conditions, abuse or neglect, negative peers, lack of access to services, and a lack of prosocial adult guidance (McClanahan et al., 2012). Second, there is the goal reducing the opportunity to engage in criminal behaviour through increased supervision from probation officers and police. This model is unique in that the level of collaboration between the probation officers (POs), police officers, and street workers allows for an increase in support and supervision (McClanahan, 2004).

McClanahan et al. (2012) conducted a multi-year evaluation of the YVRP in five police districts and compared the crime rates before and after the program was implemented (i.e., from 1994 to 2010). They found a significant decline in homicides was only found for one of the districts. Also, the youth homicide rates declined relative to the city-wide rates in two of the districts (i.e., - 12% and -8%). Overall, the evaluators concluded that the program was associated with a reduction of youth homicides in the first two districts where the YVRP was implemented, but not in the districts in which it was later replicated. McClanahan et al. (2012) also found that YVRP youth had lower rates of violent crime arrests (15.5%) and convictions (13.6%) than the non-YVRP youth (25.5% and 24.1%, respectively).

Cincinnati Initiative to Reduce Violence (CIRV)

Cincinnati Initiative to Reduce Violence (CIRV) program is a multi-agency, collaborative community-based effort aimed at reducing violent crime while strengthening the relationship between communities and law enforcement. The program started in April 2007 and uses a focused-deterrence strategy modelled after Boston's Operation Ceasefire (Engel, Tillyer, & Corsaro, 2011). CIRV's objective is the sustainable reduction of homicides and gun-related violence perpetrated by group members. CIRV employs a focused deterrence strategy to directly communicate meaningful consequences for gang violence to at-risk group members. Focused deterrence strategies include assistance (i.e., social and job services) for those who want to transition out of the violent lifestyle.

As part of CIRV, Cincinnati Police Department (CPD) partners with community groups, social service providers, and law enforcement groups (at the local, state, and federal levels) to impact gun-related violence through strategic outreach. Using law enforcement intelligence, the CIRV targets chronic violent offenders affiliated with street groups who seek a more productive lifestyle and provides these individuals with streamlined social services, training, education, and employment opportunities.

The CIRV has four operational goals:

1. Increasing the perceived risks and costs of involvement in violence through meetings with offenders and community conversations;
2. Providing alternatives to violence by providing social services, direct outreach services, violence interruption, mediation, and spreading non-violence messages to the community;
3. Changing community norms regarding violence by forming relationships with individuals and organizations in affected communities to articulate prosocial norms and expectations, so that the community rejects the narratives that promote violence;
4. Sustaining reductions in violence over time ultimately through making the methods in CIRV process institutionalized in Cincinnati when responding to group/gang violence.

To achieve these goals, the CIRV has created an organizational structure consisting of a Governing Board, a Strategy/Implementation Team, and four Strategy Teams – law enforcement, services, community, and systems (Engel et al., 2011).

Engel et al. (2011) evaluated the program outcomes and found that, following the implementation of the program, there was a 37.7% of statistically significant decline in the number of homicide incidents in Cincinnati in 24 months, and a 41.4% reduction in 42 months. The institutionalization of the CIRV processes can ensure the sustainability of the change in the individuals and the community. To create a sustainable impact in Saskatchewan, STR8 UP should also continue to work with government agencies and communities and institutionalize its programs through continuing funding and support.

2.3.2. Summary of the Programs

The intervention programs reviewed in this study used a variety of strategies and approaches to reduce gang involvement and violent behaviours of at-risk youth or young adults. Despite the nuances in the target audiences, locations, methodologies, and interventions, there were a number of commonalities in these programs.

- All programs aimed to re-engage participants to their community and adopt prosocial behaviours while desisting from criminal behaviours and gang life. The common strategies used to ensure this re-engagement was to develop life, education, and employment skills through education, counselling, mentorship, and outreach activities.

- The programs were developed as alternatives to traditional suppressive approaches. In that sense, these programs prioritized community-based and proactive approaches instead of incarceration and pure criminal justice methods.

- An important component of these programs was community support. Programs that strived to re-engage their participants in the community and foster a prosocial lifestyle usually adopted a multi-agency approach. Therefore, the program management teams partnered with community groups, social service providers, community agencies, including, but not limited to, schools, police, judiciary, and health agencies. This multidisciplinary intervention model enabled the programs to provide services more efficiently and in a more timely manner, overcome potential barriers, and share information to serve youth more effectively.

- There was usually no restriction for the referral sources to the programs. Courts, police departments, schools, other community organizations, and community members can refer at-risk individuals to the programs, or the individuals can come forward to participate.

- Most intervention programs hired outreach workers to deliver the program components. The workers regularly met participants, provided mentorship, and referred them to relevant services and resources in the community to address their needs. In some programs like YRVP and OPK, outreach workers are from the same ethnic or cultural background with the participants which is an important component that helps programs to engage participants more easily and build trusting relationships with them.

- Risk assessment was an important component of some programs. Risk-based interventions were used in these programs to reduce the gang involvement of the participants and violence in the communities. High-risk individuals were targeted in these programs. Once the risk factors related to the gang involvement of the youth were identified, intervention methods were developed to address those risk factors and associated needs (e.g., substance use, education, employment, recreational activities).

- Programs like Roca, GRYD, and JIIP used a phased intervention model. The initial phases of these programs aimed to determine the eligibility of the referrals and build trust with them during the first few months. Subsequent phases focused on behavioural change through counselling, mentorship, and training. Programs also prioritized the sustainability of the change in the clients; thus, they kept in contact with clients for a certain period to ensure that they can sustain any changes made after completing the program.

- Programs that targeted vulnerable populations such as Indigenous communities used culturally sensitive and trauma-informed approaches to heal the participants from adverse life experiences and the impacts of intergenerational trauma (see section 2.3.4. for a detailed discussion on these approaches.

2.3.3. Best Practices and Culturally Sensitive Approaches

Some of the practices used in the programs that were reviewed can be used as exemplary models in future programs. In the evaluation of Regina Anti-Gang Services program, Trotten (2009) categorized the evidence-based approaches used in the program into five key policy areas:

1. Collaboration and problem-solving partnerships,
2. Concentrating investments on highest needs,
3. Developing and sustaining community capacity,
4. Adequate and sustained supports and resources, and
5. Public engagement.

Each of these areas have been addressed to a certain level in the gang intervention programs reviewed and some of the activities and approaches are considered best practices. In the ROCA program, for example, outreach workers aimed to build a trusting and meaningful relationship with the youth without bias, judgement or stigma towards them. This enabled the program to ensure that the youth felt secure and safe within the program, and thus, remained in the program for the targeted period. Another important practice in ROCA was continuous follow-up which ensured that the behavioural changes in participants can be sustainable during and after the program.

A similar approach to ROCA was adopted in the Youth Violence Reduction Partnership (YVRP) model which was first implemented in Philadelphia in 1999 (McClanahan, 2004). In the YVRP, street workers regularly contacted participants, built trusting relationships with them, and played an important positive role in the youth's lives. Street workers provided participants with emotional and practical supports to address some of the root causes of crime, such as a lack of education, lack of connection to meaningful employment, poor housing conditions, abuse or neglect, negative peers, lack of access to services, and a lack of prosocial adult guidance (McClanahan et al., 2012). Street workers often connected youth partners to supports such as job interviews or leisure activities. They also helped participants' parents find employment or housing to provide more stable family lives. These workers often live or have lived in the YVRP neighbourhoods and, therefore, understand the community culture and have more credibility with the youth (McClanahan 2004). The fact that they are coming from the same background with the youth helped the street workers build trusting relationships with youth partners and play an important positive role in the youth's lives.

Family support has played a vital role in gang intervention programs. According to Totten (2009), the gang involvement of Indigenous youth in Canada is mostly the result of "neglected, impoverished, abuse-filled childhoods" and he suggests that one of the most effective ways to prevent youth gang is reducing child maltreatment by focusing not only the child but also their families and communities (p.148). A family suffering from poverty, alcohol, and drug abuse creates a vulnerable environment for the children which can lead them down the gang involvement pathway. Interventions that involve components for families can address the family-related risk factors behind gang involvement. Education of parents on parenting skills and the devastating impacts of substance use, providing social assistance, and ensuring that the basic needs of families are met are some of the methods that gang intervention programs included.

The RAGS program and Prince Albert's Warrior Spirit Walking (WSW) program used the Multisystemic Therapy (MST) and the Wraparound Milwaulkee approaches (Totten & Dunn, 2011). MST is a model developed in South Carolina targeting youth with substance use and other problems within the criminal justice system (Henggeler et al., 2002). The unique approach of

MST is implementing an intervention model without removing the youth from their environment in contrast with traditional services which place the youth with others who have similar problems during their treatment. As the traditional services try to treat the youth out of their own environment, youth usually have difficulties in readjusting after the treatment and have the same problems when they return to their home (Burns et al., 2000). In the MST model, criminal behaviour is considered a result of multiple factors including the family and community. Traditional methods have ignored the fact that the family and community around the youth also contribute to the behavioural problems of the youth. Therefore, MST aims to equip both the youth and the family with the clinical skills to overcome the issues surrounding the antisocial behaviours of the youth. MST focuses on the family as the primary area of work and builds on the youth and family's strengths during the intervention. Program staff have contact with families for 60 hours on average over a four-month period to deliver the treatment needed by the youth and family (Henggeler et al., 2002).

The intervention methods used in the MST model aim to improve caregiver discipline practices, enhance family relations, decrease a youth's association with deviant peers, and increase positive collaboration between the family and school. In collaboration with parents, therapists work to improve the youth's social skills, school performance, and vocational functioning. Interventions also aim to overcome the potential barriers to change such as mental health problems of the caregiver or poor social skills of the youth (Burns et al., 2000). The MST model also incorporates a cultural component to establish effective collaboration with parents. To this end, representatives from the ethnic and/or cultural backgrounds of the family are included in the intervention process. In line with the MST framework, daily service was offered to RAGS clients in Regina through four core programs which included life skills programming for young men, circle keeper program for young women, intensive gang exit counselling, and outreach to schools and institutions. The WSW also provided outreach, literacy/academic upgrading, community school-based counselling, and counselling for substance abuse/young women's group/individual/employment (Goodwill & Giannone, 2017).

MST has been studied in seven randomized clinical trials and the outcomes indicated that the model decreased the risk for maltreatment of children (Brunk et al., 1987), improved family relationships, prevented criminal behaviour and further arrests (Henggeler, Melton, Smith, Schoenwald, & Hanley, 1993), reduced substance use (Henggeler et al., 1991), and decreased behavioural problems and delinquent peer group associations (Sutphen, Thyer, & Kurtz, 1995). In another study with similar results, the cost of MST was found almost equal to a traditional hospital treatment (Schoenwald et al., 2000).

Similar to the MST model, the Wraparound model is a community-based intervention model that involves both the child and family in the treatment process. The wraparound model began in Chicago in 1980s and aims to integrate the provision of services from the child welfare, mental health and juvenile justice systems (Burchard, Bruns, & Burchard, 2002). The model develops individualized case plans based on the unique strengths, values, norms and preferences of the youth, family and community. The theory of change characterizing the Wraparound model suggests that youth will function best when the larger service system surrounding them coordinates most efficiently with the microsystem of his/her immediate home and family environment. To achieve this, the family, school, and community should collaboratively build supportive relationships to improve the behavioural functioning of the individual (Burns et al., 2000). An important component of the model is the active involvement of the family at every level as they are the ones who understand the strengths and needs of the individual child. Evaluations of programs that involved the Wraparound model indicated that the youth had better

behavioural and family adjustment (Hyde, Burchard, & Woodworth, 1996), were less involved in criminal behaviours Clark et al. (1998), had better school and employment success (Hyde, Burchard, & Woodworth, 1996), and were better engaged with their communities (Burchard et al., 1993).

Addressing mental health needs of individuals is another best practice frequently used in gang intervention programs. In a qualitative study examining the gang exit and entry of Indigenous men living in Manitoba and Saskatchewan, Goodwill and Ishiyama (2016) suggested that counsellors and mental health professionals must be responsive to the psychological and practical needs in order to effectively assist gang exit among Indigenous boys and men. In a similar vein, based on the evaluation of the Juvenile Intervention and Prevention Program (JIIP) in Los Angeles, Koffman et al. (2009) suggested that effective tools that will promote mental health and reduce depression among youth with multiple risk factors are among the best practices. Accordingly, intervention programs can help reduce violence and trauma by emphasizing the social and mental health of the youth as well as their future. Goodwill and Ishiyama (2016) also discuss mental health treatment from a trauma-informed approach. They suggest that treatment should consider the impacts of traumatic events experienced by Indigenous communities such as systemic racism, inequalities, Residential Schools, Sixties Scoop, forced religion and medicine, and broken treaties. In that sense, mental health support can help the Indigenous people involved in gangs heal from the trauma, treat their addictions, and support troubled families.

Risk-based intervention models are also considered among best practices in gang prevention programs. The YVRP in Philadelphia (McClanahan et al., 2012) and the Re-entry and Intensive Aftercare Program (RIAP) implemented in Nevada, Colorado, New Jersey and Virginia targeting serious chronic juvenile offenders who were released from secure confinement (Wiebush, McNulty, & Le, 2000) are based on the principle that risk reduction through rehabilitation reduces antisocial behaviours. Risk-Needs assessment is key in these programs to identify high-risk individuals and address their needs such as mental health, education, employment, accommodation, and recreational activities. Information from the risk assessment is used to provide a comprehensive plan for youth during and following incarceration that tailors interventions to address the individual's problems in order to meet specific outcomes. Inspired by these two models, the Northeast Youth Violence Reduction Partnership (NYVRP) program which has been recently implemented in Northern Saskatchewan, used various risk assessment tools to identify the risk factors behind the gang involvement and violent behaviours of the participants and develop case plans for their specific needs (Jewell, Akca, Mulligan, & Wormith, 2020). The risk assessments employed in the NYVRP and many other programs are informed by the principles of risk, need, and responsivity (Andrews, Bonta, & Hoge, 1990). These principles guide practitioners in determining the amount of treatment an individual requires, the specific areas of treatment required, and considerations for ensuring that treatment is delivered effectively. Specifically, the risk principle states that treatment intensity should match an individual's risk level. That is, if an individual scores as high risk, they should receive high intensity treatment, whereas individuals scoring as low risk should receive low intensity treatment. The need principle posits that treatment should be focused on addressing criminogenic needs (such as the static and dynamic risk factors described above). Finally, the responsivity principle denotes that treatment should be delivered in a way that best matches an offender's ability and learning style.

In a systematic review, Higginson et al. (2015) examined the effectiveness of gang intervention programs implemented in low and middle-income countries and concluded that programs may be more likely to be successfully implemented when:

- a range of program components that appeal to youth are included,
- active engagement of youth is ensured, where their agency is embraced and leadership is offered,
- programs offer continuity of social ties outside of the gang, and
- program focuses on demobilization and reconciliation.

In addition to these points, based on the best practices reviewed in our study, gang intervention programs should also:

- ✓ Build trusting relationships through regular contacts with participants
- ✓ Incorporate family and community support
- ✓ Use relentless targeted outreach activities
- ✓ Treat participants (and their families) in their own environment without separating them
- ✓ Address mental health issues and other factors behind behavioural problems
- ✓ Use a risk-needs approach while building on strengths of participants
- ✓ Integrate cultural components into the program

Culturally Sensitive Approaches

Culturally sensitive approaches that help individuals heal from the impacts of colonization which lead them to antisocial lifestyles and criminal networks play a vital role in gang prevention programs implemented for Indigenous communities. To help participants heal from the detrimental effects of colonization, intervention programs should respond to historical, social, cultural and individual barriers (Fridell, MacKinnon, & Fernandez, 2011). The outcomes of colonization include a negative-self concept among Indigenous youth, loss of connection to their culture and, frequently, a sense of shame. Cultural teachings are considered one of the most effective ways to overcome these negative effects and promote a prosocial lifestyle among participants (Preston, Carr-Stewart & Northwest, 2009).

A growing body of literature indicates how engaging marginalized youth into their own culture can prevent them from being involved in antisocial networks. Accordingly, those who have a strong feeling of where they come from and take pride of their heritage are less likely to become a gang member (Fix & Sivak, 2009; Theriot & Parke, 2008). A clear understanding of Indigenous culture and experiences combined with the implementation of culturally-appropriate prevention and intervention programs is critical to addressing Indigenous youth gangs (Theriot & Parke, 2008). Programs should help participants to make cognitive sense of the traumatic experiences so that they can find ways to build positive associations with their identities. Re-acquaintance with their identities and culture enables them to have a prosocial life and desist from antisocial behaviours (Bracken et al., 2009; Preston et al., 2012). For instance, the NYVRP program in North Saskatchewan incorporated cultural activities, land-based learning, and opportunities to learn from Elders/Mentors into the program (Jewell et al., 2020). These elements played a significant role in the program and were deemed by staff and participants as being the most important components of the program. In the NYVRP communities, where the effects of colonization and intergenerational trauma are prevalent, land-based learning and learning from

Elders/Mentors offered important opportunities for youth to connect with their culture and to participate in traditional activities.

The Circle of Courage approach is another established and culturally sensitive model which has been used in various gang intervention programs (Totten et al., 2012). Based on the four parts of the medicine wheel, the approach draws from Indigenous philosophies of child rearing and education, as well as from resilience research (Brokenleg & Van Bockern, 2003). STR8 UP also uses the medicine wheel philosophy in both its Community Outreach and Community Intervention Models. For instance, the medicine wheel plays an important role during the 16 months of Internal Programming in the Transformation phase of the Community Intervention Model. Also, in the community presentations given by STR8 UP, the role of the Medicine Wheel in guiding the healing journey of STR8 UP members is discussed. In these presentations, the Medicine Wheel is promoted as a healthy model focusing on the four areas of physical, emotional, mental, and spiritual wellbeing. Building on these four areas, individuals are assisted in identifying the origins of their pro-criminal attitudes and addictions as well as abandoning negative beliefs and embracing a more pro-social, positive lifestyle (Orton et al., 2012).

The Circle of Courage model is used for Indigenous children and youth who are at-risk of delinquency in Canada, New Zealand, South Africa, Australia, and the United States. It is considered more of an approach, a strength-based philosophy, a positive intervention model or a method that promotes youth empowerment rather than a fixed rigid program. The Circle of Courage promotes the acquisition of four personal growth values, which are often illustrated in the form of a traditional medicine wheel and they include:

1. **Belonging**: The universal longing for human bonds is cultivated by relationships of trust so that the child can say, “I am loved”
2. **Mastery**: The inborn thirst for learning cultivated; by learning to cope with the world, the child can say, “I can succeed”.
3. **Independence**: Free will is cultivated by responsibility so that the child can say, “I have the power to make decisions”.
4. **Generosity**: Character is cultivated by concern for others so that the child can say, “I have a purpose for my life” (Brokenleg & Van Bockern, 2003, p.23).

Building on these four values of the Circle of Courage model, classes at school, daily presentations, counselling sessions, outreach services, and recreational activities are organized to heal the participants from negative behaviours and create resilience (Totten et al., 2012). A survey conducted by the U.S. National Crime Prevention Center (2011) with youth in residential care suggested that those who adopted the Circle of Courage approach succeeded in making the four fundamental values part of their personal growth journey. For example, after 12 weeks in placement, the most positive correlations were with generosity, and after 12 weeks, with mastery. After 24 weeks in placement, the young people had a greater tendency to use the vocabulary of the traditional wheel and the four quadrants. For the researchers, this was a sign that the young people had succeeded in appropriating the principles of the Circle of Courage philosophy in a more concrete way. The Circle of Courage approach was also the foundation of the WSW project. Based on this model, the Prince Albert WSW program included a number of culturally competent activities (see previous section for more detail; Totten, et al., 2012).

Taking a holistic approach also features prominently in programs designed to reduce Indigenous persons involvement in gangs. The OPK program in Winnipeg uses a holistic approach to help heal men from the effects of ongoing colonialism, and this transformation is called symbolic

healing or decolonization. In that sense, the program includes Indigenous cultural learning, counselling, and referral to educational opportunities (Deane et al., 2007). Counselling is offered in terms of wisdom reflected in Indigenous traditions. Prior to entry of the OPK program, an Indigenous Elder explains what the program is about and what is expected of the participant in terms of work training on the housing renewal project.

There are four critical components of the holistic healing provided by the OPK:

1. Dealing with the trauma due to adverse life experiences such as childhood abuse or abandonment by parents who themselves may have been traumatized by colonization, largely through the residential schools.
2. Dealing with negative racial stereotyping experienced since childhood.
3. Acquisition of 'lost' Indigenous teachings and developing a coherent and acceptable explanation for their socio-economic status.
4. Developing new social capital that goes beyond the limited bonding capital offered by involvement in a gang and providing bridging capital and linkage capital that enable participants to build new lives (Bracken et al., 2009).

Taken together, an in-depth understanding of cultural sensitivities and integration of cultural components to intervention programs are essential to re-engage individuals with their culture and prosocial networks and, thus, to help them heal from trauma and desist from criminal behaviours and gang lifestyles. There is a lack of research that empirically examines the impact of culturally sensitive approaches. As more programs integrate such approaches in their intervention models, empirical studies should investigate the extent to which those methods reduce gang activities and antisocial behaviours among vulnerable communities.

2.3.4. Outcomes and Measures

In the evaluation of the programs, a variety of measures were used depending on the main objectives, the theories of change, and target groups of the program (see Table 1). The most common measures are risk levels, recidivism/desistance, behavioural change, substance use, school success, and employment. Other measures used in the programs that are worthy to highlight are sustainability of change; beliefs and attitudes towards violence, gangs, and conflict; perception of community safety; healing from trauma; and reconnection with own identity and culture.

There is a consensus in the literature that gang membership is a result of “a culmination of interrelated structural and process factors” (Higginson et al., 2015, p. 14), and these factors are categorized under five domains: individual, peer, family, school and community (Decker, Melde, & Pyrooz, 2013). Based on the cumulative and interactive impact of the risk factors under these five domains on gang involvement, scholars suggest that intervention programs that address risk factors across multiple domains are likely to be the most successful (Higginson et al., 2015; O’Brien et al., 2013). Thus, measurements of success in gang intervention programs will be more valid and comprehensive if they include more variables from these domains. In that sense, programs that only focus on desistance from crime and exiting gangs might come up with a wrong conclusion in terms of the effectiveness of their model when the numbers show that participants did not desist from crime in a short period after the intervention. Based on a systematic review, Roman, Decker, and Pyroz (2017) concluded that intervention programs are more likely to be successful if they: (1) address disillusionment (with gang involvement) and simultaneously leverage pulls (promote prosocial behaviours and networks); (2) have a long

duration and high intensity of services; and (3) work with both individuals and the group. Therefore, in addition to traditional measures of success in intervention programs (e.g., recidivism, risk, desistance), it is important to include variables that indirectly lead to desistance from crime and gang lifestyle such as development of prosocial behaviours, employment, family relationships, and prosocial norms and networks (Roman et al., 2017), as well as cultural factors such as healing from trauma and reconnection with own identity and culture.

Besides the success measures and outcomes, a discussion on the challenges and gaps in the programs reviewed and how they can be overcome might help STR8 UP in their intervention models. In the RAGS program, for instance, participants feared that gang members were trying to infiltrate the program to spy on participants. This shows that how risky gang intervention programs are to implement while the violence is ongoing in a community. Gang leaders and members do not want their members to leave the gang and may resort to threats and violence against staff and participants of the intervention program. To address these risks, Totten and Dunn (2012) suggest that intervention programs should have a secure office space, conduct intake assessments off-site, assess participants' level of motivation, conduct regular safety audits and consultations, and review all "near misses" where acts of violence were narrowly avoided. Another challenge that the RAGS program had was the high turnover in staffing and the conflicts of interest due to the fact that some staff members were former gang members. To overcome the latter challenge, staff who have past experience with gangs and who may also share the same social circles as the participants should be trained in maintaining appropriate boundaries with the participants (Totten & Dunn, 2011). The YAAGV program in Prince Albert initially had some difficulties in engaging parents of gang-involved or high-risk youth. This challenge was partially addressed through home visits by staff at the start of the school year to meet with the parents or guardians of participants. The purpose of these visits was to engage family in school life and open the door to regular communication. The staff also invited parents to family activities, such as holiday feasts, which was another successful method to engage parents or guardians (Totten & Dunn, 2012).

Another key point to mention about the program evaluations that we reviewed is the period between the beginning of intervention and evaluation of outcomes or impacts. The time of assessments in these programs ranged between 6 months and 5 years depending on the length of the program, the variables measured in the analysis, availability of data and resources to analyze, and the goal of assessment. Some program evaluations measured the success at multiple time periods (e.g. 6 months, 18 months, 24 months). Risk scores are usually measured at the beginning and end of the program for each participant. Some programs measured the outcome variables such as incarceration only during the program implementation period (e.g. OPK; Deane et al., 2007), while others evaluated the impact of program through longitudinal studies on incarceration and employment rates of its participants over 5 years (e.g. Roca; Brown & Teigen, 2014). Although there is not a unique approach for the timeline of success measurement in the evaluation of gang intervention programs, according to the Blueprints for Violence Prevention Initiative[4], one of the most rigorous criteria for being an effective violence prevention program is having sustained effects at least 1 year beyond the intervention (Milhalic et al., 2004).

The outcomes of the studies reviewed here (Table 1) and previous meta-analytic studies (Higginson et al., 2015; Kittle, 2017) have shown that it is possible to reduce gang violence and

[4] The Blueprints for Violence Prevention initiative was developed by the Center for the Study and Prevention of Violence at the University of Colorado–Boulder and is supported by the Office of Juvenile Justice and Delinquency Prevention. The initiative is considered as a leader in identifying effective violence prevention and drug prevention programs that have been evaluated in rigorous, controlled trials.

involvement through the development and implementation evidence-based intervention programs. However, the studies also show that the effects of the intervention are not permanent and may decrease throughout the years, which indicates the importance of efforts to ensure the sustainability of change in the participants (Kittle, 2017). Permanent and enhanced funding solutions and a concrete plan to institutionalize programs are key factors to achieve sustainable change and ensure the minimization of violence in the communities. Thus, the programs that are proven to be successful at reducing violence, gang involvement, and anti-social behaviours among participants should be supported through governmental and non-governmental funding opportunities.

Table 1. Success Measures Used in Gang Intervention Programs and Outcomes			
Program	**Location**	**Success Measures**	**Outcomes**
Roca	Massachusetts, U.S.	• Behavioural change, • Job skills and competency • Sustainability of change • Arrest and recidivism rates	Evaluation 1 • 89% of 115 participants had no new arrests and 69% were still employed (in last two years of the program) • Incarceration rates of program participants reduced 65% over 5 years and their employment rates increased 100% Evaluation 2 • 184 out of 904 participants enrolled in transitional employment • 97% of them had no new arrests after attending the program • 274 were placed in a job • 80% stayed with ROCA throughout the program • 79% held jobs for 6 months or more
CURE Violence	Chicago New York Philadelphia International	• Gun injuries (health) • Shooting victimization (police) • Pro-violence social norms	• 45% decrease in violent crime (Trinidad & Tobago) • 63% decrease in shooting events (New York City) • 30% decrease in shooting events (Philadelphia) • 31% decrease in homicide, 7% decrease in total violent crime, and 19% decrease in shootings in the program intervention year compared to the preceding year (Chicago) • Reductions in social norms that support violence
GYRD	Los Angeles	• Gang risk factors • Gang involvement • Gang-related criminal and violent behaviour • Arrests • Performance in school • Quality of family relationships • Gang crime trends • Violent crime, other gang-related crime trends • Perception of community safety	• Reduction in the risk scores of the youth ranging from 13 to 42% (pre-post assessment scores in a three-year program) • Younger and less risky clients were more likely to graduate • Clients closed unsuccessfully had higher reported levels of substance use • Improvement in client risk factors • Fewer violent behaviours and gang-related behaviours

		• Other gang-related activity • Communication, partnership among GRYD staff, partners, police	
YAAGV (WSWP)	Prince Albert, SK	• Violent Attitudes • Risk level • Acceptance of gangs • Depression • Attachment to Teacher • Attachment to Parents • Employment • Substance abuse • Commitment to School	• All program completers (n = 74) had exited gangs or had resisted involvement with gangs at case closure • No changes in aggression and retaliation • 65% increase in conflict resolution skills • Acceptance of gangs declined by 38% (in 24 months) and 42% (in 30 months) • No changes in parent attachment • Significant increase in bonding to adult role models • Significant decrease in depression symptoms • No change in involvement with criminal and antisocial peers • 50% or more of the youth found employment • Significant decrease in substance abuse for a small number of participants
G.R.E.A.T.	U.S.	• Gang involvement, gang membership, and gang initiation • Risk factors (i.e., family, school, peer, individual, and early delinquency) • Drug use	• Moro-social attitudes and behaviours • More positive attitudes about police • Less positive attitudes about gangs • More frequent use of refusal skills • Greater resistance to peer pressure • Lower rates of gang membership • Lower levels of risk-seeking and victimization • One year after the program started, gang involvement among the students who received the program was 39% lower than those who did not. Four years after the program started, this rate was 24%

BUILD	U.S.	• Gang activity • Family problems • Juvenile delinquency • Mental health symptoms • Association with deviant peers, • School failure • Substance use	• Significant reduction in mental health symptoms • No reduction in gang-related activities • Reduction in school failure • 64% of clients who exited the program between 2010 and 2017 and received 11 months of programming on average (*n* = 328) had no post-exit conviction record
RAGS	Regina, SK	• Gang membership • Substance use • Risk levels • Beliefs/attitudes about conflict • Violence, guns and aggression • Mental health	• Gang affiliation of participants declined about 46% (at 6 months), 63% (at 12 months), and 71% (at 18 months) • Involvement in violent crime declined by 50% (at 6 months), 75% (at 12 months), and 63% (at 18 months) • Involvement in non-violent crime declined by 56% (at 6 months), 63% (at 12 months), and 63% (at 18 months) • Significant decline in general approval of aggression and retaliation • Significant decline in participants' risk index scores • Increase in dislike of guns • No significant changes in attachment to labour force • Substance use declined by between 61% and 68% • No effect in improving symptoms of depression
CIRV	Cincinnati, U.S.	• Gang-related homicide incidents • Violent firearm incidents	• Significant reduction in group-member homicides • Decline in violent firearms incidents • A 41.4% reduction in gang homicides was noted at 42-months post-implementation
OPK	Manitoba	• Desistance from criminal behaviour • Healing from trauma • Re-connecting with Indigenous identity and culture	• During 4.5 years of program operation, there were no arrests among participants for gang-related or gang-motivated offences

3. STR8 UP Program Description

3.1. STR8 UP Program Models

STR8 UP currently provides programs and services under two separate, yet similar, models: (1) Community Intervention Model (CIM); and (2) STR8 UP Community Outreach Model (COM).

3.1.1. Community Intervention Model (CIM)

In the CIM project, STR8 UP has partnered with the Saskatchewan Ministry of Corrections and Policing to deliver programs for individuals who are affiliated with gangs, engaged in high-risk lifestyles and are likely to re-offend without intervention. This new program model is funded through the provincial government's Gang Violence Reduction Strategy and targets communities in central and northern Saskatchewan, including Saskatoon, Prince Albert, North Battleford, and the La Ronge area. Each client referred to the CIM project is assigned to a dedicated outreach worker who provides intensive case management and service planning support. The outreach worker coordinates government and community services to meet the needs of the client and help establish a service plan to achieve their goals.

Target Population

The CIM targets individuals between the ages of 15 to 30 years old who are affiliated with gangs, engaged in high-risk lifestyles and are likely to re-offend without intervention. Individuals who are scheduled for release from custody in the next six months to a year, or who have recently been released and need access to services in Prince Albert, Saskatoon or surrounding areas, can be referred to the program.

Referrals can be made by community members or agencies, STR8 UP members, corrections, police, and schools. Individuals referred to the CIM are those who want to exit gang life, engage in education and/or employment opportunities and, ultimately, reduce negative contacts with the criminal justice system. Among the individuals referred to the program, a maximum of 57 clients will be selected to participate in the CIM project for the full duration of the program.

Program Activities

The activities that STR8 UP implements for the clients within the CIM consists of three phases:

a) Relentless Outreach
b) Transformation
c) Support & Sustainment

a. Relentless Outreach

Once a client is referred to STR8 UP's CIM, a dedicated outreach worker provides individualized support to this person for 4-6 months. The outreach worker coordinates government and community services to meet the client's needs and helps them achieve their work and education goals. This initial step serves as a screening process through which STR8 UP has the opportunity to get to know the client and decide if they are ready for the next steps as one of 57 individuals selected for more intensive programming. The main criteria to be selected for

the next step are the continued willingness of the client to leave the gang lifestyle and to work towards the objectives they identified with their outreach worker.

b. Transformation

The clients who are selected for intensive programming receive 16 months of Internal Programming designed to help them succeed in achieving their goals for education and employment. STR8 UP provides continual outreach services and individualized support to clients during this phase. Clients receive Indigenous Cultural Teachings from Elders and cultural workers. They also receive other services, programs, and resources that they need to pursue their individual plan from community agencies throughout central and northern Saskatchewan.

c. Support & Sustainment

STR8 UP continues to support the clients after they complete the initial phases of their healing. All clients who successfully complete the initial phases become a member of STR8 UP and a part of a group of individuals who commit to supporting one another and helping one another succeed in reaching their goals. This phase lasts 1 to 2 years.

3.1.2. Community Outreach Model

The Community Outreach Model refers to the set of traditional services provided by STR8 UP since its foundation to intervene with and assist gang members who are considering, or are in the process of, leaving their gang.

STR8 UP offers a range of programs to its clients including mentorship programs, school presentations, and workshops in the community. It also offers a number of member services, including advocacy work and outreach, connecting members with community resources, and tattoo removal. In addition, STR8 UP Outreach Workers work with STR8 UP members to reduce the barriers that they struggle to overcome, such as finding employment opportunities, accessing treatment or educational programs, and helping them register for welfare.

STR8 UP's services are funded through grants and donations received from the community and various stakeholders. To date, STR8 UP has received financial and resource support from the following community leaders: Affinity Credit Union, Amiskusees Semeganis Worme Family Foundation, CFS Saskatoon, Community Initiatives Fund, Law Foundation of Saskatchewan, Quint, Rotary Club of Saskatoon, Saskatoon North, and YMCA of Saskatoon.

Target Population

In the community outreach model, STR8 UP targets individuals who wants to exit gangs and commit to the process suggested by STR8 UP. STR8 UP's main office is located in Saskatoon; however, it does serve communities and individuals who want to exit gangs across the province. The main focus of this model is individuals residing in Saskatoon, but anyone from Saskatchewan or other provinces can be referred to the program. As the basic principles for joining STR8 UP as a member, the program requires individuals to drop their colours, deal with their addictions, be honest and humble, give four years for change, be a loving parent, be a

faithful partner, and be a responsible citizen. Members also have to write an autobiography before they can join the program.

Program Activities

In the traditional stream of STR8 UP, the management team and outreach workers provide services to clients in numerous ways including assistance with training, probation support, housing, addictions, health, educational appointments, court attendances and case planning. Within the outreach case planning, STR8 UP helps clients by providing advocacy support during court proceedings or their affairs with corrections, government agencies and community services. In case planning, STR8 UP provides reintegration support for clients during their transition from correctional facilities (remand or sentenced) into the community. For clients who have special needs, such as addictions or physical and mental health needs, STR8 UP facilitates their referrals to relevant community agencies and services.

To prepare clients for their new prosocial life, STR8 UP organizes training programs on professional development, work readiness and placement, literacy and skill building. In addition, STR8 UP aims to improve the personal lives of clients through mentoring, coaching, personal counselling, and training programs on healthy relationships, strengthening and reuniting families, financial arrangement assistance, healthy lifestyles, and personal, leadership and parenting skills. Through its outreach model, STR8 UP also organizes recreational activities, as well as cultural and spiritual programs, including sharing circles, cultural camps, and events to enhance family connections of the clients. The free tattoo removal service of STR8 UP enables members to remove tattoos which include former gang symbols and names that could be detrimental to their personal safety or inappropriate based on their career goals and aspirations. While STR8 UP organizes activities in-house when funding allows as listed above, it also refers Members to programs offered in the community when available.

STR8 UP works in four key areas to address the needs of its members and to build community capacity and understanding.: 1) outreach; 2) training; 3) personal development; and 4) community education.

1) **Outreach**: Community and correctional outreach activities include case planning and advocacy. Members are also assisted in getting to probation appointments and attending court hearings.
2) **Training**: STR8 UP provides training programs on professional development, work readiness programming and literacy skill building.
3) **Personal Development**: STR8 UP supports its members to develop their personal skills and healthy relationships, parenting skills and work to strengthen and reunite families. Members receive the training and education needed to live a healthy life and develop leadership skills.
4) **Community Education**: STR8 UP also educates the community through presentations, fundraising, seminars, workshops, and books. Community education activities also includes building community awareness and understanding.

The program activities for the participants in the Community Outreach Model take place in four phases:

a) Decision-making
b) Transition

c) Transformation
d) Stabilization

These phases were developed by STR8 UP members, taking into consideration their lived experiences and the challenges they continue to face in building healthy lives for themselves and their families. Most STR8 UP members fall into the transition phase of this model.

a. Decision-Making Phase

The initial phase is the period where the member starts thinking about changing their lifestyles and decides to approach STR8 UP to leave the gang. The length of this process depends on the specific conditions of the member and can last from one day to many years. The process usually starts when the individual is incarcerated. STR8 UP believes that the time spent in incarceration allows the individual to realize the negativity of gang membership and the control that the gang has over their lives. The decision-making process might be triggered by recent traumatic events such as the violent death of a friend, the feeling of being sick and tired of living a dysfunctional abusive and criminal lifestyle, or positive events such as the birth of a child which makes the member feel more responsible towards others. During the decision-making process, the individual might struggle with some emotional challenges such as feelings of fear, loneliness, anger, insecurity and regrets, as well as a desire of being free and changing their lifestyle.

b. Transition Phase

Once the decision for a change in lifestyle is made, the individual goes through a challenging process where they deal with conflicts and the negative consequences of leaving their gang. They might feel isolated and lonely as they are away from old friends and activities. In addition, they might struggle with fear, anxiety, and stress while dealing with legal requirements (attending court hearings and following probation or parole orders) as well as suffering from addiction and sobriety issues. As they discover that these challenges are impossible to deal with alone, they are supported by STR8 UP by arranging counselling support, treatment, and involving them in cultural activities.

c. Transformation Phase

In the transformation phase, STR8 UP members start to take on new responsibilities and develop new relationships to replace their negative history. However, they might continue to suffer from their old habits, such as addictions or antisocial behaviours and partners. To overcome these challenges, STR8 UP helps these individuals obtain their government-issued IDs, follow their legal requirements, re-unite with their family and develop their family bonds. STR8 UP also arranges counselling supports, parenting classes, cultural activities such as First Nations ceremonies and church attendance, education, and employment opportunities. Members start to attend STR8 UP programs, activities and various events in this phase. Despite emotional and procedural challenges, members start to realize they are no longer victims as they become more comfortable with their new prosocial lifestyle.

d. Stabilisation Phase

In the final phase of the program, STR8 UP members start having a stabilized lifestyle with their new skills and lifestyles with the support of STR8 UP. Ideally, in this phase, they get more involved in school or employment, they develop relationships with prosocial friends and

reconnect with healthy family members. They might still continue to have difficulties with their old habits and network, however, as they discover their strengths, they become more confident and successful at overcoming these challenges. They become committed to living a life free from addictions and antisocial behaviours, thoughts and beliefs. Moreover, members become able to manage their daily life activities such as paying their bills, driving, having a stable residence, attending school regularly, and pursuing their employment. Their mental and physical health improves and they become more centered in dealing with their emotional struggles. As they become more stabilized in community life, they involve more in their larger community and organisations while they continue to be connected with STR8 UP with enhanced roles and responsibilities as a member.

A more detailed description and evaluation of the traditional outreach model of STR8 UP can be found in the "Process Evaluation of the Saskatoon STR8 UP Program: Evaluation Report" published by the Centrefor Forensic Behavioural Science and Justice Studies in 2012.

BUILD UP

STR8 UP supports individuals to leave a gang lifestyle; however, many of their members struggle to find a job due to a previous criminal record, even after years of crime-free living and meaningful community participation. In 2018, STR8 UP partnered with Quint Development Corp to launch BUILD UP, a contracting business with a social purpose of employing, training and mentoring individuals who face multiple barriers to employment including criminal records. BUILD UP offers STR8 UP Members and others with the opportunity to develop work skills.

Quint Development Corporation is a unique not-for-profit organization which has focused on creating economic opportunities for Saskatoon residents with decades of experience providing employment services. BUILD UP Saskatoon offers STR8 UP members a steady employment, mentorship, and other social supports to their employees to aid them towards meaningful, long-term employment in the construction industry. It also offers the community an opportunity to participate in a business that prioritizes community benefits and social impact over private profit. All projects of BUILD UP are overseen by an experienced contractor and a full-time journeyman site supervisor to ensure that they meet or exceed industry expectations for safety and quality.

Community Education

STR8 UP aims to raise the awareness and understanding of all community members regarding the issues surrounding gang involvement as well as its causes, outcomes, and prevention methods. In this vein, STR8 UP organizes presentations, seminars, workshops, and projects. STR8 UP is frequently invited to speak in communities across the province. In these presentations, STR8 UP members also attend to speak from their personal experience on desistance from gangs. The involvement of Members in these presentations gives them an opportunity to develop their communication skills while actively contributing to community education efforts. By sharing their personal stories of struggle and success, they build their confidence and promote compassion and understanding in the community. In order to invite audiences to these presentations and other community education efforts, STR8 UP has created education materials such as posters and brochures, which are published on their website where people who are interested can download.

STR8 UP and individual members are frequently approached by the media to lend expertise to the discussion of worrying trends associated with gangs. For instance, in September 2019, the Saskatoon Star Phoenix and Regina Leader-Post daily newspapers interviewed STR8 UP's Co-founder Father André Poilièvre and a current STR8 UP Member in a three-part series entitled *The Struggle Inside*, which investigated addictions and drug problems in provincial correctional facilities.

In 2018, STR8 UP launched a social media project entitled *STR8 UP & Gangs: Troubled Past or Healthy Future*. In this project, through the social media platforms such as Instagram, Twitter, and YouTube, STR8 UP offers a space for its Members to share their healing experiences and promote a better understanding of the challenges they have faced and how they have overcome those challenges. In this project, STR8 UP also identified some key themes and quotes based on the conversations with its members inside and outside of correctional facilities in Saskatchewan as well as the autobiographies written by STR8 UP members as part of their healing journey when they join the organization. These themes and quotes are posted via the social media accounts accompanied by some relevant images selected by STR8 UP members and supporters. The online discussions and comments on those posts are planned to be used as educational materials.

3.2. Staff and Management

STR8 UP was founded in 2007 by Father Andre, a former Lead Chaplain at the Saskatoon Correctional Centre, and Stan Tu'Inkuafe, a former youth worker with the John Howard Society (JHS), under the umbrella of the JHS. In 2013, STR8 UP left the JHS and continued its activities as a non-profit and registered Canadian charity.

STR8 UP programs are managed by a President, an Executive Director, and the STR8 UP Board. For the CIM project, there are 13 outreach worker positions associated with two offices in Saskatoon and Prince Albert. In the community outreach model, there are 1-2 staff working as outreach workers in Saskatoon. As new funding opportunities occur, STR8 UP continues to hire outreach workers in the community outreach model to pursue its goals within the community. Also, STR8 UP programs are supported by volunteers.

STR8 UP Board

STR8 UP programs are governed and overseen by the STR8 UP Board which consists of twelve active members including the 2 Co-founders, one vice-president, one treasurer, one secretary, five directors, and three member/directors. The Constitution of STR8 UP requires that at least two board members be STR8 UP Members. The Board meets every month and the Board executives meet as needed.

STR8 UP Members

STR8 UP members come from a wide variety of backgrounds and experiences. Most, but not all are ex-gang members, and many have served time in youth, provincial, or federal correctional centres. Many are also proud parents, students and employees. Some serve as youth representatives for National Indigenous organizations, some serve on boards for local community organizations, regularly volunteer their time and are invested in community healing. Currently STR8 UP has members employed as youth care workers, cultural leaders, tattoo artists, and in skilled trades and services.

3.3. Theory of Change

The theory of change for STR8 UP is to develop a model for individuals looking to exit the street gang lifestyle and assist individuals in liberating themselves from gangs and criminal street lifestyles. It is assumed that, by providing individuals and their families with the skills and resources they need to become responsible citizens through their community outreach, the initiative will build healthy families and individuals who pursue positive and gang-free lifestyles. STR8 UP believes that offering an alternative lifestyle to the negative and vicious stereotypes is necessary for the individuals to heal from a criminal lifestyle.

The theory of change underlying STR8 UP programs is based on the Medicine Wheel Philosophy of Indigenous people which suggests that there is continuous interaction between the physical, emotional, mental, and spiritual realities of one's life. In addition to the interconnectivity between them, all of these aspects are connected with the natural world. The Medicine Wheel Philosophy of harm and healing adopted by STR8 UP suggests that the problems encountered by gang-involved individuals, such as violence, substance abuse, and poverty, do not stem from any perceived lack of morals but are the social manifestation of health deprivations. STR8 UP's theory of change posits that the healing of individuals and groups goes hand-in-hand and, although healing comes from within the individual, community support is necessary to reach the ultimate goal which is the prevention of gang involvement among community members. STR8 UP is aware that healing is a long, difficult, and painful process which is full of setbacks, failures and slips. Therefore, STR8 UP believes, it is necessary to possess a vision of changes and possibilities and a positive spiritual life to overcome these challenges.

The Medicine Wheel offers a perspective of both culture and spiritual development, identity and transformation. Being informed by the Medicine Wheels Philosophy, STR8 UP's theory of change has been built upon two key components:

- ✓ Building strong and healthy relationships with the members
- ✓ Incorporating culture and spirituality into program activities

Strong and Healthy Relationships

STR8 UP's experiences have shown that developing and maintaining healthy and strong relationships with gang members is one of the most useful approaches that can internally motivate them to leave their dysfunctional and unhealthy lifestyle and ultimately become a healthy and responsible citizen. When STR8 UP Members were asked why they continued to be involved in STR8 UP and stay as a Member after receiving the program, their responses showed the impact of the relationships that they developed within STR8 UP:

- "I was attracted to the values that STR8 UP offered. Values such as honesty, humility and respect."
- "They never gave up on me."
- "I felt understood."
- "I learned from other STR8 UP members."
- "It taught me a whole new way of thinking."
- "It was the only program that I was aware of that specifically worked with gang members."

- "It was member driven – meaning that the organization worked from the bottom up, not top down."

It is not what STR8 UP is able to do for members through case planning and other supports that is considered the core strengths of the program—it is the meaningful relationships that are established while connected with the program that keep members invested in STR8 UP and in their own transformations.

Culture and Spirituality

Culture and spirituality have been considered the most unifying process of transformation for STR8 UP Members, especially in the unique ways that these concepts are defined and utilized by STR8 UP. The cultural and spiritual dynamics of STR8 UP members are discovered primarily through the teachings and model of the Indigenous Medicine Wheel philosophy where the teachings become part of one's life as one embraces and engages them in their recovering and healing journey. This philosophy models STR8 UP members' journey in searching for balance, harmony, wholeness and connectedness within one's life in relationship to self, the human family, natural environment, and finally with one's Sacred Mystery. One must engage in these four dynamics in order to transform a life of violence, destructiveness and death to one of caring, responsibility and generosity. Moreover, the physical, mental, emotional and spiritual sections of the Medicine Wheel are continually interconnected. Importantly, the Medicine Wheel offers understanding and guidance in the four phases of life (i.e. childhood, adolescence, adulthood and elderly).

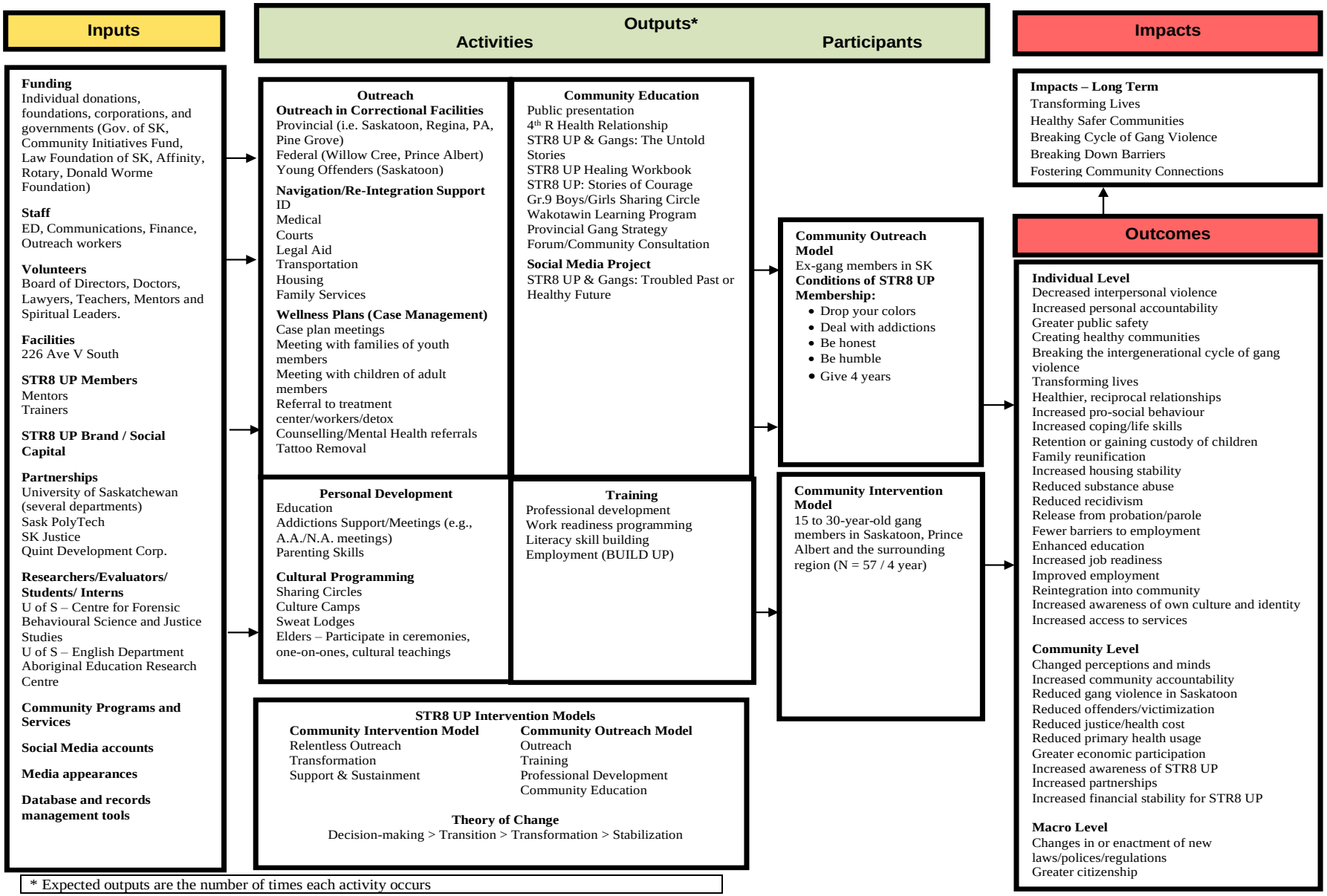
STR8 UP realizes that not all people are religious, but all are spiritual. Spirituality, a concept which is traditionally linked to religion, has been used to refer to the deepest values and meanings by which people behave, believe, define and live their lives. Spiritual values can be positive (e.g., being forgiving, respectful, honest, or humble) or negative (e.g. being vindictive, disrespectful, dishonest, or arrogant). Positive values are life giving, while negative values reap distress and self-destruction. Within STR8 UP, these positive or negative values determine the identities of the Members and the groups with which they associate and identify.

The healing effect of culture in Indigenous peoples is relevant and meaningful in STR8 UP's approach to recovery for all members regardless of their Indigenous ancestry. The mosaic of meaningful, authentic, and healthy relationships within STR8 UP's culture builds, maintains, and cultivates the members commitment to recovery. Culture is primarily the goals, laws, traditions, customs, symbols, rituals, ceremonies, all art forms, habits and social constructs of a group of people. In that sense, culture is the full expression of a particular way of life of people, communities, or organizations that unites people. In STR8 UP, culture is a shared experience expressed through the numerous emotions involved in the recovery of addictions and negative lifestyles. In the STR8 UP culture, recovery is considered an emotional journey through which all broken, shattered, hurtful, and often shameful relationships are repaired. In other words, emotions and feelings are inseparable from recovery for STR8 UP members. This recovery is a slow but arduous process which allows the members to develop new emotions and cultural reality while becoming a new person in a new social context. Thus, the culture STR8 UP cultivates is far different than the "office culture" characterizing most service providers.

3.3.1. Program Logic Model

Program logic models (PLMs) are used to outline the intended inputs, activities, outputs, intermediate, and long-term outcomes of an initiative and enhances the stakeholders understanding of how a program will unfold, based upon the program theory. STR8 UP's program logic model was originally developed in 2014. Based on STR8 UP's most recent program documents and annual reports, an updated version of the PLM is presented on the following page.

Figure 1. STR8 UP Program Logic Model



* Expected outputs are the number of times each activity occurs

4. Cost Analysis Design and Methods

A cost analysis of STR8 UP was completed to determine STR8 UP's paid and unpaid costs, its cost per participant, and how STR8 UP's costs compare to the overall costs of crime. This chapter describes the sample selection, procedure, data sources, measures and analytic approach used in the current study. The limitations of the study are described at the end of the chapter.

4.1. Study Purpose and Questions

4.1.1. Study Purpose

This cost analysis aimed to document the paid and unpaid costs of service delivery in the STR8 UP programs (2015-2019) to enable the replication of the programs elsewhere and provide context for the project results in terms of what it costs to produce the results achieved. Also, the findings provide documentation that will allow for further cost-effectiveness or cost-benefit analysis of the program.

4.1.2. Evaluation Questions

- What are the yearly Paid Costs of STR8 UP between the years 2015 and 2019?
- What are the yearly Unpaid/Volunteer of STR8 UP Costs between the years 2015 and 2019?
- What is the average cost per participant (Paid and Unpaid)?
- How do the trends or commonalities compare to others reported in the literature?
- Was the program cost-effective based on the literature on societal cost per crime and Criminal Justice System cost?

4.2. Data Sources

- STR8 UP's financial statements from 2014/2015 to 2018/2019,
- Unpaid costs estimates from STR8 UP members,
- Gabor's (2015) cost of crime estimates.

4.3. Measures

4.3.1. STR8 UP's Costs

Paid Costs

STR8 UP's fiscal year is April 1 to March 31. Yearly statements are repeated in the successive year; if there were discrepancies, it was assumed that the more recent figures corrected errors from the earlier period. To convert fiscal year figures to calendar year, expenditures were assumed to be equally distributed for each month in the fiscal year. For 2015, January-March data were obtained from the 2014/15 fiscal year and April-December 2015 data were obtained from the 2015/16 fiscal year. This logic was used for the successive four year period, with the exception of 2019, where one month average for 2018/19 was used for the entire year.

STR8 UP's Unpaid/Volunteer Costs.

Unpaid costs included out-of-pocket expenses (e.g., meals, clothing, travel, treatment/detox, funeral expenses, government identification fees, and miscellaneous expenditures to aid program participants), mileage computed at a rate of $0.47/KM, telephone and internet used while conducting STR8 UP work, and volunteer time. An hourly rate of $27, obtained from the Conference Board of Canada (2018) estimation of the core non-profit sector value of volunteer hour, was used to estimate unpaid/volunteer work for staff members. Unpaid costs were estimated for the five year period, 2015-2018.

4.3.2. Cost of Crime

Gabor's (2015) cost estimates itemized cost of crime by offense type into the following four categories of costs:

1. ***Tangible Victim Costs*** (which included property losses, lost wages, and medical costs due to injuries);
2. ***Criminal Justice System Costs*** (averages provincial and federal law enforcement, court, corrections, programs and services);
3. ***Criminal Career Costs*** or the opportunity cost lost when a justice-involved person forgoes legitimate employment in lieu of a criminal career; and
4. ***Intangible Victim Costs*** (loss in quality of life, pain and suffering of victims).

All four costs types were further tallied into the societal cost of crime. The cost analysis used data from Gabor's (2015) a review of international peer-reviewed, government publications, non-governmental agency publications and book chapters with original cost of crime data, published between ranging from 1988 to 2014. Gabor (2015) then adjusted the data for inflation and converted to Canadian 2014 dollars. The average cost of one offense was computed using Gabor's (2015) "mean cost outliers removed" estimates, averaged for the following crime types: sexual assault, assault, aggravated assault, robbery, motor vehicle theft, arson, burglary, theft and fraud. Homicide was excluded due to suspected over-inflation of homicide costs and the infrequency of homicide occurrence compared to other crimes in a given year. Gabor's (2015) figures were next adjusted for inflation for the years 2015 through 2019. These results are presented in Chapter 5.

4.4. Analytic Approach

4.4.1. Cost Analysis

STR8 UP's cost per participant per year was compared to Gabor's (2015) average cost of one crime (excluding homicide and outliers) to determine the cost savings or deficit of four scenarios:

1. STR8 UP's total cost per participant per year vs. societal cost (assuming each participant is deterred one re-conviction per year).
2. STR8 UP's total cost per year vs. societal cost (assuming a 20% re-conviction recidivism rate per year).
3. STR8 UP's total cost per participant per year vs. the CJS cost (assuming each participant is deterred one re-conviction per year).
4. STR8 UP's paid cost per participant per year vs. the CJS cost (assuming each participant is deterred one re-conviction per year).

4.5. Limitations

The following limitations should be kept in mind when reviewing the study's findings:

4.5.1. Cost Analyses Limitation

No recent cost of crime estimates

The cost analysis used data from Gabor's (2015) a review of the cost of crime. No more recent, comprehensive study was available. Since more than half of the studies were published in academic journals and a third were conducted by government agencies the data was considered to be fairly reliable.

Few Canadian Studies included in cost estimate

Only four of the 65 studies used in the Gabor (2015) cost analysis were conducted in Canada, and more than half were conducted in the USA. Due to the higher criminal justice system costs in the American system, the costs of crime presented in this report may over-estimate crime costs. This report made two adjustments to correct for this limitation: homicide was excluded from the cost computation, and crime type mean (outliers removed) estimates were used.

No recidivism data or comparison group

A more precise cost analysis would require data on STR8 UP's members' recidivism rate, as well as recidivism data on a matched comparison group, and the difference between the two recidivism rates would provide the cost savings (or cost deficit) of STR8 UP. Neither STR8 UP's members' recidivism rate, not recidivism rate of Saskatchewan gang members were available. Instead, recent recidivism rates for Québec street gangs members (20.9% re-convicted within one year post-release; Guay, 2012) was used to estimate the cost savings from receiving STR8 UP programming.

4.6. Ethics

This evaluation was granted an exemption by the University of Saskatchewan's Behavioural Research Ethics Board as per Article 2.5 of the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans – TCPS 2 (2018) (Beh# 256), which states "*Quality assurance and quality improvement studies, program evaluation activities, and performance reviews, or testing within normal educational requirements when used exclusively for assessment, management or improvement purposes, do not constitute research for the purposes of this Policy, and do not fall within the scope of REB review"* (see Appendix A).

5. Cost Analysis Findings

This chapter presents STR8 UP's costs analysis for the period 2015 to 2019. Two sources of data were used to conduct this cost analysis: (1) STR8 UP's yearly statements for the 2015 to 2019 fiscal years, and (2) cost of crime estimates provided by Gabor (2015).

5.1. STR8 UP Yearly Costs: 2015-2019

5.1.1. STR8 UP's Paid Costs

STR8 UP's fiscal year is April 1 to March 31. Yearly statements are repeated in the successive year; if there were discrepancies, it was assumed that the more recent figures corrected errors from the earlier period. To convert fiscal year figures to calendar year, expenditures were assumed to be equally distributed for each month in the fiscal year, and:

1. January-March 2015 data were obtained from the 2014/15 fiscal year and April-December 2015 data were obtained from the 2015/16 fiscal year.

2. January-March 2016 data were obtained from the 2015/16 fiscal year and April-December 2016 data were obtained from the 2016/17 fiscal year.

3. January-March 2017 data were obtained from the 2016/17 fiscal year and April-December 2017 data were obtained from the 2017/18 fiscal year.

4. January-March 2018 data were obtained from the 2017/18 fiscal year and April-December 2018 data were obtained from the 2018/19 fiscal year.

5. The one month average for the 2018/19 financial statement was multiplied by twelve, to compute the 2019 calendar year paid cost estimate.

STR8 UP's paid costs per year ranged from close to $300K in 2015, to almost $500K in 2018 and 2019. The majority of expenses were for wages and benefits, followed by outreach and programming. These figures are presented in Table 1, along with the itemized cost breakdown for the years 2015 through 2019.

5.1.2. STR8 UP's Unpaid/Volunteer Costs

A substantial amount of STR8 UP costs are unpaid. Unpaid costs included out-of-pocket expenses (e.g., meals, clothing, travel, treatment/detox, funeral expenses, government identification fees, and miscellaneous expenditures to aid program participants), mileage computed at a rate of $0.47/KM, telephone and internet used while conducting STR8 UP work, and volunteer time. Staff members volunteer time included leading and/or assisting presentations (including Sharing Circles at Kilburn Hall Young Offender, Calder Treatment Center, Masci Treatment Center, and Saskatoon Correctional Center) to STR8 UP Members and their families; email/telephone communications; speaking to media; attending court; visiting participant family members; visiting participants in Court; visiting family and participants in hospital; attending STR8 UP meetings; attending/organizing funerals; working on special projects; monitoring and training STR8 UP members for presentation and on the history/culture of STR8 UP; attending participants' parole meetings; electronic communications on behalf of STR8 UP; answering calls

from parole officers about participants; writing letters on behalf of participants for court/housing/school programs and letters to participants in jail; facilitating sharing circles in community/jails; taking participants to ceremonies (e.g., Sweats, Round dances, Pow Wow, Cultural Camps); supervising Practicum students; and networking with Stakeholders and Community Organizations on behalf of STR8 UP. An hourly rate of $27, obtained from the Conference Board of Canada's (2018) estimation of the core non-profit sector value of a volunteer hour, was used to estimate unpaid/volunteer work for staff members. An hourly rate of $27 was also used to estimate the volunteer costs of STR8 UP's Board Members to attend monthly board meetings. STR8 UP unpaid costs were relatively consistent for the five year period, 2015-2019. Yearly unpaid costs were approximately $111K for the years 2015-2018, and increased to slightly over $120K in 2019. Given the experience of the staff and board members in gang-desistence, re-integration and family reunification, this is a conservative estimate as their volunteer time was only costed as $27 per hour.

Table 1. STR8 UP: Total Paid and Unpaid Yearly Costs: 2015-2019

	2015	2016	2017[b]	2018[b]	2019
Paid Expenses[a]					
Insurance	$1,124	$995	$2,774	$1,679	$1,108
Interest and bank charges	$351	$612	$1,318	$1,127	$996
Meeting expenses	$1,002	$2,634	$1,450	$1,094	$1,162
Member travel and miscellaneous	$8,319	$5,861	$2,369	$3,998	$4,886
Office and general[c]	$3,399	$5,393	$7,768	$7,967	$7,823
Outreach and programming	$38,765	$79,489	$84,478	$113,739	$123,968
Professional fees	$6,034	$5,940	$6,530	$12,598	$14,514
Program honouraria[d]	$34,829	$75,691	$107,111	$77,368	$65,095
Rent	$11,148	$10,055	$12,243	$11,146	$10,488
Speaker fees	$9,546	$4,939	$1,722	$15,918	$20,849
T-shirt and book purchases	$2,171	-$230	$2,886	$1,005	$0
Telephone and internet	$3,718	$3,829	$4,462	$6,495	$7,103
Training	$0	$0	$6,254	$2,328	$325
Vehicle repairs and maintenance	$1,638	$3,022	$2,202	$1,848	$1,864
Wages and benefits	$156,095	$210,419	$203,220	$222,420	$230,870
Total Paid Expenses	**$278,138**	**$408,648**	**$446,783**	**$480,729**	**$491,051**
Unpaid Expenses[e]					
Out of Pocket	$3,500	$3,500	$3,500	$3,500	$3,551
Mileage	$4,504	$4,504	$4,504	$4,504	$4,269
Volunteer (Unpaid) Work[f]	$102,280	$102,280	$102,280	$102,280	$111,480
Telephone and internet	$1,025	$1,025	$1,025	$1,025	$1,055
Total unpaid Expenses	**$111,309**	**$111,309**	**$111,309**	**$111,309**	**$120,355**
Total Cost Per Year[g]	**$389,448**	**$519,957**	**$558,093**	**$592,038**	**$611,406**

Notes continue on the next page

[a] STR8 UP's fiscal year is April 1 to March 31. To convert the fiscal year cost estimates to calendar year for 2019, 9 months (April-December) were obtained from the 2018/2019 yearly financial statement and 3 months (January-March) were obtained from the 2019/2020 yearly financial statement. Equally spending per month was assumed.

[b] Paid expenses figures obtained from the 2017-2018 unaudited yearly statement for the 2017 fiscal year, and from the 2018-2019 audited yearly statements for the 2018 fiscal year. For the other years, the preceding and following

statements had consistent cost information (e.g., 2016 figures were identical in the 2015/2016 financial statement and 2016/2017 financial statement.
[c] Office and General was termed Office Supplies in 2015-2016 unaudited yearly statement.
[d] Program honouraria was termed Consulting fee in 2015-2016 unaudited yearly statement.
[e] These figures were provided by STR8 Up about their various expenses not reimbursed by the organization (i.e., costs borne by the volunteers). Contact STR8 UP for details on the unpaid expenses computation.
[f] Hourly rates obtained from The Conference Board of Canada's (2018), report titled "The Value of Volunteering in Canada," which used the hourly wage in the core non-profit sector to estimate the dollar value of volunteer hours in 2017 at $27 per hour.
[g] Included services and supports directly provided to participants and 120 presentations and Sharing Circles a year in Saskatoon and out-of-town (at Kilburn Hall Young Offender, Calder Treatment Center, Masci Treatment Center, and Saskatoon Correctional Center), which provides supports to ~ 2,600 participants and family members per year.

STR8 UP's total costs per year ranged from close to $400K in 2015, to more than $600K in 2019. Unpaid costs were generally around 20% of total STR8 UP costs—with the exception of 2015, when unpaid cost was 29% of STR8 UP total costs. STR8 UP provided supports and services to 45-75 participants and their family members (~2,600) per year in the five year period. This included 120 presentations a year in Saskatoon and out-of-town at Kilburn Hall Young Offender, Calder Treatment Centre, Masci Treatment Centre, and Saskatoon Correctional Centre. See the previous chapter for a detailed explanation of the services and supports provided by STR8 UP to Members and Members' families.

5.2. STR8 UP's Total Costs per Participant

STR8 UP's paid cost per participant fluctuated in the $6K per participant range for most of the five year period, with the exception of 2016, when cost per participant exceeded $7K. In addition to the paid costs, through unpaid costs, STR8 UP staff and Board incurred an additional $1.5K to slightly over $2K per participant per year in the five year period. When paid and unpaid costs were combined, the total cost per participant generally ranged from a minimum of around $8K in 2019 to a maximum of over $9K in 2016. The largest expense item was paid and unpaid wages. STR8 UP's total costs per participant are itemized in Table 2 and displayed in Figure 1.

Table 2. STR8 UP: Total Paid and Unpaid Yearly Cost per Participant: 2015-2019

	2015	2016	2017[b]	2018[b]	2019
Participants	***45***	***55***	***65***	***70***	***75***
Paid Expenses[a]					
Insurance	$25	$18	$43	$24	$15
Interest and bank charges	$8	$11	$20	$16	$13
Meeting expenses	$22	$48	$22	$16	$15
Member travel and miscellaneous	$185	$107	$36	$57	$65
Office and general[c]	$76	$98	$120	$114	$104
Outreach and programming	$861	$1,445	$1,300	$1,625	$1,653
Professional fees	$134	$108	$100	$180	$194
Program honouraria[d]	$774	$1,376	$1,648	$1,105	$868
Rent	$248	$183	$188	$159	$140
Speaker fees	$212	$90	$26	$227	$278
T-shirt and book purchases	$48	-$4	$44	$14	$0
Telephone and internet	$83	$70	$69	$93	$95
Training	$0	$0	$96	$33	$4
Vehicle repairs and maintenance	$36	$55	$34	$26	$25
Wages and benefits	$3,469	$3,826	$3,126	$3,177	$3,078
Paid Cost per Participant	**$6,181**	**$7,430**	**$6,874**	**$6,868**	**$6,547**
Unpaid Expenses[e]					
Out of Pocket	$78	$64	$54	$50	$47
Mileage	$100	$82	$69	$64	$57
Volunteer (Unpaid) Work[f]	$2,273	$1,860	$1,574	$1,461	$1,486
Telephone and internet	$23	$19	$16	$15	$14
Unpaid Cost per Participant	**$2,474**	**$2,024**	**$1,712**	**$1,590**	**$1,605**
Total Cost per Participant[g]	**$8,654**	**$9,454**	**$8,586**	**$8,458**	**$8,152**

[a] STR8 UP's fiscal year is April 1 to March 31. To convert the fiscal year cost estimates to calendar year for 2019, 9 months (April-December) were obtained from the 2018/2019 yearly financial statement and 3 months (January-March) were obtained from the 2019/2020 yearly financial statement. Equally spending per month was assumed.

[b] Paid expenses figures obtained from the 2017-2018 unaudited yearly statement for the 2017 fiscal year, and from the 2018-2019 audited yearly statements for the 2018 fiscal year. For the other years, the preceding and following statements had consistent cost information (e.g., 2016 figures were identical in the 2015/2016 financial statement and 2016/2017 financial statement.

[c] Office and General was termed Office Supplies in 2015-2016 unaudited yearly statement.

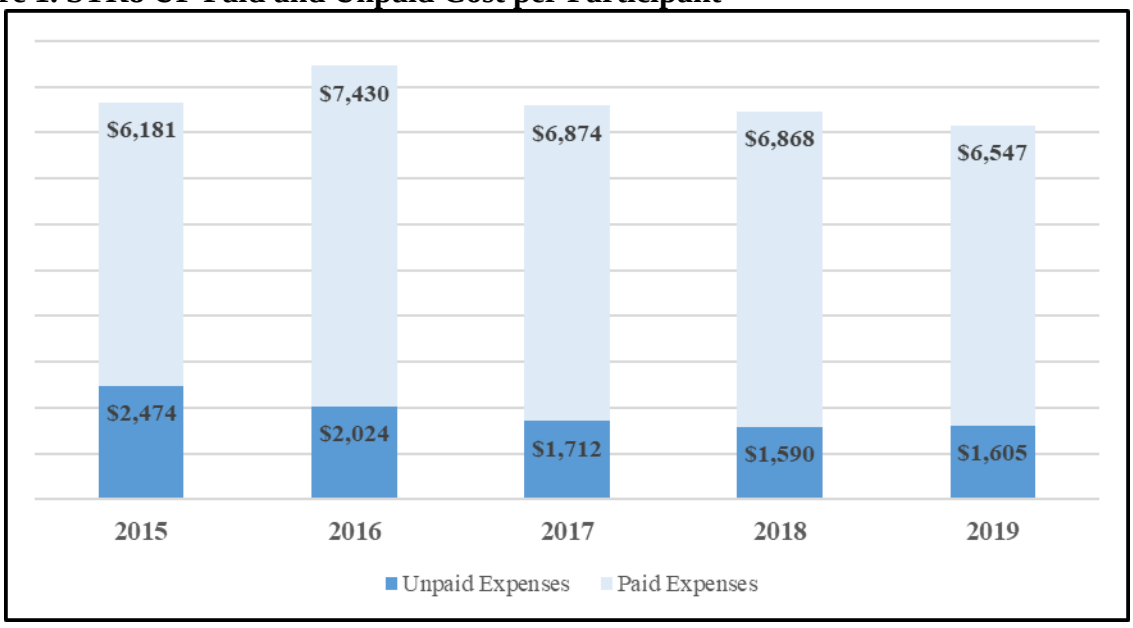
D Program honouraria was termed Consulting fee in 2015-2016 unaudited yearly statement.

[e] These figures were provided by STR8 Up about their various expenses not reimbursed by the organization (i.e., costs borne by the volunteers). Contact STR8 UP for details on the unpaid expenses computation.

[f] Hourly rates obtained from The Conference Board of Canada's (2018), report titled "The Value of Volunteering in Canada," which used the hourly wage in the core non-profit sector to estimate the dollar value of volunteer hours in 2017 at $27 per hour.

[g] Included services and supports directly provided to participants and 120 presentations and Sharing Circles a year in Saskatoon and out-of-town (at Kilburn Hall Young Offender, Calder Treatment Center, Masci Treatment Center, and Saskatoon Correctional Center), which provides supports to ~ 2,600 participants and family members per year.

Figure 1. STR8 UP Paid and Unpaid Cost per Participant

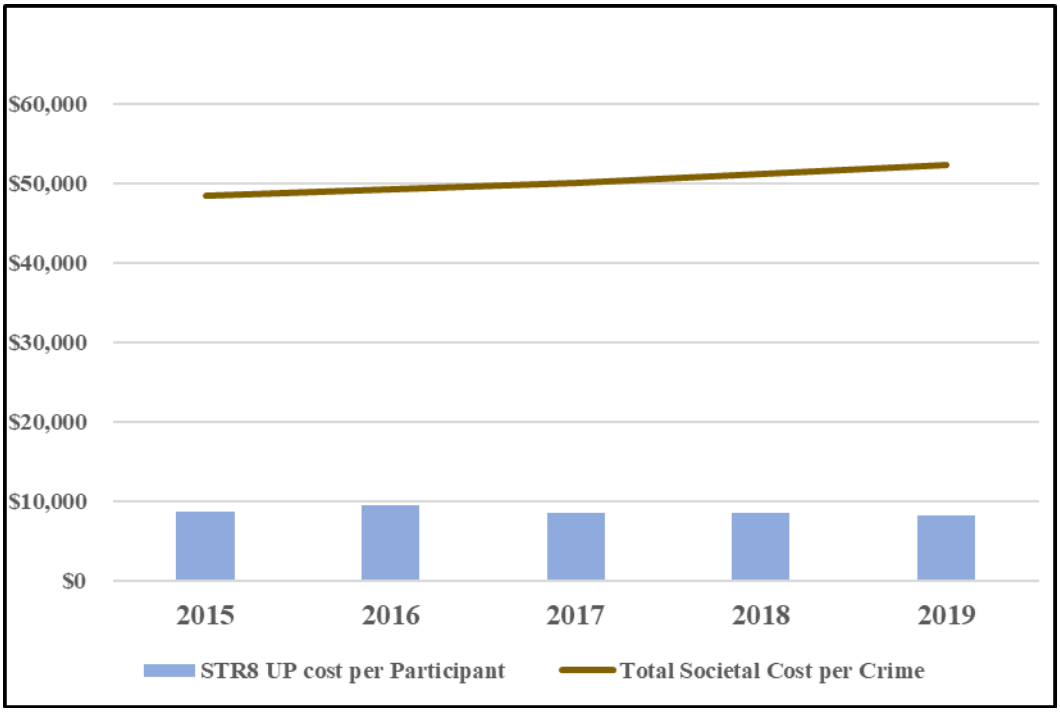


5.3. Cost of Crime Estimates

Gabor (2015) conducted a literature review of global publications from 1988 to 2016 and computed cost estimates for various types of crimes on August 1, 2014 Canadian dollars (see Appendix B). Based on the literature review, Gabor (2015) estimated the total cost per crime and converted the cost to Canadian 2014 dollars. The total cost of crime included: (1) criminal justice system costs (CJS; law enforcement, court, corrections, programs and services); (2) victims' tangible costs (i.e., property losses, lost wages and medical cost because of injuries incurred during the crime); (3) victims' intangible costs (i.e., pain and suffering of victims and loss in quality of life, as deemed in civil court cases against the offender); and (4) criminal career costs (i.e., wages lost when the offender missed out on a legitimate work). The CJS, victim tangible, victim intangible and total societal costs were intended to be inclusive (e.g., incorporate personal costs borne by victims, payouts by insurers to victims for property damage, court settlements for pain, suffering and loss wages for victims; costs borne by city, provincial, and federal justice [court, policing and corrections] systems; and programming, diversion and reintegration costs).

Gabor (2015) estimated mean, mean (outliers removed), median, minimum and maximum costs for the following crime categories: homicide, sexual assault/rape, assault, aggravated assault, robbery, motor vehicle theft, arson, burglary, theft, and fraud. Gabor (2015) noted several limitations in his computations, including few Canadian studies, the likelihood that American justice system and court settlements inflated his estimates and the possible over-estimation of the cost homicide (due to court settlement cases). Two decisions were made to reduce the biases Gabor (2015) noted in his findings: (1) homicide was excluded from the costs of crime estimates, and (2) this report used Gabor's (2015) mean (outliers removed) estimates for CJS, victims' tangible, victims' intangible, criminal career and total/societal cost of crime. Therefore, the following crime types were averaged—sexual assault/rape, assault, aggravated assault, robbery, motor vehicle theft, arson, burglary, theft, and fraud—to compute CJS, victims' tangible, victims' intangible, criminal career and total/societal cost of crime, and outlier estimates for each of the crime types were excluded from the cost of crime average.

Figure 2. STR8 UP (Paid and Unpaid) Cost per Participant vs. Total Societal Cost per Crime



Note. Gabor (2015) conducted a literature review of global publications from 1988 to 2016 and computed cost estimates for various types of crimes in August 1, 2014 Canadian dollars (See Appendix B). Statistics Canada inflation calculator provided by the Bank of Canada was used to convert Gabor's (2015) mean cost estimate (outliers removed), averaged for all offense types excluding homicide, for total societal cost of one criminal offense ($48,081.03), to 2015, 2016, 2017, 2018 and 2019 figures. No additional adjustments to Gabor's (2015) crime cost estimates were made. Total cost per crime included (1) criminal justice system (CJS; law enforcement, court, corrections, programs and services); (2) victims' tangible (i.e., property losses, lost wages and medical cost because of injuries incurred during the crime); (3) victims' intangible (i.e., pain and suffering of victims and loss in quality of life, as deemed in civil court cases against the offender); and (4) criminal career (i.e., wages lost when the offender miss out on a legitimate work) costs. Assuming STR8 UP deter each participant from one offense per year; total (paid and unpaid) STR8 UP expenses were substantially lower than the total societal cost of one offence.

5.3.1. STR8 UP Total Costs vs. Societal Cost of Crime

Statistics Canada's inflation calculator provided by the Bank of Canada was used to convert Gabor's (2015) mean cost estimate (outliers removed), averaged for all offense types excluding homicide, for the total societal cost of one criminal offense: $48,081.03 09 (for computation details, see Appendix B), to 2015, 2016, 2017, 2018 and 2019 Canadian dollars. No additional adjustments to Gabor's (2015) crime cost estimates were made. Total societal cost of crime was compared to STR8 UP's paid and unpaid cost per participant for the period (2015-2019), whereby expenses were listed in 2015, 2016, 2017, 2018 and 2019 Canadian dollars, respectively.

In Figure 2, the cost of one criminal offense (Gabor, 2015) is depicted by the dark yellow line and STR8 UP's total costs are depicted by the light blue bars. STR8 UP's total costs per participant ranged from a minimum of $8,152 per participant in 2019 to a maximum of $9,454 in 2016. When adjusted for inflation, total societal cost of crime increased incrementally each year, from over $48K in 2015, to slightly over $52K in 2019. If we assume STR8 UP deterred each participant from one offense per year, the city of Saskatoon, its residents and the province of

Saskatchewan saved almost $40K in 2015 and 2016, slightly over $41K in 2017, almost $43K in 2018 and slightly over $44K in 2019.

Table 3. Total STR8 UP (Paid and Unpaid) Cost per Participant vs. Total Societal Cost (20% Recidivism Rate)

	2015	2016	2017	2018	2019
Participants	***45***	***55***	***65***	***70***	***75***
Total Societal Cost (20% recidivism)	$436,186	$541,987	$651,014	$716,684	$783,429
Total STR8 UP Cost Per Year	$389,448	$519,957	$558,093	$592,038	$611,406
Cost Savings	**$46,738**	**$22,029**	**$92,921**	**$124,645**	**$172,023**

Note. The computation for "Total STR8 UP Cost per year" was provided in Table 1. The "Total Societal Cost" was computed as ([yearly participants * .2] * total societal cost of one offense).

It is more realistic to assume STR8 UP deterred 20% of participants from a re-conviction within a one year period, which has been found to be the recidivism re-conviction rate of gang members in Québec (Guay, 2012).[5] As illustrated in Table 3, assuming a 20% re-conviction deterrence rate, STR8 UP saved the city of Saskatoon, its residents and the province of Saskatchewan almost $500K in the period 2015 to 2019, with the majority of cost savings in 2018 (almost $125K) and 2019 (more than $170K).

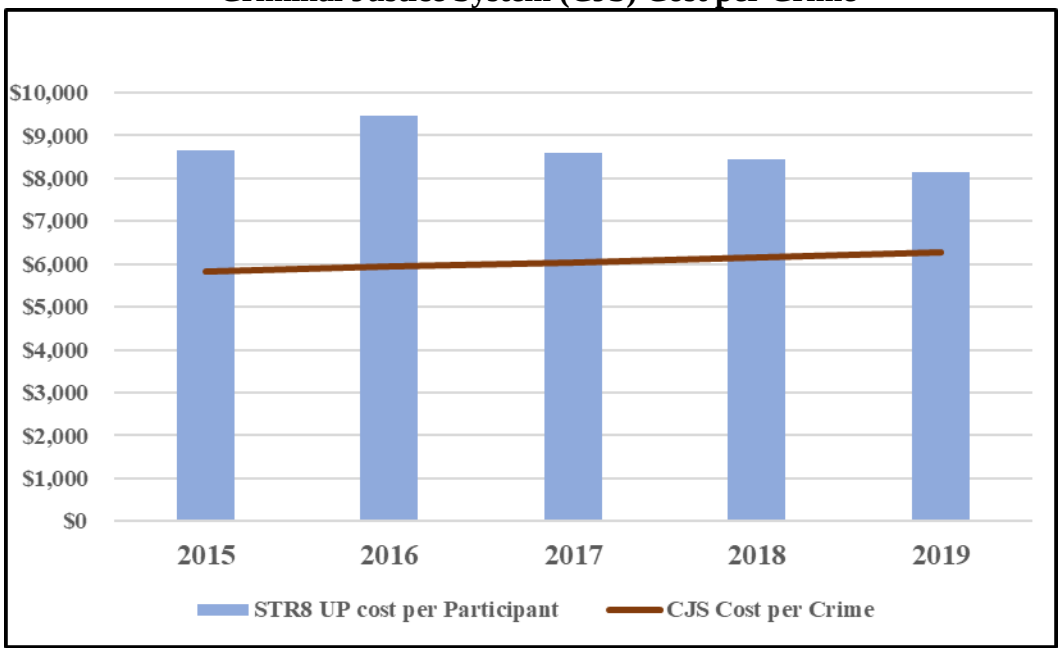
5.3.2. STR8 UP Costs vs. Criminal Justice System Cost of Crime

Total STR8 UP Costs vs CJS Costs

From a policy standpoint, the Criminal Justice System (CJS) Cost may be more directly relevant than the societal costs of crime. When STR8 UP's total (paid and unpaid) costs per participant (approximately $8-9K per participant per year between 2015-2019) was compared to the average CJS cost of one processing one crime, STR8 UP's costs exceeded the CJS cost by approximately $2-3.5K per year (i.e., $2,819, $3,522, $2,557, $2,294 and $1,864 in 2015 through 2019, respectively). This analysis is illustrated in Figure 3.

[5] According to Guay (2012), 80.2% of Québec street gangs members were re-arrested and 20.9% of gang members were re-convicted within one year post-release compared to 52.3% and 18.6%, respectively, among a matched sample of non-gang members. Bonta et al. (2003) found a 1-year re-conviction rate of 44% for all Canadian federal releases in the fiscal year April 1, 1994 to March 31, 1995, 1995/96 and 1996/97 fiscal years; the 2-year re-conviction rate was 43%, and the 3-year re-conviction rate was 41%. More recently, Stewart and Wilton (2019) found a 23% 2-year re-conviction rate among released Canadian federal inmates. Based on Stewart and Wilton's (2019) findings, it is logical to conclude that 2-year recidivism rates among Canadian federal inmates declined from 41%-44% (Bonta et al., 2003) in the mid-1990s to approximately 23%. Guay's (2012) 1-year recidivism rate (18.6%), which is appropriate for this analysis, appears consistent with Stewart and Wilton's (2019) findings.

Figure 3. STR8 UP (Paid and Unpaid) Cost per Participant vs. Criminal Justice System (CJS) Cost per Crime

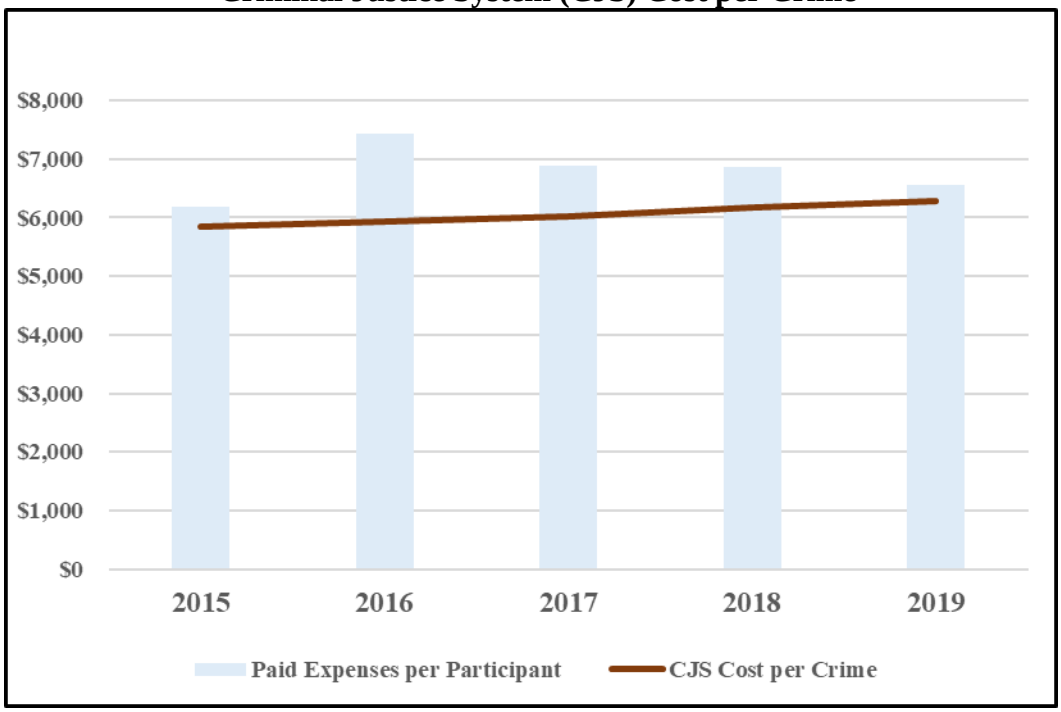


Note. Gabor (2015) conducted a literature review of global publications from 1988 to 2016 and computed cost estimates for various types of crimes in August 1, 2014 Canadian dollars (See Appendix A). Statistics Canada inflation calculator provided by the Bank of Canada was used to convert Gabor's (2015) mean cost estimate (outliers removed) for all offense types excluding homicide for criminal justice cost system (CJS) costs ($5,788.89) to 2015, 2016, 2017, 2018 and 2019 figures. No additional adjustments to Gabor's (2015) crime cost estimates were made. No recidivism data was available for STR8 UP and a matched comparison group of released offenders without STR8 UP support to determine their respective recidivism rates in 2015-2019.

Paid STR8 UP Costs vs. CJS Costs

If all non-paid expenses are omitted from the analysis, and STR8 UP's paid cost per participant per year are compared to the CJS costs of deterring each participant from one offense in a year, STR8 UP's costs exceeded the CJS cost by a few hundred dollars (i.e., $346, $1,498, $844, $704 and $259 in 2015 through 2019, respectively). See Figure 4 for analysis. Overall, this minor financial loss to the funders to finance STR8 UP mitigates the tremendous cost of crime on victims, justice-involved persons (e.g., difficulty finding work, poverty; Bhuller et al., 2016) and family members of justice-involved persons (e.g., increased family disruption, mental illness, substance abuse, sexual and/or physical abuse among family members due to repeated parental incarceration; Rodriquez, 2016). In other words, while STR8 UP's costs (both total and paid) exceeded the CJS costs of deterring each participant from one offense in a year, the saved societal costs—close to $500K in the 5 year period 2015-2019, assuming a 20% re-conviction deterrence rate—supported STR8 UP's model.

Figure 4. STR8 UP Paid Cost per Participant vs. Criminal Justice System (CJS) Cost per Crime



Note. Gabor (2015) conducted a literature review of global publications from 1988 to 2016 and computed cost estimates for various types of crimes in August 1, 2014 Canadian dollars (See Appendix A). Statistics Canada inflation calculator provided by the Bank of Canada was used to convert Gabor's (2015) mean cost estimate (outliers removed) for all offense types excluding homicide for criminal justice cost system (CJS) costs ($5,788.89) to 2015, 2016, 2017, 2018 and 2019 figures. No additional adjustments to Gabor's (2015) crime cost estimates were made. No recidivism data was available for STR8 UP and a matched comparison group of released offenders without STR8 UP support to determine their respective recidivism rates in 2015-2019. STR8 UP paid expenses per participant was very similar to the CJS cost of processing one criminal offense.

6. Summary and Conclusion

In this report, we reviewed the literature on gang prevention programs, provided program descriptions of STR8 UP's two concurrent gang intervention programs and a logic model for the STR8 UP program, and presented a cost analysis of the programs provided by STR8 UP between the years 2015 and 2019.

In the literature review, we first reviewed the purposes and components of 13 different gang intervention programs implemented across North America. Our review indicated that these programs are developed as alternatives to the traditional suppressive approaches and aimed to re-engage participants to their community and adopt prosocial behaviours while desisting from criminal behaviours and gang life. The programs used some common strategies such as developing participants' life, education, and employment skills through education, counselling, mentorship, and outreach activities. The success of these programs depended on garnering community and family support, taking a multi-disciplinary approach, employing dedicated program staff, partnering with community agencies, using risk-based approaches, integrating cultural components, and taking a phased approach which prioritized the sustainability of behavioural change in the clients. We outlined the measures used to assess the effectiveness of these programs and the outcomes of these programs. The most common measures were risk levels, recidivism/desistance, behavioural change, substance use, school success, and employment. Overall, the programs aimed to change participants' behaviours in positive ways and promoted a prosocial lifestyle as an alternative to gang life through enhanced attachment to family, school employment, and the community as a whole.

The best practices and culturally sensitive approaches used in the gang intervention programs were also reviewed in this study. The most common practices that have led to positive outcomes in gang intervention programs are building trusting relationships through regular contacts with participants, incorporating family and community support into the model, relentless targeted outreach activities, providing treatment to participants in their own environment, addressing mental health issues and other factors underlying behavioural problems, using a risk-needs approach while building on participants' strengths, and integrating cultural programming. The risk-needs approach, also known as the Risk-Needs-Responsivity (RNR) model, is considered one of the best methods in offender rehabilitation. Briefly, the RNR model suggests that intervention strategies should start with identifying the 'risk' levels and risk factors for the individual as well as the specific 'needs' corresponding those risk factors. Based on the identified risks factors and needs, personalized intervention methods and case plans should be developed (Andrews & Bonta, 2006). Understanding cultural sensitivities of the targeted population and the integration of cultural activities are vital components of these programs. Culturally sensitive approaches help participants re-engage with their identity and community, and thus, heal from the trauma and desist from criminal behaviours and gang lifestyle.

STR8 UP currently provides programs and services under two concurrent models: Community Intervention Model (CIM) and Community Outreach Model. Based upon our review of the literature, STR8 UP's programs align with the best practices in the gang intervention literature. Specifically, the phased approach in the CIM and COM, relentless outreach activities, broad community support towards STR8 UP, dedication of STR8 UP members to sustainable change, and the integration of cultural programming into both models are the main strengths of STR8 UP. The phased approach in the CIM model of STR8 UP consisting of relentless outreach, transformation, and support and sustainment phases is similar to the Roca program's stage-based

strategy, which focuses relentless outreach and follow-up, transformational relationships, sustainability of behavioural changes, and the engagement of community agencies into the program. The success of models such as Cure Violence and GYRD is partially attributed to the integration of community support into the implementation of program. STR8 UP is a grass roots organization which is supported by a wide range of community agencies and members. Reflective of this broad support, the Provincial Gang Prevention Strategy endorsed STR8 UP as the 'champion' for gang intervention in the province and was developed through community consultations and forums.

STR8 UP's arguably most important strength is its ability to build authentic and healthy relationships with the individuals they provide programs. The impact of these relationships is obvious in the responses of STR8 UP members when they were asked why they continued to be involved in STR8 UP. These types of relationships are developed by STR8 UP primarily through the incorporation of culture and spirituality components in its program activities, which is beyond a pure 'case planning' approach. As Higginson et al.'s (2015) systematic review indicated, programs that ensure active engagement of participants, embrace their agency, and offer leadership to them are more likely to be successful. The "membership" concept of STR8 UP ensures its members have a sense of belonging towards their new lifestyle and embrace their new identity while being supported through cultural teachings and programs, which can be obviously recognized when the healing journey stories of the members in *STR8 UP & Gangs: Troubled Past or Healthy Future* are scrutinized. Finally, instead of a risk-based approach like the RNR model, STR8 UP prefers to identify the strengths of its members and build on those strengths through cultural teachings, vocational training, and employment opportunities (STR8 UP, 2020).

The cost analysis of STR8 UP's activities from 2015 to 2019 indicated that the yearly cost of STR8 UP activities per participant ranged between $8,000 and $9,000. The largest expense item was paid and unpaid wages of STR8 UP staff. Research has shown that the criminal justice system saves considerable amounts of resources even with a modest level of reduction in crime rates (McCollister, French, & Fang, 2010). For example, in the cost analysis of the Stop Now and Plan (SNAP) program, a 9-year follow-up of Canadian high risk juvenile offenders showed that for every $1.00 spent in the intervention program, the criminal justice system saved between $2.05 and $3.75 in the long run (Farrington & Koegl, 2015). The comparison of program costs with the societal cost of crime and the cost of Criminal Justices System (CJS) to deter crime showed interesting results. Although STR8 UP's total costs exceeded the CJS costs of deterring each participant from one offense in a year, STR8 UP saved a remarkable amount of taxpayers' money in terms of societal costs (approximately $500,000 in the 5-year period 2015-2019).

Taken together, STR8 UP programs are in line with best practices to provide sustainable solutions for the ongoing gang-related problems in Saskatchewan. Future studies should empirically examine the short- and long-term outcomes of the ongoing CIM and COM projects by using the measures outlined in this study. A more comprehensive cost analysis and outcome evaluation can be conducted once the projects are completed.

Besides the previous achievements of STR8 UP and dedication of its staff and members, there are other elements needed to ensure the sustainability of its programs. In a report summarizing the review of 231 criminal justice programs funded by the U.S. Bureau of Justice Assistance, Aharoni et al. (2014) identified the following key characteristics of sustainable programs:

- Increased funding stability,

- Increased modifiability,
- Increased political support,
- Stronger partnerships,
- Greater organizational capacity,
- Program evaluation,
- Greater public impact,
- Strategic planning.
- Existence of well-connected project leaders.

Being a grass root organization with more than a decade of experience, STR8 UP's own resources and strengths meet most of the characteristics that Aharoni et al (2014) identified. To ensure a more sustainable future, support from all governmental and non-governmental stakeholders is needed.

7. References

Aharoni, E., Rabinovich, L., Mallett, J., & Morral, A. R. (2014). An Assessment of Program Sustainability in Three Bureau of Justice Assistance Criminal Justice Domains. https://www.rand.org/pubs/research_reports/RR550.html

Andrews, D.A., Bonta, J., & Hoge, R.D. (1990). Classification for effective rehabilitation: Rediscovering psychology. Criminal Justice and Behaviour, 17, 19-52.

Andrews, D. A., & Bonta, J. (2006). The psychology of criminal conduct (4th ed.). Newark, NJ: LexisNexis.

Bonta, J., Rugge, T., & Dauvergne, M. (2003). *The reconviction rate of federal offenders*. (User Report 2003-02). Ottawa: Solicitor General Canada. https://www.publicsafety.gc.ca/cnt/rsrcs/pblctns/rcnvctn-rt-fdrl/rcnvctn-rt-fdrl-eng.pdf

Bracken, D. C., Deane, L., & Morrissette, L. (2009). Desistance and social marginalization: The case of Canadian Aboriginal offenders. Theoretical Criminology, 13(1), 61–78. https://doi.org/10.1177/1362480608100173

Brokenleg, M., & Van Bockern, S. (2003). The Science of Raising Courageous Kids. Reclaiming Children and Youth: The Journal of Strength-Based Interventions, 12(1), 22–27.

Brunk, M., Henggeler, S.W.,&Whelan, J.P. (1987). A comparison of multisystemic therapy and parent training in the brief treatment of child abuse and neglect. Journal of Consulting and Clinical Psychology, 55, 311–318.

Burchard, J.; Bruns, E.; & Burchard, S. (2002). The Wraparound Process: Community-based Treatment for Youth. Oxford: Oxford University Press.

Burchard, J., Burchard, S., Sewell, R., & VanDenBerg, J. (1993). One kid at a time: Evaluative case studies and description of the Alaska Youth Initiative Demonstration Project. Washington D.C.: Georgetown University Child Development Center.

Burns, B. J., Schoenwald, S. K., Burchard, J. D., Faw, L., & Santos, A. B. (2000). Comprehensive Community-Based Interventions for Youth with Severe Emotional Disorders: Multisystemic Therapy and the Wraparound Process. Journal of Child and Family Studies, 9(3), 283–314. https://doi.org/10.1023/A:1026440406435

Butts, J., Bostwick, L. & Porter, J. (2014). Denormalizing Violence: Evaluation Framework for a Public Health Model of Violence Prevention. New York, NY: Research & Evaluation Center, John Jay College of Criminal Justice, City University of New York.

Butts, J. A., Roman, C. G., Bostwick, L., & Porter, J. R. (2015). Cure Violence: A Public Health Model to Reduce Gun Violence. Annual Review of Public Health, 36(1), 39–53. https://doi.org/10.1146/annurev-publhealth-031914-122509

Cahill, M., Jannetta, J., Tiry, E., Lowry, S., Becker-Cohen, M., Paddock, E., & Serakos, M. (2015). Evaluation of the Los Angeles Gang Reduction and Youth Development Program. Urban Institute. Retrieved September 8, 2020 from https://www.urban.org/sites/default/files/publication/77956/2000622-Evaluation-of-the-Los-Angeles-Gang-Reduction-and-Youth-Development-Program-Year-4-Evaluation-Report.pdf

Chettleburg, M. C. (2003). The 2002 Canadian Police Survey on Youth Gangs (Cat no. PS4/4-2002). Public Safety and Emergency Preparedness Canada.

Clark, H., Prange, M., Lee, B., Stewart, E., McDonald, B., & Boyd, L. (1998). An individualized wraparound process for children in foster care with emotional/behavioural disturbances: Follow-up findings and implications from a controlled study. In: M.E. Epstein, K. Kutash, & A. Duchnowski (Eds.), Outcomes for children and youth with behavioural and Emotional disorders and their families: Programs and evaluation best practices (pp. 513–542). Austin, TX: Pro-Ed Publishing.

Criminal Intelligence Service Saskatchewan. (2005). 2005 Intelligence trends: Aboriginal-based gangs in Saskatchewan. CISS, 1(1), 1-8.

The Conference Board of Canada. (2018, April 5). The Value of Volunteering in Canada. Briefing presented to Volunteer Canada.https://volunteer.ca/vdemo/Campaigns_DOCS/Value%20of%20Volunteering%20in%20Canada%20Conf%20Board%20Final%20Report%20EN.pdf

Deane, L., Bracken, D. C., & Morrissette, L. (2007). Desistance within an urban Aboriginal gang. Probation Journal, 54(2), 125–141. https://doi.org/10.1177/0264550507077231

Decker, S.H., Melde, C., & Pyrooz, D.C. (2013). What Do We Know About Gangs and GangMembers and Where Do We Go From Here? Justice Quarterly, 30(3), 369-402, DOI: 10.1080/07418825.2012.732101

Esbensen, F.-A., Peterson, D., Taylor, T. J., Freng, A., Osgood, D. W., Carson, D. C., & Matsuda, K. N. (2011). Evaluation and Evolution of the Gang Resistance Education and Training (G.R.E.A.T.) Program. Journal of School Violence, 10(1), 53–70. https://doi.org/10.1080/15388220.2010.519374

Esbensen, F.-A., Osgood, W., Peterson, D., & Taylor, T. J. (2016). *Process and Outcome Evaluation of the Gang Resistance Education and Training (G.R.E.A.T.) Program, 2006-2011* [UNITED STATES]. Inter-university Consortium for Political and Social Research [distributor]. https://doi.org/10.3886/ICPSR34899.v1

Esbensen, F. A., Peterson, D., Taylor, T. J., & Osgood, D. W. (2012). Is G.R.E.A.T. Effective? Does the Program Prevent Gang Joining? Results from the National Evaluation of G.R.E.A.T. St. Louis, MO: University of Missouri-St. Louis.

Farrington, D. P., & Koegl, C. J. (2015). Monetary benefits and costs of the Stop Now and Plan Program for boys aged 6-11, based on the prevention of later offending. Journal of Quantitative Criminology, 31, 263–287.

Fix, E., & Sovak, N. (2007). The Growing Case for Youth Engagement Through Culture. *Our Diverse Cities* 4:145-152.

Fridell, M., MacKinnon, S., & Fernandez, L. (2011). Community Gang Prevention Programs: Best Practices. Canadian Centre for Policy Alternatives. Winnipeg, Manitoba.

Gabor, T. (2015). *Costs of crime and criminal justice responses*. (Research Report: 2015–R022). Ottawa: Public Safety Canada. https://www.publicsafety.gc.ca/cnt/rsrcs/pblctns/2015-r022/2015-r022-en.pdf

Grekul, J., & LaBoucane-Benson, P. (2008). Aboriginal Gangs and Their (Dis)placement: Contextualizing Recruitment, Membership, and Status. *Canadian Journal of Criminology and Criminal Justice*. https://doi.org/10.3138/cjccj.50.1.59

GRYD Research & Evaluation Team. (2017). Summary of Key Findings. Retrieved October 8, 2020 from https://www.juvenilejusticeresearch.com/sites/default/files/2020-08/GRYD_2017Summation_HiRes.pdf

Goodwill, A., & Ishiyama, F. I. (2016). Finding the door: Critical incidents facilitating gang exit among indigenous men. Cultural Diversity and Ethnic Minority Psychology, 22(3), 333–340. https://doi.org/10.1037/cdp0000061

Guay, J (2012). *Predicting recidivism with street gang members.* (User Report 2012-02). Ottawa: Public Safety Canada. https://www.publicsafety.gc.ca/cnt/rsrcs/pblctns/2012-02-prsgm/2012-02-prsgm-eng.pdf

Henggeler, S. W., Clingempeel, W. G., Brondino, M. J., & Pickrel, S. G. (2002). Four-year follow-up of multisystemic therapy with substance-abusing and substance-dependent juvenile offenders. Journal of the American Academy of Child and Adolescent Psychiatry, 41(7), 868–874. https://doi.org/10.1097/00004583-200207000-00021

Henggeler, S.W., Melton, G.B., Smith, L.A., Schoenwald, S.K., & Hanley, J.H. (1993). Family preservation using multisystemic treatment: Long-term follow-up to a clinical trial with

serious juvenile offenders. Journal of Child and Family Studies, 2, 283–293.
Henggeler, S.W., Borduin, C.M., Melton, G.B., Mann, B.J., Smith, L., Hall, J.A., Cone, L., & Fucci, B.R. (1991). Effects of multisystemic therapy on drug use and abuse in serious juvenile offenders: A progress report from two outcome studies. Family Dynamics of Addiction Quarterly, 1, 40–51.
Henry, D., Knoblauch, S. & Sigurvinsdottir, R. (2014). The Effect of Intensive CeaseFire Intervention on Crime in Four Chicago Police Beats: Quantitative Assessment. Retrieved September 8, 2020 https://cvg.org/wp-content/uploads/2019/09/McCormick_CreaseFire_Quantitative_Report_091114.pdf
Henry, R. (2015). *Through an Indigenous Lens: Understanding Indigenous Masculinity and Street Gang Involvement*. https://harvest.usask.ca/handle/10388/ETD-2015-03-2009
Henry, R. (2018). Building Healthier Communities: Final Report on Community Recommendations for the Development of the Saskatchewan Prevention/Intervention Street Gang Strategy. Retrieved Aug 25, 2020 from http://provincialgangstrategy.ca/wp-content/uploads/2018/10/PGS-Report.pdf
Higginson, A., Benier, K., Shenderovich, Y., Bedford, L., Mazerolle, L., & Murray, J. (2015). Preventive Interventions to Reduce Youth Involvement in Gangs and Gang Crime in Low- and Middle-Income Countries: A Systematic Review. Campbell Systematic Reviews, 11(1), 1–176. https://doi.org/10.4073/csr.2015.18
Hobbema Community Cadet Corps (n.d.). *Who We Are*. Retrieved September 25, 2020, from https://hobbemacadets.webs.com/whoweare.htm
Homeboy Industries. (n.d.). Homeboy Industries: Our Mission. Retrieved October 9, 2020, from https://homeboyindustries.org/our-story/our-mission/
Hyde, K., Burchard, J., & Woodworth, K. (1996). Wrapping services in an urban setting. Journal of Child and Family Studies, 5, 67–82.
Jewell, L. M**.**, & Camman, C. (2014). *An evaluation of the Community Cadet Corps program in Saskatchewan.* Saskatoon, SK: Centre for Forensic Behavioural Science and Justice Studies, University of Saskatchewan.
Jewell, L. M., Akca, D., Mulligan, S., & Wormith, J. S. (2020). *Northeast Youth Violence Reduction Partnership (NYVRP) Final Evaluation: April 2019 - March 2020*. Saskatoon, SK: Centre for Forensic Behavioural Science and Justice Studies—University of Saskatchewan.
Johnson, E. I., & Easterling, B. (2012). Understanding unique effects of parental incarceration on children: Challenges, progress, and recommendations. *Journal of Marriage and Family, 74*(2), 342-356. doi:http://dx.doi.org/10.1111/j.1741-3737.2012.00957.x
Kittle, J. (2017). A Literature Review on Gang Violence. Journal of Trauma Nursing: The Official Journal of the Society of Trauma Nurses, 24(4), 270–279. https://doi.org/10.1097/JTN.0000000000000303
Koffman, S., Ray, A., Berg, S., Covington, L., Albarran, N. M., & Vasquez, M. (2009). Impact of a comprehensive whole child intervention and prevention program among youths at risk of gang involvement and other forms of delinquency. Children & Schools, 31(4), 239-245. doi:http://dx.doi.org/10.1093/cs/31.4.239
Leap, J., Franke. T., Christie, C., & Bonis, S. (2010). Nothing stops a bullet like a job: Homeboy Industries gang prevention and intervention in Los Angeles. In J. Hoffman & L. Knox (Eds.), Beyond suppression: Global Perspectives on Youth Justice (pp. 127–138). Santa Barbara, CA: Praeger
Manudeep, B., Dahl, G.B., Loken, K.V., & Mogstad, M. (2016). Incarceration, Recidivism, and Employment. *NBER Working Paper*, 22648. doi: 10.3386/w22648
McClanahan, W. S. (2004). Alive at 25: Reducing violence through monitoring and support. Philadelphia, PA: Public/Private Ventures.

McClanahan, W. S., Kauh, T. J., Manning, A. E., Campos, P., & Farley, C. (2012). Illuminating solutions: The Youth Violence Reduction Partnership. Philadelphia, PA: Public/Private Ventures.

McCollister, K. E., French, M. T., & Fang, H. (2010). The cost of crime to society: new crime-specific estimates for policy and program evaluation. Drug and Alcohol Dependence, 108, 98–109.

Milhalic, S., Irwin, K., Fagan, A., Ballard, D., & Elliott, D. (2004). Successful Program Implementation: Lessons from Blueprints: (300782005-001) [Data set]. American Psychological Association. https://doi.org/10.1037/e300782005-001

National Crime Prevention Centre. (2012). Regina Anti-Gang Services. Evaluation Summary. Ottawa, ON: Public Safety Canada. Available from: http://www.publicsafety.gc.ca/cnt/rsrcs/pblctns/rgn-nt-gng/index-eng.aspx

Orton, L., Patrick, G., Cordwell, T., Truswell, K., & Wormith, J. S. (2012). Process Evaluation of the Saskatoon STR8UP Program: Evaluation Report. Retrieved August 25, 2020 from https://cfbsjs.usask.ca/documents/STR8UpProcessEvaluation.pdf

OPK. (n.d.). O.P.K Services. Retrieved September 23, 2020, from http://www.opkmanitoba.com/services.html

Peterson, D., Panfi, V. R., Esbensen, F. A., & Taylor, T. J. (2009). National Evaluation of the Gang Resistance Education and Training (G.R.E.A.T.) Program: School Personnel Survey Report. St. Louis, MO: University of Missouri-St. Louis.

Preston, J. P., Carr-Stewart, S., & Northwest, C. (2009). "Aboriginal Youth Gangs: Preventative Approaches." *First Peoples Child & Family Review*, *4*(2), 152–160.

Preston, J. P., Carr-Stewart, S., & Bruno, C. (2012). The Growth of Aboriginal Youth Gangs in Canada. *The Canadian Journal of Native Studies*, *32*(2), 193–207.

Public Safety Canada (2018). Youth Alliance Against Gang Violence. https://www.publicsafety.gc.ca/cnt/rsrcs/pblctns/yth-llnc/index-en.aspx

Rodriguez, N. (2016). Bridging the Gap between Research and Practice: The Role of Science in Addressing the Effects of Incarceration on Family Life. *The Annals of the American Academy of Political and Social Science, 665*, 231-240. Retrieved July 17, 2020, from www.jstor.org/stable/24756101

Roman, C. G., Klein, H. J., & Wolff, K. T. (2018). Quasi-experimental designs for community-level public health violence reduction interventions: A case study in the challenges of selecting the counterfactual. *Journal of Experimental Criminology*, *14*(2), 155–185. https://doi.org/10.1007/s11292-017-9308-0

Roman, C. G., Decker, S. H., & Pyrooz, D. C. (2017). Leveraging the pushes and pulls of gang disengagement to improve gang intervention: Findings from three multi-site studies and a review of relevant gang programs. Journal of Crime and Justice, 40(3), 316–336. https://doi.org/10.1080/0735648X.2017.1345096

Saskatoon Starphoenix. (2019, August 10). *Province seeks provider for intervention model aimed at helping people in gangs*. Retrieved September 3, 2020, from https://thestarphoenix.com/news/local-news/provincial-gang-strategy-update

Schnittker, J., Uggen, C., Shannon, S., & Mcelrath, S. (2015). The Institutional Effects of Incarceration: Spillovers From Criminal Justice to Health Care. *The Milbank Quarterly, 93*(3), 516-560. Retrieved July 17, 2020, from www.jstor.org/stable/24616405

Schoenwald, S.K., Ward, D.M., Henggeler, S.W., & Rowland, M.D. (2000). Multisystemic therapy versus hospitalization for crisis stabilization of youth: Placement outcomes 4 months postreferral. Mental Health Services Research, 2, 3–12.

Skogan, W. G.; Hartnett, S. M.; Bump, N.; & Dubois, J. (2009). Evaluation of CeaseFire-Chicago. Retrieved October 8, 2020 from https://1vp6u534z5kr2qmr0w11t7ub-wpengine.netdna-ssl.com/wp-content/uploads/2019/09/Skogan-2009-Eval.pdf

Stewart, L., & Wilton, G (2019). *A comprehensive study of recidivism rates among Canadian federal offenders*. Ottawa: Corrections Service Canada. https://www.csc-scc.gc.ca/005/008/092/err-19-02-en.pdf

Stuit, J. (2018). Project BUILD Report. Retrieved September 23, 2020 from https://www.dconc.gov/home/showdocument?id=25402

Sutphen, R.D., Thyer, B.A., & Kurtz, P.D. (1995). Multisystemic treatment of high-risk juvenile offenders. International Journal of Offender Therapy and Comparative Criminology, 39, 329–334.

STR8 UP Inc. (2020). *STR8 UP Annual Report 2019/20*. Retrieved October 16, 2020 from https://www.str8-up.ca/wp-content/uploads/2020/09/Str8-Up-Annual-Report-2019-Final.pdf

Theriot, M. T., & Parke, B. "Sunshine." (2008). Native American Youth Gangs. Journal of Ethnicity in Criminal Justice, 5(4), 83–97. https://doi.org/10.1300/J222v05n04_04

Tremblay, A.C.; Herz, D. C.; Zachery, R. & Kraus, M. (2020). The City of Los Angeles Mayor's Office of Gang Reduction And Youth Development (GRYD) Comprehensive Strategy. GRYD Research & Evaluation Brief No. 1. Retrieved September 22, 2020. https://www.juvenilejusticeresearch.com/sites/default/files/2020-08/GRYD%20Brief%201_GRYD%20Comprehensive%20Strategy_6.2020.pdf

Totten, M. (2009). Aboriginal Youth and Violent Gang Involvement in Canada: Quality Prevention Strategies. *IPC Review* 3: 135-156.

Totten, M; & Dunn, S. (2011). Final Evaluation Report for the North Central Community Association Regina Anti-Gang Services Project. Retrieved September 29, 2020 from http://www.nccaregina.ca/wp-content/uploads/2011/11/RAGS_YGPF_Final_Evaluation_Report_Totten_March_24_2011.pdf

Totten, M., & Dunn, S. (2012). Final Evaluation Report for the Prince Albert Outreach Program Inc. Youth Alliance Against Gang Violence Project. Final Evaluation Report. Submitted to the National Crime Prevention Centre, Public Safety Canada. Available from: http://www.tottenandassociates.ca/

Wiebush, R.G., McNulty, B., & Le, T. (2000). Implementation of the Intensive Community-based Aftercare Program. Washington, DC: Office of Juvenile Justice and Delinquency Prevention, Office of Justice Programs, U.S. Department of Justice.

Appendix A: Ethics Approval

UNIVERSITY OF SASKATCHEWAN

To: Lisa Jewell

Date: 12 June 2020

Re: Exemption Request

Thank you for submitting your request regarding the project entitled *"Cost Analysis of STR8 UP"*. The application meets the requirements for exemption status as per **Article 2.5 of the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans – TCPS 2 (2018)**, which states "*Quality assurance and quality improvement studies, program evaluation activities, and performance reviews, or testing within normal educational requirements when used exclusively for assessment, management or improvement purposes, do not constitute research for the purposes of this Policy, and do not fall within the scope of REB review.*"

It should be noted that though your project is exempt of ethics review, your project should be conducted in an ethical manner (i.e. in accordance with the information that you submitted). It should also be noted that any deviation from the original methodology and/or research question should be brought to the attention of the Behavioural Research Ethics Board for further review.

Please revise any consent forms to reflect an exemption from the REB or delete the sections regarding REB approval.

Digitally Approved by Patricia Simonson, Vice-Chair
Behavioural Research Ethics Board
University of Saskatchewan

Appendix B: Cost Estimates by Offense Category (Gabor, 2015)

	Cost Category	Mean Cost	Mean Cost (Outliers Removed)	Median Cost	Minimum Cost	Maximum Cost
Homicide	Victims' Tangible/Direct	$1,502,070	$1,222,127	$1,412,786	$81,679	$5,162,011
	Victims' Intangible	$3,827,153	$3,038,839	$3,439,939	$603,328	$10,204,237
	CJS Costs	$398,664	$399,583	$371,514	$56,371	$738,200
	Criminal Career	$176,469	$176,469	$176,469	$173,373	$179,565
	Total Cost	**$5,904,357**	**$4,837,018**	**$5,400,708**	**$914,751**	**$16,284,013**
Sexual assault / rape	Victims' Tangible/Direct	$45,469	$25,546	$10,610	$434	$329,583
	Victims' Intangible	$92,397	$86,593	$104,504	$1,517	$241,317
	CJS Costs	$15,416	$13,098	$13,098	$3,462	$32,006
	Criminal Career Costs*	$11,135	$11,135	$11,135	$11,135	$11,135
	Total	**$164,417**	**$136,372**	**$139,347**	**$16,548**	**$614,040**
Assault	Victims' Tangible/Direct	$80,009	$40,003	$2,792	$77	$359,976
	Victims' Intangible	$119,165	$14,503	$11,902	$615	$970,348
	CJS Costs	$4,381	$4,381	$4,381	$692	$8,071
	Criminal Career / no data					
	Total*	**$203,555**	**$58,886**	**$19,075**	**$1,384**	**$1,338,395**
Aggravated assault	Victims' Tangible/Direct	$51,273	$10,125	$10,510	$2,075	$306,203
	Victims' Intangible	$96,820	$73,700	$90,004	$14,457	$248,545
	CJS Costs	$15,399	$12,551	$10,489	$6,032	$33,310
	Criminal Career Costs	$3,980	$2,570	$2,570	$1,443	$7,926
	Total	**$167,472**	**$98,945**	**$113,573**	**$24,007**	**$595,984**
Robbery	Victims' Tangible/Direct	$66,975	$5,706	$4,065	$1,029	$623,072
	Victims' Intangible	$12,426	$11,991	$10,445	$1,040	$27,287
	CJS Costs	$9,386	$9,371	$8,593	$624	$18,204
	Criminal Career Costs	$3,564	$4,953	$4,953	$1,964	$5,164
	Total	**$92,350**	**$32,022**	**$28,056**	**$4,658**	**$673,727**
Motor vehicle theft	Victims' Tangible/Direct	$6,676	$6,319	$6,847	$657	$14,840
	Victims' Intangible	$1,068	$553	$553	$317	$2,346
	CJS Costs	$1,458	$846	$805	$77	$4,674
	Criminal Career Costs	$439	$439	$439	$210	$668
	Total	**$9,641**	**$8,157**	**$8,644**	**$1,260**	**$22,528**
Arson	Victims' Tangible/Direct	$24,481	$24,481	$24,481	$13,843	$35,120
	Victims' Intangible	$19,311	$15,462	$15,462	$6,204	$32,418
	CJS Costs	$5,309	$5,309	$5,309	$5,309	$5,309
	Criminal Career Costs	$706	$706	$706	$706	$706
	Total	**$49,807**	**$45,958**	**$45,958**	**$26,062**	**$73,553**
Burglary	Victims' Tangible/Direct	$1,857	$1,892	$1,981	$306	$3,235
	Victims' Intangible	$888	$786	$671	$388	$1,898
	CJS Costs	$2,659	$2,427	$2,579	$1,256	$4,989
	Criminal Career Costs	$825	$823	$823	$412	$823
	Total	**$6,228**	**$5,928**	**$6,054**	**$2,361**	**$10,945**
Theft	Victims' Tangible/Direct	$1,200	$444	$483	$87	$6,846
	Victims' Intangible	$113	$113	$113	$12	$215
	CJS Costs	$1,182	$732	$594	$231	$3,480
	Criminal Career Costs	$140	$140	$140	$83	$197
	Total	**$2,627**	**$1,430**	**$1,330**	**$413**	**$10,738**

	Cost Category	Mean Cost	Mean Cost (Outliers Removed)	Median Cost	Minimum Cost	Maximum Cost
Fraud	Victims' Tangible/Direct	$40,848	$40,848	$40,848	$4,154	$77,543
	Victims' Intangible / no data					
	CJS Costs	$3,384	$3,384	$3,384	$1,484	$5,285
	Criminal Career Costs	$798	$798	$798	$798	$798
	Total	**$45,030**	**$45,030**	**$45,030**	**$6,436**	**$83,625**
Any offense type (excluding homicide)	Victims' Tangible/Direct	$35,421	$17,263	$11,402	$2,518	$195,158
	Victims' Intangible / no data	$38,021	$22,633	$25,962	$2,728	$169,375
	CJS Costs	$6,508	$5,789	$5,470	$2,130	$12,814
	Criminal Career Costs	$2,398	$2,396	$2,396	$1,861	$3,046
	total / other crime	**$82,348**	**$48,081**	**$45,230**	**$9,237**	**$380,393**

Note. All figures quoted in August 1, 2014 Canadian Dollars. Any offense type computed by averaging the cost of the other offense categories, excluding homicide. This decision was made because of (1) how rare homicides occur compared to other crime categories; and (2) the wide discrepancy in costs between homicide vs. other crime categories.

Source: Gabor, T. (2015). Costs of crime and criminal justice responses. Public Safety Canada.