

# Addressing Youth Cannabis Use in Greenland

Identifying Evidence-Based Interventions and Delivery Strategies



Presented to Allorfik and  
the Ministry of Health in Greenland

PRS Policy Brief 1718-19  
September 6, 2018



Dartmouth Global Health Policy Lab  
The Class of 1964 Policy Research Shop  
The Global Health Initiative at the Dickey Center for International Understanding



DARTMOUTH



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## ACKNOWLEDGMENTS

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This research was made possible through a collaboration between the Ministry of Health in Greenland, Allorfik, the Nelson A. Rockefeller Center for Public Policy and the Social Sciences, and the Global Health Initiative at the John Sloan Dickey Center for International Understanding at Dartmouth College.

This project was supported by funding from The Dickey and Rockefeller Centers at Dartmouth College. The project also benefitted substantially from ongoing guidance provided by Anne Sosin and Dr. Ronald Shaiko, and the critical assistance of Ulunnguaq Markussen, who was essential for secondary research and coordinating, translating, and conducting interviews in Greenland. We would like to thank Allorfik and the University of Greenland for their welcome and accommodation while we conducted our study. We also extend our thanks to the medical professionals, administrators, policymakers, psychotherapists, social workers, counselors, police officers, and other stakeholders who volunteered their time to participate in interviews. Finally, we thank the Ministry of Health and Allorfik for considering these recommendations to inform evidence-based policymaking with regards to addressing youth cannabis use in Greenland.

*This report was written by undergraduate students at Dartmouth College under the direction of professors in the Rockefeller Center. The project was a collaboration between the Rockefeller Center and the Global Health Initiative at the Dickey Center for International Understanding, the project funder.*

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# EXECUTIVE SUMMARY

Greenland has one of the highest rates of cannabis use in the world. Moreover, cannabis use amongst Greenland's youth population has emerged as one of the nation's largest public health concerns. In 2002, 44.1 percent of male and 47 percent of female Greenlandic 15-year-olds had used cannabis. Evidence indicates these percentages have only increased in recent years.

The government agency Allorfik has developed treatment programs for adult substance abuse, but a treatment gap remains for youth-specific interventions. Allorfik commissioned this project to explore service delivery models that could be effective in combatting youth cannabis use in Greenland. Accordingly, this report provides background information on adolescent substance use in Greenland and then examines a series of substance abuse treatment service delivery strategies relevant to the Greenlandic context.

The four service delivery models considered in this report are task-shifting, collaborative care, community mobile treatment, and telehealth, all of which have been implemented in a variety of remote, low-resource settings. For each of these four strategies, two case studies are presented. Based on an analysis of the benefits and limitations of these four strategies as well as the current resources available in Greenland, this report identifies specific programmatic elements that are options for implementation. This analysis will inform decision-making by Allorfik and the Ministry of Health with regards to initiating adolescent substance abuse treatment in Greenland.

## 1. PURPOSE STATEMENT

This research project is guided by four primary questions. First, what is the context of adolescent cannabis use in Greenland? Second, what are the current resources available for treatment? Third, what insights on substance abuse treatment can be gained from key stakeholders in Greenland? Fourth, what service delivery strategies have been implemented to treat substance abuse in similar populations and what are the benefits and limitations of these strategies in the Greenlandic context?

Each of these questions are answered in turn in sections 2, 3, 5, and 6. Section 2 describes the scope of youth cannabis use in Greenland as well as current challenges in implementing treatment. Section 3 delineates the current resources available to address substance abuse. Using the methodology described in section 4, section 5 describes stakeholder perspectives and section 6 identifies and examines four specific service delivery strategies, presents relevant case studies of interventions, and analyzes the pros and cons of each model. Overall, the information presented in this report will inform the development of a national strategy to intervene in youth cannabis use in Greenland.

## 2. LANDSCAPE ANALYSIS

Greenland has a population of 56,000 which is distributed amongst 17 towns and 60 villages. While Nuuk, the capital, is the largest city with 15,000 people, nearly 20 percent of the population lives in villages with populations ranging from three to 500 people. As of January of 2018, Greenland is divided into five municipalities that are responsible for funding and delivering services within their respective jurisdictions. This

report reflects data gathered from research sites in Nuuk, Qaqortoq and Narsaq. These regions have unique cultures and landscapes of cannabis use; many interviewees refer to various regions within Greenland (North, East, South, and near Nuuk) to exemplify differences in cultural activities, amount of Danish spoken, and number of educated professionals centralized in each region. Legislation addressing social services and therapeutic interventions for children is actively being remodeled. The Children's Act was enacted on July 1<sup>st</sup> of 2017 and is a reorganization of legislation passed in 2003. This law provides assistance for children with difficult home or social circumstances.

## **SCOPE OF YOUTH CANNABIS ABUSE IN GREENLAND**

The scope of cannabis use, and of cannabis use disorder in particular, is difficult to define. However, Allorfik plans to utilize the Addiction Severity Index at the start and end of treatment as well as the Health-Behavior in School-aged Children (HBSC) survey as an indicator of effective interventions. A report on child health in Greenland revealed that nearly 40 percent of Central and Southern Greenlandic 15-year-olds had tried marijuana and that 80 percent had been drunk at least once. Police interviews reveal that crime has not decreased and that robberies are increasing in frequency, likely in order to obtain money to purchase marijuana. According to police, marijuana users are beginning use at earlier ages and marijuana-related violence is increasing. Overall, the caseload for treating those with cannabis use disorder is also increasing.

Interviewees observe hindered emotional development in adolescents who begin marijuana use at an early age, a harmful side effect that leads to disruption in their school lives. Clinically evaluated effects of chronic cannabis use in youth support these observations.<sup>1</sup> A manifestation of cannabis use by youth has been described as a pervasive attitude of "Inuuneq taamaattussaannartut isigilernikuungaat," a colloquialism interpreted as "it is what it is," and a lack of desire to improve one's circumstances.<sup>2</sup> Some interviewees indicate that the settlements are major areas of teen cannabis use, while others say cities are the hub and marijuana use is spreading from the cities to smaller towns. Understanding this problem includes acknowledging its social, systemic causes. Comorbidities with other substances, parents who abuse substances, single parent homes, sexual abuse, physical abuse, neglect, lack of opportunities for young people, isolation, feelings of unworthiness, and financial stressors all play a role in constructing the landscape of substance abuse in Greenland. Due to these factors, many employees of social services see youth cannabis abuse as a form of self-medication.

It is believed that marijuana is supplied via boats from cities within Greenland or from smugglers bringing marijuana from Denmark or Iceland. There are attempts to monitor incoming supply with police officers and drug dogs in harbors, though the availability of these resources varies depending on the time of year and the location. Those over the age of 15 can be sent to court for marijuana offenses, though punishment can begin with a warning or fine. Jail time is also an option depending on the individual's intentions for the marijuana. Individuals under the age of 15 are referred to social services while parents are informed if someone under the age of 18 is caught with cannabis.

## **CONSTRAINTS OF IMPLEMENTING SUBSTANCE USE THERAPY FOR ADOLESCENTS**

One of the unique contextual constraints of delivering therapy in Greenland is a low population density that ranges from thousands of people in cities to fewer than one hundred in some settlements. This population dispersion has led to centralization of resources to the larger cities in Greenland, which includes centers that deliver substance abuse therapy. This centralization, however, increases the difficulty of delivering substance abuse care to smaller settlements. This problem is compounded by the shortage of mental health professionals in Greenland which further stretches resources that must be utilized to cover both larger populations in cities and smaller populations in more remote areas.

A second constraint is the trend of health professionals in Greenland leaving after two or three years in order to practice elsewhere, thereby creating a rapid turnover of health professionals. Often, these are Danish health professionals who return to practice in Denmark. A workforce of predominantly Danish health professionals

creates the additional problem of a language barrier, as many Danish providers do not speak Greenlandic. Although Greenlanders who live in larger towns and cities learn Danish in school, Greenlanders from smaller towns and settlements grow up speaking solely Greenlandic. This Danish-Greenlandic language barrier can be particularly difficult in interactions between a therapist and client, as trust and understanding are crucial. This language barrier could be circumvented by employing a greater number of Greenlandic providers; however, Greenland is currently experiencing a 'brain drain' of Greenlandic people who leave the country to pursue educational and career opportunities. These individuals might aspire to be health professionals within Greenland, but this requires educational programs in Denmark. Ultimately, some of these individuals may not return to Greenland to practice.

Outside of Nuuk, Greenland has limited internet availability which constrains the delivery of possible telehealth interventions. Efforts are underway to improve internet infrastructure throughout Greenland.

### 3. STATUS OF RELEVANT RESOURCES

Greenland has a host of infrastructural resources available to treat substance use in its population, including traditional and computerized health systems, addiction facilities, and social services. Although these resources do not offer youth-specific cannabis use treatment, substance use is addressed in a variety of ways, such as life skills education, drug use prevention, and foster care.

#### **HOSPITALS AND HEALTH STATIONS**

Each city in Greenland is equipped with a hospital, each town has a smaller hospital, and each settlement has a small health station. Hospitals and health stations have computer access with video capabilities. There is at least one health worker at each settlement who is closely connected to the hospital in the nearest town. These health workers have limited care capabilities. After undergoing training, one of their main duties is triaging which patients need further care and transportation to a hospital.

There is one Greenlandic hospital specifically for mental health. This hospital is located in Nuuk and it takes patients with psychiatric diagnoses who are not being treated in Children and Family Centers. The hospital is currently using telehealth interventions to reach Greenlanders who are too far away from Nuuk to receive treatment, and their newest program treats physical abusers for 10 weeks either in-person, via telephone, or over Skype.

#### **COMPUTERIZED HEALTH SYSTEMS**

Greenland is beginning to address the health care personnel shortage through Pipaluk, a computerized remote health system with internet and CD program capabilities. From 2008 to 2010, Pipaluk was implemented in every Greenlandic settlement with at least 50 people. Since its introduction, Pipaluk has reduced the number of unnecessary medical transports and increased access to care.<sup>3</sup> The Ejournal system is another telehealth intervention that helps connect patients to providers in almost every town in Greenland.

#### **ALLORFIK**

Allorfik, a substance abuse treatment organization under the Ministry of Health, was established in January of 2016 after branching from the Children and Family Centers. There are three Allorfik centers open currently. Each center employs three therapists and a secretary. Allorfik uses the Minnesota Model, along with Cognitive Behavioral Therapy and Motivational Interviewing, to treat patients. Usually, Allorfik provides a 17-week therapy that meets one to two times per week. At the beginning, therapy focuses on the patient's drug of choice

and their cravings, while later therapy sessions focus on concepts like relationships. Aftercare occurs once per week, implemented as a 26-week Cognitive Behavioral Therapy that focuses on craving strategies, emotional development, mindfulness, and life outside of substance use. Allorfik does not currently treat youth. Allorfik, in collaboration with Family Centers, is beginning to implement a series of mobile teams with psychotherapists and social workers that will be employed in different towns to deliver substance use therapies.

## **SOCIAL SERVICES**

Social services are offered at the municipality-level and consume close to half of municipality budgets. Although constrained by budgetary and personnel issues, many social workers are Greenlandic and thus have less turnover than health professionals. Employees feel that therapies are becoming more accessible and that trust for social institutions is growing in communities.

### THE DEPARTMENT OF CHILDREN AND FAMILIES

The Department of Children and Families works with youth that have experienced sexual abuse, physical abuse, socioeconomic disadvantage, or mental illness. The Department has therapy locations for adults that provide individual treatment, but there are no locations specifically for adolescents. Staff can arrange for teens to go to the adult therapy centers, but the staff is not trained for adolescent-specific therapies. The Department offers a host of preventative services, including: Timi Asimi, an extreme sports experience in nature; Orpigaq and Kaassassuk, which are two foster care and education programs; Youth Advice; and the Teen Age Power Program. In extreme cases, the Department can remove children from their homes and send them to Denmark or foster care. Doing so can be expensive and disruptive to a child's life. Additionally, if the youth is removed due to a marijuana addiction, this can have the unintended consequence of making the addiction worse.

### FAMILY CENTERS

Family Centers were created so that psychotherapists, family therapists, and advisors could provide counseling services for struggling families. The Centers cannot take active marijuana users, nor can they treat a family if a family member has an active addiction. Many of the cases involve women and children, and these cases can be referred from a variety of sources (police, schools, the health care system, etc.). The Family Centers utilize combined cognitive and psychodynamic counseling to learn about a family's daily life and assist with behavioral changes. Other Family Center services, such as festivals and events, combine Greenlandic culture, sober environments, and prevention information to provide youth with healthy activities. The Family Center also provides courses to help people build life skills and to help new parents and pregnant women learn how to take care of their children.

### CHILDREN'S HOMES

Greenland has 22 Children's Homes to care for children who are removed from their homes and are unable to be placed in foster care. This step of placing children in the Children's Homes was often recognized as necessary though not ideal. These children are rarely returned to their parents. As an example, the home in Qaqortoq has a caseload of 18 kids from ages 13-18 and takes them to Iceland every year for outdoor activities. The home also tries to help the youth by finding job opportunities that allow them to explore their interests and normalize social interactions with adults.

### MISI

MISI is another arm of the social services that is closely connected to the school system. MISI is a counseling center that advises professionals who work with children under 18 years old. This organization advises these professionals on how to adapt services for children with special needs or difficult social circumstances. Professionals within MISI include psychologists and experts in teaching, social work, speech and language difficulties, audiology, educational anthropology, and child development. Cases are brought into their purview



via teachers reaching out for help or by physician referral. However, MISI does not take clients who receive psychological care outside of schools.

## 4. METHODOLOGY

A thorough literature review was conducted in order to identify existing programs and service delivery models relevant to the Greenlandic context. Findings from this literature review were supplemented with primary research in the form of interviews and focus groups with key stakeholders in Nuuk and South Greenland.

### **STAKEHOLDER INTERVIEWS**

The systemic nature of youth cannabis use in Greenland requires insight from multiple stakeholders who interact with youth in different capacities. For this reason, medical professionals, administrators within Allorfik, psychotherapists, social workers, police officers, and counselors in Nuuk, Qaqortoq and Narsaq were interviewed.

Interviews and focus groups were semi-structured. The first half of the research focused on case examples within the interviewee's area of expertise. The latter half of the research phase focused on emerging themes from the case-based interviews. Questions were pulled from a larger guided interview script. The goal of these interviews was to evaluate successful programmatic elements for youth cannabis treatment in the Greenlandic context. Interviews began with questions regarding the interviewee's interaction with Greenlandic youth in his or her field and then shifted to their understanding of the landscape of cannabis use and its root causes. The questions then proceeded to more specific case-based questions or questions targeting elements of programs. The police interview required a unique script, as this stakeholder was more knowledgeable about the supply of cannabis and punitive aspects of teen cannabis use as opposed to interventions. A total of ten interviews and four focus groups were completed over three weeks for this report. Representative questions utilized in the interview process are listed in Appendix A. The findings from this interview process are discussed in section 5.

### **LITERATURE REVIEW TO IDENTIFY RELEVANT MODELS AND CASE STUDIES**

The challenges that Greenland faces when it comes to the provision of substance abuse therapy to its adolescent population are not unique. Though Greenland is classified as a high-income country, similar resource and delivery constraints are often encountered in low- and middle-income countries with regards to providing mental, neurological, and substance abuse care to populations of various ages and ethnic groups. Therefore, rather than limiting our consideration to interventions targeting adolescent marijuana abuse in remote, circumpolar regions, this report expands the scope of the literature review to encompass interventions that target a range of mental health and substance abuse issues, take place in a larger variety of resource-poor settings, and include other age and ethnic groups besides adolescent and indigenous populations.

Electronic databases of PubMed, Cochrane Reviews, and Google Scholar were reviewed using a keyword searching technique. The search was designed to include all articles which met the following criteria: (1) the target population was remote, rural, and/or low- and middle-income; (2) the intervention described in the article addressed any mental, neurological, or substance abuse disorder; and (3) the intervention followed one of four service delivery models (task-shifting, collaborative care, community mobile treatment, and telehealth) identified as being relevant to the Greenlandic context. Only articles written in English were considered. In addition to the literature search results, articles were also found based on recommendations by mentors to the project and through the snowballing of references. These articles were also subject to the criteria listed above.

From the initial search results, articles were selected for inclusion as case studies in this report. The overall panel of case studies was curated to demonstrate how effective programs could be implemented in a wide-range of populations using various resource-levels and programmatic structures. The results of this literature review process are described in section 6.

## 5. STAKEHOLDER PERSPECTIVES

The following policy priorities emerged from the synthesis of qualitative interview and focus group data. These key findings represent areas of consensus amongst stakeholders from the Ministry of Health, the police, health providers, and employees within the social services sector who work with Greenlandic youth and have knowledge of youth cannabis use in Greenland.

### **MULTI-TIERED APPROACH**

Constraints to accessible substance use therapy in Greenland create a delivery environment that is difficult to navigate. A consistent message emerged that a single model or approach for intervention likely would not suffice for the whole of Greenland, as youth cannabis use is perceived as a multi-dimensional problem. Instead, a multi-tiered approach was deemed necessary to overcome the personnel shortage, the centralization of health workers, the low population density, the challenges of engaging youth, and the difficulties following up with adolescents that have received treatment. For example, focus groups provided positive feedback for a model of therapy from a case example, such as family therapy. Benefits and drawbacks were noted, then groups continued to add that the therapy would be incomplete without the option of group and individual therapy as needed. In addition, stakeholders acknowledged that different combinations of therapy would be suitable in different contexts. These interviews illustrated that no blanket model is applicable for nationwide implementation; instead, a combination of resources and intervention strategies was suggested to make substance abuse therapy accessible to youth throughout Greenland.

### **INTERSECTORAL COORDINATION**

Youth who use marijuana interact with multiple sectors of Greenlandic society. Stakeholders expressed the desire for these sectors to coordinate further to offer youth the best combination of prevention, treatment, and aftercare approaches. These sectors include the municipalities, the various departments of the social services sector (Family Centers, MISI, Children's Homes), Allorfik, the police, the school systems, and the health care system. While many collaborations do exist, especially in smaller towns, no consistent system is in place to coordinate services between multiple sectors.

For example, Allorfik currently collaborates with the municipality, police, and grocery stores to prevent substance abuse. Grocery stores have agreed to move alcohol displays away from the front of the store in Qaqortoq, and Allorfik is making efforts to persuade the government to ban the sale of alcohol on national Children's Day. Similar partnerships were mentioned as a way to enhance effectiveness of youth-specific therapies. Family Centers can take case referrals from police, schools, the health care system, etc., while MISI is primarily connected to the school system. Teachers, as well as doctors, contact MISI about children with special circumstances. Despite their strong coordination with the school system, MISI does not take children who receive psychological care outside of school. Stakeholders from these organizations discussed how knowledge of the progression of services in other sectors would enhance the ability to serve a given child. For example, one social service employee stated that the school system was behind on its ability to identify cases of children abused at home. This delayed referral, combined with backlog of cases at the institution, left many cases until it was too late to take action.<sup>4</sup>

## **CULTURAL RELEVANCE**

There was consensus amongst stakeholders that existing therapies be further adapted to Greenlandic culture. This sentiment was often expressed that one could not simply take a program from a country like Denmark and apply it directly to Greenland. While interviewees often struggled to characterize Greenlandic cultural identity, they felt that this loss of this identity contributes to substance abuse in the country. Further, many felt that recent shifts in gendered roles in society contribute to this culture gap and identity loss.

Many stakeholders agreed that therapies that utilize Danish create a language barrier as opposed to those that utilize Greenlandic. Some advised that therapies may also include relevant historical culture, such as the importance of surviving harsh winters, gathering Greenlandic foods, and being together. The core Greenlandic value of respect was discussed as integral for therapies in the Greenlandic context. Those who work with children in unstable families indicated that adults in the lives of neglected children fail to cultivate respect and trust as core values in their households. Thus, there was enthusiasm for trust and respect-building activities to strengthen therapies specific for youth. Additionally, therapies would be better accepted if they show youth the idea of a “good life.” While adults often are familiar with the benefits of sobriety, such as employment and independent living, young marijuana users require guidance for appreciating this “good life” because they are often unfamiliar with a reality outside of their own substance abuse.

Finally, there is a desire that culturally relevant activities be present to replace alcohol and marijuana use. In addition, these activities may help adolescents feel part of a larger community. Currently, after-school activities available to youth vary amongst municipalities and schools, which are the heart of many activities in the settlements. Activities like football and handball are usually available, but youth have left them in favor of hanging out in groups. This exacerbates marijuana use through social influence. To address this issue, culturally relevant activities such as activities in nature, kayaking, sports, sewing Greenlandic national costumes, seal hunting, swimming, skiing, running, and fishing can be incorporated within therapy regimens. Certain municipalities offer nature excursions for youth with substance use issues which help build character and allow the youth to see they are not alone in their problems. However, a variety of other activities were suggested in order to cater to different adolescents’ interests. For example, rap and other forms of music are alternate modes of expression for youth, while polka dancing in the South and drumming in the North and East of Greenland are common cultural activities.

## **GAP IN TEEN-SPECIFIC THERAPIES**

While Allorfik and other institutions have developed treatments for substance abuse in Greenlandic adults, delivery of youth-specific therapies remains underdeveloped.

## **UNIQUE NEEDS OF YOUTH WITH CANNABIS USE DISORDER**

Multiple stakeholders mentioned that strategies for treating youth for substance use disorders must differ from strategies used for treating adults. Using marijuana at young ages leads to what was described as a stall in emotional development. This stall may require additional care to help teens to understand what they feel and how to process their emotions. Additionally, youth problems resulting from cannabis abuse are encountered more commonly through school performance and truancy than through negative physical health findings. Youth who abuse cannabis were also noted to carry undue responsibility for their behavior if they came from families with parents that also had substance abuse problems or exhibited neglectful behavior. This feeling of responsibility can result in guilt, shame, anger, and a desire to protect the parents from social consequences. Interviewees note that these circumstances create the need for youth-specific interventions that allow children to reclaim childhood. Additionally, many agree that it is important to recognize that some children are not ready for therapy. Youth have less life experience and may not know what a “good life” looks like. Psychotherapists and health professionals mentioned the need to assist children in understanding what living without substances could be like. Another consideration for treating youth with substance use disorders that was discussed was using

“strong” community members to serve as role models. There was particular enthusiasm for these community members to be self-motivated towards change, serve as role models, and understand the challenges of recovery.

### GAP IN YOUTH-SPECIFIC THERAPY WITHIN EXISTING INSTITUTIONS

Though youth therapists agreed that it is better and easier to treat individuals when they are younger, current institutions in Greenland have a gap in capability to deliver youth-centered therapeutic methods. Youth specific interventions that do exist include removing children from negative family circumstances and placing them into Children’s Homes, as well as providing courses to improve life skills such as those offered by Children and Family Centers. While children can be referred to Allorfik for treatment, there is currently no consistent strategy for treating youth. Other institutions, such as the Department of Children and Families, have specific treatment centers for adults but not for adolescents.

### **SOCIETAL PROBLEMS REQUIRE SYSTEMIC THERAPY**

The prevalence of marijuana use among Greenlandic adolescents is not a stand-alone issue; there are a host of societal and structural factors that contribute to the use of marijuana in Greenland. Allorfik uses a labeled picture of an iceberg to describe some of these issues and referenced this diagram during interviews. The tip of the iceberg is labeled “marijuana use,” and the underwater portions of the iceberg are labeled “loneliness,” “sexual abuse,” “depression,” “violence,” and “anger.” One employee of the municipality spoke to the root causes of youth cannabis use, stating, “It’s not enough to just use [marijuana] treatment. You need combined treatment for substance use and for social problems.”<sup>5</sup>

A historically significant event that many speculate to be a contributing factor of substance abuse in Greenland was the removal of Greenlandic people from their homes as adolescents and subsequent placement into boarding schools in the 1950s. Often at these boarding schools, there was a lack of supervision and role models. This, as well as the disruption to home life in early adolescence, may have contributed to the prevalence of substance use in that generation of Greenlandic people. These negative habits can be and have been passed down to many children, especially if children come to believe that substance use is normal behavior. In some families, the parents and the children use marijuana together. In the past, it was more common for parents to use alcohol as their substance of choice; now, more youth are turning to marijuana. Though the drug of choice has changed, observers state that the societal problems have not.

Another societal force that may spur marijuana use for Greenlandic youth is a lack of opportunities for secondary education, jobs, and extracurricular enrichment. The opportunities that exist for Greenlandic youth are unevenly distributed throughout Greenland and can vary extensively depending on the town or settlement, as well as on the support of the municipality.

### **DECENTRALIZING THERAPY: YOUTH IN THEIR HOME ENVIRONMENT**

Adults who work with Greenlandic adolescents express that seeking treatment for substance abuse can be overwhelming for young people. Currently, youth are referred for therapy at institutions that use adult therapy models for substance abuse. In extreme cases, the Department of Children and Families can remove children from their homes and send them to Denmark to receive substance use treatment that is more specialized for youth. The process of sending an adolescent to Denmark is expensive for the Greenlandic government and disruptive to a child’s life. In addition, when a youth returns home from their treatment, they may return to the same family and community situations that led them into substance use in the first place. This can render a successful treatment ineffective.

### ROLE OF FAMILY THERAPY IN GREENLAND

Use of cannabis by Greenlandic youth is as much a social issue as it is an issue for individual users; many of these youth substance users come from unstable homes where family members may be substance users

themselves. Many Greenlandic teens do not seek treatment for their substance abuse; when seeking help, these teens talk about their problems in terms of their dysfunctional relationships with family and relatives. Even if individual therapies for cannabis cessation are successful, youth return to the same stressors once back in their home environments. Family therapy offers a way to address not only the substance use of an individual, but the family dynamics that may influence the use of cannabis in the first place. In addition, removing adolescents from their homes to receive therapy (e.g. to Nuuk or Denmark) is disruptive to their lives, and family therapy provides a method of treatment that may help bring a household closer together as opposed to creating distance between its members.

On the other hand, the delivery of family therapy in Greenland is constrained by the requirement for trained therapists, many of whom are located in larger cities like Nuuk and Qaqortoq. The current delivery of treatment by centralized professionals means entire families are burdened with commuting to the cities for treatment. Many families cannot afford to leave their homes for extended periods for risk of losing their jobs or being unable to pay for necessities. Despite these limitations, stakeholders expressed continued support for family therapy because it has the potential to change stressors, such as difficult family relationships or generational substance use, so that the environment surrounding a youth changes at the same that that the youth modifies their own substance use behaviors. In addition, the family therapy approach helps to keep children with their families, delaying removal of children from their homes until absolutely necessary. Youth substance users often feel lonely in their struggles, and social workers indicated that adolescents may feel better equipped to handle their problems when their parents are involved.

As a result, family therapy is a promising approach for treating youth who use cannabis in Greenland. Currently, social institutions in Greenland such as Family Centers attempt to deliver family therapies that generally address negative family dynamics that may contribute to substance use in adolescents. They often consist of sessions where a counselor or social worker establishes a relationship with family members and assists parents in developing strategies to change negative interaction patterns and improve the home environment. Other institutions such as MISI seek to foster collaboration between families and community systems such as schools, peers and the local municipality, in order to accommodate the special needs of the family. Overall, however, interventions that directly treat cannabis use specifically in youth are mostly absent in Greenlandic institutions.

#### ROLE OF GROUP THERAPY IN GREENLAND

An alternative method of delivering youth-specific therapy is through group therapy. Group therapy is currently an established mode of treatment for adults dealing with substance use in Greenland. Allorfik delivers group therapy using the Minnesota Model as one of its approaches for treating substance use. Other group interventions include weekly support groups for partners of marijuana-using adults. However, these group therapies are not always appropriate for youth, and youth-specific group therapies are generally unavailable in Greenland.

Group therapy would be beneficial in the Greenlandic context as a group can be run by a cultural and/or community leader in rural Greenlandic areas after training in a peer recovery model. Facilitators can include teachers, guidance counselors, health professionals, or other nonsmokers who have experience with adolescents, thus reducing the demand on already limited professional health services in more remote areas of Greenland. Weekly meetings could be held in a central location, perhaps a school building, so that youth from surrounding towns could participate in sessions led by the facilitator. Group therapy could also extend beyond adolescents with cannabis abuse disorder to adolescents with any substance use disorder, making delivery of therapy more efficient. However, peer recovery groups may face the challenge of transporting youth to sessions because the target cannabis-using population in Greenland is geographically dispersed. If possible, group therapy could be coordinated between several towns, while local groups would be managed in more remote locations where travel is untenable.

In addition, a cultural leader or other facilitator play a key role in group therapy. These individuals would be required to devote time to this initiative and generate community buy-in to the program. This may be difficult if

cultural leaders do not agree that youth cannabis use is where limited community resources should be devoted, or if they do not have time for this commitment.

## **ENGAGEMENT AND AFTERCARE: NEED FOR A CONTINUUM OF TREATMENT PHASES**

Many sources agreed that constructing an intervention for Greenlandic youth substance use requires a multi-phasic approach rather than just a therapy phase. This multi-phasic approach would include a pre-therapy (engagement), therapy, and post-therapy (aftercare) component. The engagement phase involves connecting with youth and creating programs to make services more readily accessible by prospective patients. The aftercare phase primarily focuses on follow-up and relapse prevention. By utilizing effective engagement and aftercare protocols, more Greenlandic adolescents can be recruited into interventions with a lower likelihood of relapse into substance abuse. These two elements create a continuum of care for patients that encompasses all stages of substance use recovery.

Limitations for offering engagement in the Greenlandic context vary depending upon what type of treatment is offered. Generally, these barriers include transportation, connection to cultural identity, personal histories, and a lack of trust.<sup>6</sup> Continuing care and follow-up after therapy are also constrained by factors common to therapy delivery in Greenland. These include low population density, a shortage of specialists, and language and cultural barriers.

### YOUTH ENGAGEMENT TO INITIATE THERAPY

Engagement, which precedes therapeutic intervention, was mentioned as an area of interest. This outreach is especially applicable to teens with substance use disorder; Greenlandic teens, according to workers in the field of substance therapy, do not seek help for substance abuse issues. Instead, it is more common for youth to seek help for problems with relationships or family, even if they are suffering from a substance use disorder. Although many teens are identified by social workers or other adults as having substance use problems and are referred for care, this is not a sufficient strategy for youth engagement. Referrals may not capture all cases of teen cannabis abuse that could benefit from therapy, such as those where individuals have the motivation to receive treatment but do not know where to receive help.

Allorfik's current engagement strategies focus on normalizing the idea of receiving treatment. One example is that every other week Allorfik will hold an open house with baked goods to create a warm environment where people can stop in and feel welcomed. In addition, Allorfik collaborates with adult clients and social workers to create a contract for care and behavioral changes after therapy that evolves throughout the process of receiving treatment. This promotes the idea of change coming from the clients rather than the therapists. Akilliit, the Children's Home, engages youth in the group over extended periods of time by patiently getting to know the children. Akilliit staff have reconstructed the Home and paid the youth to help them with the work. This helps to engage older adolescents that had not previously shown motivation for consistent work within the group. Other psychotherapists that work with youth utilize Motivational Interviewing (MI) techniques to help youth understand the difference between their present lives and the "good life" they want to lead.

Literature-based knowledge surrounding youth engagement is a growing area of development, though blanket strategies for this piece of therapy are difficult to identify. Greenlandic youth do use social media, especially Facebook, and engagement efforts might utilize these platforms to advertise to and recruit participants. In addition, the concepts of empowerment, trust, and respect, values important for successful engagement strategies, reflect the ideals of Greenlandic culture expressed by stakeholders.<sup>7</sup> While numerous stakeholders call for the need for aftercare when treating youth for substance use disorders, the specifics on how to deliver these services varied depending upon the program. Opportunities for aftercare in Greenland include Pipaluk and Skype delivery systems; these exist both in settlements and larger towns.

### AFTERCARE AND FOLLOW-UP AFTER INTERVENTION

Though many people mentioned aftercare as a vital element within a national strategy for providing substance use treatment to adolescents, few stakeholders generated specifics on what form this phase of intervention should take. The need for consistent follow-up with youth was emphasized as a way to prevent them from feeling abandoned and subsequently returning to their previous behaviors. Feedback was positive for aftercare as a way to make care more longitudinal in order to sustain behavioral changes. However, this phase could be less intensive than the treatment phase. Current strategies for aftercare exist for adult clients through Allorfik delivery with telehealth capabilities for remote patients.

## 6. EXTENDING CARE TO REMOTE COMMUNITIES

When therapy is implemented in larger cities like Nuuk, current delivery methods, such as the use of Allorfik centers and Family Centers, will likely form a strong foundation for new programs. However, economic, social, and logistical constraints make similar centralized therapy models infeasible for remotely located Greenlandic people. Accordingly, the following literature review examines alternative evidence-based delivery methods and representative case studies in order to develop service delivery policy options for the consideration of policymakers in Greenland.

Interventions discussed in this part of the report have been grouped into four broad classes: task-shifting, collaborative care, community mobile treatment, and telehealth. Accordingly, this part of the report is divided into four sections, one for each service delivery model. Key questions addressed for each delivery model include: What is the model and how does it work? How has the model been implemented successfully elsewhere? What is the relevance and applicability of the model to the Greenlandic context?

It is important to note that though each intervention discussed in this section has been classed into one of four categories, most of these interventions combine elements from two or more of these four service delivery models. Accordingly, these service delivery models can often be thought of as complementary rather than mutually exclusive.

### **TASK SHIFTING**

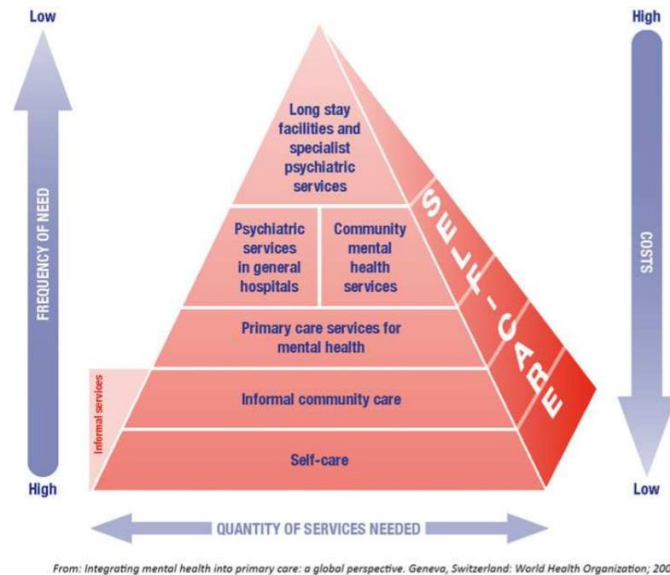
Task shifting (or task sharing) refers to any service delivery model that involves the redistribution of health care tasks from highly-trained to less highly-trained workers in order to optimize available human resources, increase health care coverage, and increase workforce capacity.<sup>8</sup> Under task shifting systems, a small number of specialists can be used to teach non-specialist providers and community members to lead and deliver interventions to underserved populations. Accordingly, the role of the mental health specialist “shifts from direct service provider toward trainer, supervisor and consultant” whereas the trained non-specialist providers and community members are empowered to work largely independently.<sup>9</sup> Task-shifting can be utilized to deliver a wide range of therapies. Moreover, elements of task-shifting can be employed within other service delivery models, including those discussed in later sections of this report such as collaborative care.

Task-shifting as a service delivery strategy has been employed in various resource-constrained settings to deliver diverse types of health care. In some forms of task shifting, lower cadres, such as community health workers, are trained to provide a new form of care. Other models train community members or lay workers to deliver components of a therapeutic model. Currently in Greenland, several different institutions serve families and individuals with substance use problems using employees with varying levels of medical training. However, task shifting to community members is not coordinated on a larger scale in various towns across the country. Greenland’s extreme workforce constraints make task shifting an important strategy to consider.

## BACKGROUND

In situations where people with mental, neurological, and substance-abuse (MNS) disorders do not receive necessary levels of care because of a lack of adequate numbers of mental health professionals, non-specialist health workers and other professionals with health roles can play a key role in filling the gap.<sup>10</sup> This process of task-shifting allows low-resource countries to better approximate the World Health Organization's pyramid for the optimal mix of mental health services as seen in the following figure.

**Figure 1: WHO Service Organization Pyramid for Optimal Mix of Services for Mental Health<sup>11</sup>**



In addition, a shift towards interventions relying on a greater utilization of non-specialist health workers and other professionals with health roles can be cost-effective given that these cadres of workers are more numerous and affordable than specialists. Research suggests that interventions relying on these cadres of workers to deliver MNS care are at least as effective and acceptable as those interventions that are delivered by specialists.<sup>12</sup>

Non-specialist health workers (NSHWs) are health workers that did not received specialized professional training in MNS disorders. Cadres of workers classified as NSHWs include doctors, nurses, and lay health workers in addition to allied health personnel such as occupational therapists and social workers. NSHWs do not include professional specialist workers in MNS disorders such as psychiatrists, neurologists, psychiatric nurses, or mental health social workers.<sup>13</sup>

Because adolescents and young adults tend to have low contact with health workers, other professionals with health roles (OPHRs) are an additional human resource that can be utilized to promote and deliver MNS care. Cadres of workers classified as OPHRs include teachers, trainers, and support workers in schools and colleges as well as leaders of youth organizations, volunteers, and workers in community-based or non-governmental organizations.<sup>14</sup>

NSHWs and OPHRs can deliver care in various settings and can be trained to perform various health tasks within MNS interventions. For instance, these workers have been utilized to deliver services within governmental, non-governmental, and private organizations and have had responsibilities that include detecting, diagnosing, treating, and preventing common and severe MNS disorders based on their level of training.<sup>15</sup>



Researchers from the Cochrane Collaboration undertook a review of the efficacy of interventions for MNS disorders delivered by NSHWs and OPHRs in low- and middle-income countries. Through their literature search they identified 38 studies conducted in 22 countries that were published prior to October 2012. Though many of the interventions included in their analysis are not specific to substance abuse, the task-shifting strategies utilized remain relevant to the Greenlandic context. From the selected studies, the researchers performed a series of meta-analyses and found that the use of non-specialist health workers as compared with usual health care services:<sup>16</sup>

- “may increase the number of adults who recover from depression or anxiety (or both) two to six months after treatment (low-quality evidence)”
- “may slightly reduce symptoms for mothers with depression (low-quality evidence)”
- “may slightly reduce the symptoms of adults with post-traumatic stress disorder (non-specialists and teachers were used in one study) (low-quality evidence)”
- “probably slightly improves the symptoms of people with dementia (moderate-quality evidence)”
- “probably improves/slightly improves the mental well-being, burden and distress of carers of people with dementia (moderate-quality evidence)”
- “may decrease the quantity of alcohol consumed by problem drinkers (low-quality evidence)”

However, the researchers did not find enough evidence to form conclusions about the cost-effectiveness and unintended consequences of utilizing NSHWs or OPHRs or their effectiveness for people with other MNS conditions of interest such as cannabis use problems.<sup>17</sup> Overall, the researchers concluded that though the above meta-analysis results indicate potential benefits of using NSHWs and OPHRs to deliver MNS interventions, the evidence is of low quality in certain areas and for some areas there was no evidence at all. This indicates that further research will likely impact confidence in their estimates of the effect of these interventions and will likely change the estimates as well. Of relevance to this project, the Cochrane Collaboration researchers classified the evidence on alcohol abuse as low quality and noted that the single drug abuse study they identified had a high risk of bias in several aspects of its design.<sup>18</sup> Since the Cochrane review was published, however, there has been much additional research on the subject of MNS care provided by NSHWs and OPHRs. From this research, two case studies relevant to the Greenlandic context were selected for presentation in the following section of this report.

#### CASE STUDY #1: ALASKA’S BEHAVIORAL HEALTH AIDE PROGRAM

The Alaska Tribal Health System created the Behavioral Health Aide (BHA) Program to provide culturally-relevant, community-based health and wellness services to Alaska Native people living in rural areas where there is limited access to behavioral health care services.<sup>19</sup> In these rural areas, BHAs integrate their behavioral health training with a sensitivity to cultural needs in order to serve as advocates, health educators, and counselors at the individual, family, and community levels.<sup>20</sup>

BHAs are typically village-based, meaning they live and work in remote regions.<sup>21</sup> Many BHAs remain in their own village to work year-round, whereas others are itinerant workers who visit several villages during the year.<sup>22</sup> All BHA-provided services are performed under the supervision of a licensed clinician, though BHAs typically communicate with their supervisors via email, telephone, video conferencing, and some in-person visits given the fact that BHAs reside and work in remote areas.

The Alaska Community Health Aide Program oversees the BHA Program. Employees of the Indian Health Service and Tribal Health Organizations that have a Community Health Aide Program are eligible to become certified BHAs.<sup>23</sup> Individuals seeking to become BHAs can become certified by attending programs and courses offered by the Alaska Native Tribal health Consortium, the University of Alaska Fairbanks, and the Regional Alcohol and Drug Abuse Counselor Training program. In addition to training and certifying new BHAs, the BHA Program provides education and assistance to current BHAs as well as their clinical supervisors and directors. The BHA program also offers support to partners seeking to incorporate BHAs into their community-based or primary care services.<sup>24</sup>

The BHA Program is a multi-level provider model where Aides can be certified at BHA levels I, II, III, and Practitioner. Aides certified at the BHA-I and BHA-II levels primarily act as community educators on topics such as alcohol, drug, and tobacco abuse in addition to mental health and behavioral problems such as depression, grief, domestic violence, suicide, accident prevention, and related issues. Aides certified at the BHA-III level and Behavioral Health Practitioners are equipped to provide an expanded range of services including substance use assessments and treatments in addition to crisis stabilization and management. These BHA-III Aides and Practitioners also serve as mentors for BHAs certified at lower levels. BHAs certified at all levels are familiar with different types of treatments as well as local and state resources so that they are able refer individuals to any necessary outside services.<sup>25</sup> Overall, the BHA program is structured to provide comprehensive behavioral health care services to Alaska Native populations in remote areas. Policymakers in Greenland can look to the BHA program as an example of an intervention that can deliver care for substance abuse as well as other mental health conditions.

## CASE STUDY #2: WHO MENTAL HEALTH GAP ACTION PROGRAM INTERVENTION GUIDE

To address the growing unmet need for mental, neurological, and substance abuse care in low-and middle-income countries, the WHO launched its Mental Health Gap Action Program (mhGAP) in 2008 and the corresponding Intervention Guide (mhGAP-IG) for nonspecialized health settings in 2010.<sup>26</sup> The mhGAP-IG is a simple technical tool that supports the integrated management of priority MNS conditions. It provides clear, evidence-based protocols for clinical-decision making in accordance with mhGAP guidelines.<sup>27</sup>

The mhGAP-IG is targeted towards non-specialist health workers at the primary and secondary care levels. The protocols can be implemented primarily by non-specialists, though specialists can aid in training, supervision, and support in addition to providing consultations and referrals.<sup>28</sup> Since its release in 2010, the mhGAP-IG has also been used by academic centers, ministries of health, and NGOs to scale up mental health services.<sup>29</sup> Based on feedback from the field as well as updated evidence, Version 2.0 of the mhGAP-IG was published in 2016 in paper, electronic, and mobile application forms.<sup>30</sup>

The mhGAP priority conditions include depression, psychoses, epilepsy, dementia, self-harm/suicide, disorders due to substance use, and mental and behavioral disorders in children and adolescents.<sup>31</sup> The mhGAP-IG contains modules on how to assess, manage, and follow-up with patients suffering from each of these conditions.<sup>32</sup> Each module is targeted to a specific condition and contains a description of that condition, a flowchart assessment framework, guidelines on pharmacological and psychosocial interventions, and instructions on how to continue the clinical relationship and manage care in the future. Though the mhGAP-IG contains several modules, users of the mhGAP-IG can select a subset to implement based on resource availability and the disease burden of the local region.<sup>33</sup> To assist in the implementation process, mhGAP also provides training manuals for trainers, supervisors, and health care providers as well as an operations manual that provides guidance on how health planners, policymakers, and managers can prepare, implement, monitor and evaluate their mhGAP programs.<sup>34</sup>

The mhGAP-IG has been translated into over 20 languages and used in over 90 countries around the world.<sup>35</sup> A 2017 review article identified 33 studies in the literature documenting the use of the mhGAP-IG for training, clinical practice, local adaptation, economic modelling, a control intervention in a randomized controlled trial, and as a model to develop a competency rating scale.<sup>36</sup> This demonstrated flexibility of the mhGAP-IG makes it an important tool to consider for Greenland.

## APPLICABILITY TO GREENLAND

The Behavioral Health Aide Program is a relevant to the Greenlandic context because it targets a similar rural, indigenous population. Furthermore, the program not only includes substance abuse care, but also provides a more comprehensive set of behavioral health and wellness services which impact broader factors that may contribute to substance abuse. The need for this type of systemic approach which addresses substance abuse in concert with social issues was emphasized by the stakeholders interviewed for this project. In addition, BHAs

are trained to serve within their own villages and communities. If this strategy were utilized in Greenland, it would help to overcome the language and cultural barriers that are currently prevalent in Greenland's mental health services. However, in order to institute a similar program, the Ministry of Health would need to invest in developing structured training, certification, and supervisory programs as well as identify suitable candidates for BHA training. Though this implementation process could be modelled on the program in Alaska, the resource level needed to develop such a program would remain significant.

While the mhGAP-IG is not specific to rural, indigenous populations, evidence illustrates that it can be adapted to diverse settings. If the mhGAP program were to be implemented in Greenland, mental health professionals working within Greenland's social services sector could translate the protocols into Greenlandic and adapt the program structure and content to Greenland's cultural context. These specialists could also work with organizations such as Allorfik and Family Centers to train NSHWs and OPHRs to deliver therapy. Though the mhGAP-IG contains protocols for several of the most prevalent mental health disorders, Greenland could tailor its program based on the adolescent mental health and substance abuse modules. This approach would likely be less resource intensive than a BHA-style program given that the framework for implementing an mhGAP-based program is freely available from the WHO. However, one drawback of an mhGAP-based program is that it does not offer a systemic approach that addresses the broader factors contributing to youth substance abuse.

As seen through these two case studies, task shifting to less highly trained workers is strategy that offers unique advantages in the Greenlandic context. It is a positive example of how a limited number of physicians and psychiatrists in Greenland can work in coordination with community members trained specifically to undertake tasks related to youth substance abuse treatment.

However, numerous stakeholders asserted that community health workers are overburdened with patients, and do not have time to train for or deliver substance use care and follow-up. Informants mentioned that while training these workers is possible, their workload must be abated if they are expected to take on task-shifted responsibilities. Other people capable of receiving training to take on tasks shifted from mental health professionals include "strong" community members, such as those who run youth clubs. "Strong" community members were mentioned by several stakeholders as role models in communities that may have undergone substance use therapy themselves and are now recovered and substance-free. Furthermore, youth club leaders already foster relationships with adolescents in the community. These youth clubs are capable of housing children overnight in case they need urgent care and a place to be away from home; training these leaders may increase the delivery of basic care to youth while reserving more advanced psychotherapeutic and medical interventions for professionals.

Though task shifting overcomes some of the current service delivery constraints in Greenland, task-shifting models remain reliant on supervision and oversight provided by a few specialized professionals, such as physicians and psychiatrists, who are few in number, located in Nuuk, and have a high rate of turnover. In addition, identifying suitable NSHWs and OPHRs who are willing to train for and deliver youth substance abuse care could be particularly challenging since these individuals may already be overburdened with their current duties. Lastly, task shifting can be employed within a variety of substance abuse treatment models. It will be important to select a comprehensive model that best meets the needs of Greenlanders. Policymakers in Greenland will need address these potential obstacles when implementing interventions involving task-shifting.

### **Integrated Care: The Collaborative Care Model**

Integrated care programs partially or fully blend mental, neurological, and substance-abuse services with primary and general care services.<sup>37</sup> Consequently, general medical care and MNS care are coordinated and available within the same setting. This type of integrated system is "convenient for patients, can reduce the stigma associated with treatment for mental disorders, builds on existing provider-patient relationships, and can help improve care for the millions of patients who have both medical and mental disorders."<sup>38</sup> Furthermore, integrated care is particularly appropriate for settings facing a shortage of specialists and when patients are not receiving effective care due to a lack of follow through.<sup>39</sup>

First developed by the University of Washington in the United States for the treatment of depression, the collaborative care model (CoCM) is a specific type of integrated care with a substantial evidence base. The University of Washington offers an implementation guide and other supportive resources for those seeking to implement collaborative care. CoCM has been experimentally tested in more than 80 randomized controlled trials in the US and abroad across a wide range of patient populations and practice settings. Several meta-analyses indicate that collaborative care “leads to better patient outcomes, better patient and provider satisfaction, improved functioning, and reductions in health care costs” when compared to usual care.<sup>40</sup>

Collaborative care was designed based on principles of effective chronic illness care so that it could be used to treat common MNS conditions such as depression and anxiety that are persistent and therefore require systematic, long-term follow-up and management.<sup>41</sup> Though collaborative care was initially created for the treatment of depression in primary care settings, it is increasingly being used to treat other conditions such as PTSD, co-morbid medical conditions (diabetes, heart disease, and cancer), and substance abuse disorders in a wider range of settings such as schools and community health centers.<sup>42</sup> Moreover, CoCM has been proven effective for all age groups, including adolescents.<sup>43</sup> Based on each of the above factors, collaborative care is an important option to consider when implementing adolescent substance abuse care in Greenland.

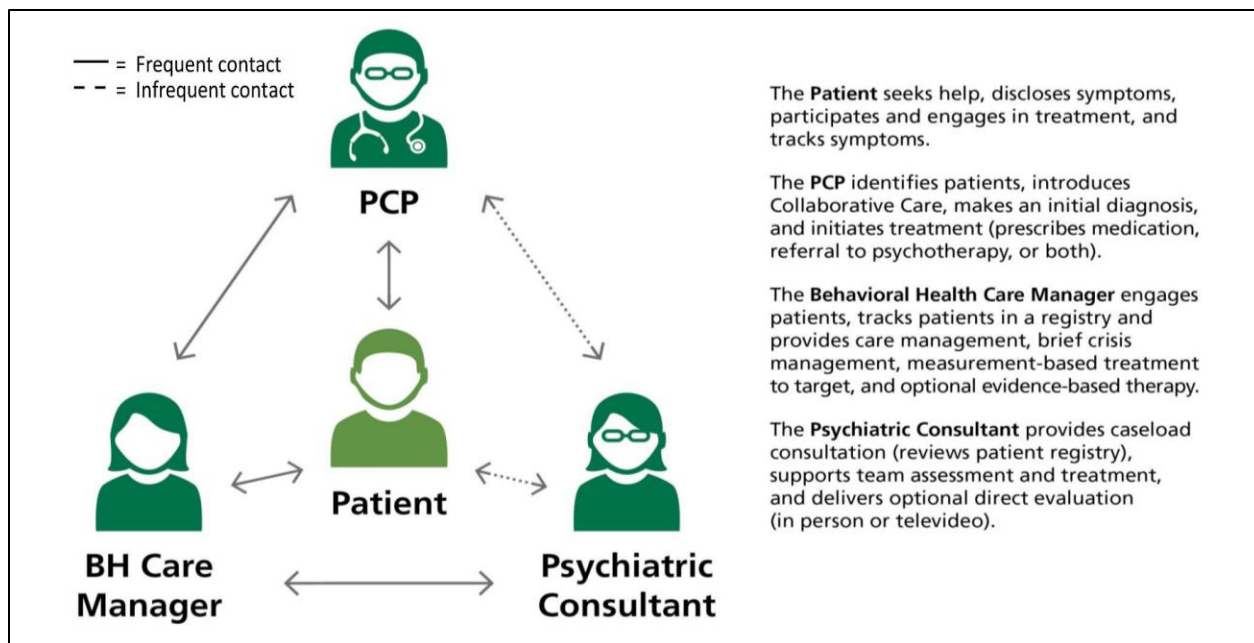
## BACKGROUND

Collaborative care models are based on a foundation of four core principles.<sup>44</sup>

1. ***Patient-Centered Team Care:*** “Primary care and behavioral health providers collaborate effectively using shared care plans that incorporate patient goals. The ability to get both physical and mental health care at a familiar location is comfortable to patients and reduces duplicate assessments. Increased patient engagement oftentimes results in a better health care experience and improved patient outcomes.”<sup>45</sup>
2. ***Population-Focused Care:*** “Care team shares a defined group of patients tracked in a registry to ensure no one falls through the cracks. Practices track and reach out to patients who are not improving, and mental health specialists provide caseload-focused consultation, not just ad-hoc advice.”<sup>46</sup>
3. ***Measurement-Guided Treatment to Target:*** “Each patient’s treatment plan clearly articulates personal goals and clinical outcomes that are routinely measured by evidence-based tools like the PHQ-9 depression scale. Treatments are actively changed if patients are not improving as expected until the clinical goals are achieved.”<sup>47</sup>
4. ***Evidence-Based Care:*** “Patients are offered treatments with credible research evidence to support their efficacy in treating the target condition. These include a variety of evidence-based psychotherapies proven to work in primary care, such as Problem-solving Therapy (PST), Behavioral Activation (BA), and Cognitive-Behavioral Therapy (CBT), and medications.”<sup>48</sup>

In order to implement these core principles, multidisciplinary teams of professionals with complementary skills work together to provide care and monitor progress in a coordinated manner for specific patient populations.<sup>49</sup> This team-based structure represents a shift from usual MNS care where the treatment team has only one member – the primary care provider (PCP).<sup>50</sup> In contrast, collaborative care adds two additional roles – the on- or off-site care manager and the off-site psychiatric consultant. The success of collaborative care depends on each member of the treatment team fulfilling his or her specific roles within the model as illustrated and described below.<sup>51</sup>

## **Figure 2: Collaborative Care Team Structure<sup>52</sup>**



The behavioral health care manager is responsible for coordinating the overall efforts of the team, promoting effective communication among team members, and overseeing a specified caseload of patients.<sup>53</sup> Specific duties of the behavioral health care manager include: coordinating treatment plans, proactively following up on a patient’s response to treatment, alerting the PCP if a patient is not improving, supporting medication management, facilitating communication with the psychiatric consultant regarding treatment changes, and providing brief counseling using evidence-based techniques.<sup>54</sup> Behavioral health care managers are usually psychologists, nurses, licensed counselors, or social workers.<sup>55</sup> However, other individuals without these credentials can also be behavioral health care managers if they have the ability to fulfill the necessary duties.<sup>56</sup> For example, community members and local community health workers can be trained to take over the role of behavioral health care manager. In addition, behavioral health care managers can either be co-located with the primary care team or available by phone and email. This allows for greater flexibility when selecting a qualified individual to fulfill this role.

The role of the psychiatric consultant can be performed by any psychiatric expert who is able to assist the PCP through the process of diagnosis and treatment planning.<sup>57</sup> The psychiatric consultant may offer recommendations about changes in treatment if the patient is not improving, recommend that the PCP see a patient for an in-person visit, or consult on more challenging cases involving patients who need specialty MNS care services.<sup>58</sup> Given that the psychiatric consultant can communicate with the behavioral health care manager and the PCP via phone or electronic health record, it is not necessary for the psychiatric consultant to be co-located with the other two team members.<sup>59</sup> CoCM is designed to allow the psychiatric consultant to carry out all necessary duties remotely as might occur when treating isolated or rural populations.<sup>60</sup> Consequently, the psychiatric consultant must be prepared to treat patients without seeing them, create treatment plans quickly with limited information, and balance the treatment needs of a population as a whole.<sup>61</sup> Except in rare circumstances, the psychiatric consultant does not see the patient nor does he or she prescribe medications.<sup>62</sup>

In contrast to usual care where the primary care provider’s time may be too limited to proactively follow up with each patient, collaborative care provides the PCP with two additional resources, the behavioral health care manager and the psychiatric consultant, who carry out supportive duties on an ongoing basis as outlined above.<sup>63</sup> In CoCM, the PCP works closely with each patient’s behavioral health care manager and continues to direct all aspects of patient care, including prescribing all medications.<sup>64</sup>

Researchers from the Cochrane Collaboration published a review of the efficacy of collaborative care for depression and anxiety in 2012. In their literature search, they identified 79 randomized controlled trials conducted in the US, Europe, and lower-resource settings such as Chile and India. Though the interventions included in their analysis are not specific to substance abuse and the settings are primarily high-resource countries, their results are still of interest for Greenland given that CoCM can be adapted for substance abuse care and for low-resource settings. From the selected studies, the researchers performed a series of meta-analyses and found that:<sup>65</sup>

- “Collaborative care for patients with depression is more effective than usual care in terms of depression outcomes at around six months, 12 months, and 24 months, although the effects were not significant after 24 months.”
- “Collaborative care for patients with anxiety is more effective than usual care in terms of anxiety outcomes at around six months, 12 months and 24 months.”
- Collaborative care is more effective than usual care in terms of “medication use, mental health quality of life, and patient satisfaction, although there [is] less evidence of benefit in physical quality of life.”

Overall, the researchers concluded that there was robust evidence for the effectiveness of collaborative care for depression in the short- and medium-term.<sup>66</sup> The magnitude of the benefits is less than some other key comparison treatments (such as cognitive behavioral therapy) delivered outside of the primary care setting, though the benefits do endure over time and are similar to those of other treatments delivered in the primary care setting.<sup>67</sup> Further research is needed to compare collaborative care with other interventions and to evaluate the effectiveness of collaborative care for other conditions such as substance abuse.<sup>68</sup>

Collaborative care models have been used in a range of settings with resource limitations such as those found in Greenland. From the broader literature, two case studies on collaborative care have been selected to demonstrate how elements of this model could be implemented within the Greenlandic context. These case studies are presented below.

### CASE STUDY #3: mhGAP-IG-BASED COLLABORATIVE CARE IN RURAL NEPAL

Roughly 80 percent of Nepal’s 30 million citizens live in rural areas where communities are separated from mental health professionals by more than 14 hours by road.<sup>69</sup> The approximately 50 psychiatrists in the nation practice primarily in major cities, leaving rural Nepalis without access to mental health care.<sup>70</sup> In Accham, one of the poorest districts in Nepal, a nongovernmental organization partnering with the country’s Ministry of Health has used CoCM to deliver care to rural populations using primary care providers working within the country’s national health system.<sup>71</sup>

The mental health care services in Accham are based in Bayalpatra Hospital, a district-level government facility which has been operated by Possible, a non-profit health care organization, in partnership with the Ministry of Health since 2008.<sup>72</sup> Prior to Possible’s arrival in Accham, there were no allopathic physicians in the Accham district which has a population of 250,000 people.<sup>73</sup> To supplement their primary care services, Possible began mental health service delivery by implementing a collaborative care model using the following steps: “1) training all generalist clinicians in screening, diagnosing, and treating mental illness; 2) recruiting counselors to provide basic psychotherapy and care coordination; and 3) engaging an off-site psychiatrist to provide supervision and quality control via weekly case review.”<sup>74</sup>

Possible partnered with other mental-health-focused nongovernmental organizations in Nepal in order to develop culturally- and contextually-relevant training sessions, manuals, packages of care, and psychiatric tools.<sup>75</sup> Training materials were translated into conversational Nepali and the use of technical terms was minimized. Whenever new technical terms were needed, they were given simple language descriptions.<sup>76</sup> Individuals who received training include Community Medical Assistants (who complete 15–18 months undergraduate training, including clinical rotations for 3 months), Health Assistants (who complete completed 36 months of undergraduate training, including 6 months of clinical rotations), and Bachelor of Medicine, Bachelor of Surgery

physicians (who complete 5 years of undergraduate training, including a 1-year clinical internship) and Psychosocial Counselors (who complete a 6-month post-secondary training in counseling, psychosocial support, care coordination, and stress-reduction).<sup>77</sup> Within the collaborative care model, the Psychosocial Counselors were trained to serve as the care managers.

Training was focused on psychosis, depression, and post-traumatic stress disorder which were identified as priority conditions in the region.<sup>78</sup> The curriculum and delivery approach relied upon the mhGAP-IG which, as described in the task-shifting section of this report, also contains protocols for substance abuse treatment.<sup>79</sup> The mhGAP-IG was selected because it was designed to be used both by physician and non-physician clinicians as would be the case at Bayalpatra Hospital. The training process consisted of video lectures, facilitated role-play scenarios, and on-site sessions led by a psychiatrist based at Kathmandu Medical College.<sup>80</sup> This same psychiatrist makes weeklong visits back to Accham every quarter to provide additional training and supervision for the clinicians at Bayalpatra. While the psychiatrist is in Kathmandu, he remotely calls the care managers each week for a caseload review.<sup>81</sup> Consequently, this case study describes a sustainable model under which a single specialist based in an urban area can train workers and oversee care for a sizeable rural population. Given the limited number of mental health specialists in Greenland, a similar model may best capitalize on available resources.

#### CASE STUDY #4: THE KNAW CHI GE WIN COLLABORATIVE CARE MODEL

There is a significantly higher prevalence of mental illnesses such as depression and addiction among Aboriginal communities as compared to the general Canadian population.<sup>82</sup> Exacerbating these issues is the fact that there is no national Aboriginal mental health strategy in Canada. The few existing programs are fragmented, resulting in serious gaps in access to mental health care.<sup>83</sup> On Manitoulin Island in Northern Ontario, the Knaw Chi Ge Win mental health team is working to address these issues by creating a collaborative, community-based, and culturally-competent mental health care delivery model that integrates clinical care with traditional Aboriginal healing techniques.<sup>84</sup>

On Manitoulin Island, there are seven First Nations communities and First Nations people account for over one-third of the rural island's approximately 13,000 residents.<sup>85</sup> Family medicine services are available in some of the larger communities but specialist care is located at a driving distance of 1.5 to 3 hours from island communities.<sup>86</sup>

Knaw Chi Ge Win services are "provided within a holistic Aboriginal framework that acknowledges the physical, mental, emotional, and spiritual aspects of health as well as historical, socioeconomic and cultural influences."<sup>87</sup> Patients can openly choose traditional or clinical approaches to treatment within the same setting. They can also choose to receive care in their Aboriginal language rather than English if desired.<sup>88</sup> This helps to engage geriatric patients who prefer to speak their Aboriginal language. The Knaw Chi Ge Win core team of providers consists of a mental health program manager (1 FTE), a psychologist (1 FTE), a traditional Aboriginal care coordinator (1 FTE), mental health workers/clinicians (2 FTE), and a mental health nurse case manager (1 FTE). In addition to the services provided by the core team, specialized services are integrated through the use of a visiting psychiatrist (1 day per month) and a traditional Aboriginal healer (4-5 days per month).<sup>89</sup>

The core care team meets weekly to review new cases, assign patients to the most appropriate providers, and coordinate mental health counseling, referrals to other providers, psychiatry services, and traditional healing services.<sup>90</sup> For patients with chronic mental health issues, the visiting psychiatrist and the mental health nurse case manager work together with primary care physicians and update one another via progress notes. The case manager monitors patients on a weekly or monthly basis and collaborates with the visiting psychiatrist in-person during the psychiatrist's monthly visits or via fax at other times.<sup>91</sup>

To increase patient access to other essential services such as housing or employment opportunities, the case manager also works with First Nations community-based paraprofessional workers. In order to facilitate these efforts, the Knaw Chi Ge Win team has developed district-wide networks and strategic planning meetings to

bring together addiction and mental health service providers with acute care providers and the social services sector.<sup>92</sup> Positive outcomes associated with the Knaw Chi Ge Win model include “improved access to a range of mental health services in a rural environment, increasing continuity of care, improved cultural safety, integration of clinical and traditional Aboriginal services, and a stable mental health team with low attrition rates.”<sup>93</sup> In the Greenlandic context, each of these positive outcomes would form a strong foundation for youth substance use interventions.

### APPLICABILITY TO GREENLAND

The implementation of CoCM in Nepal illustrates how a single specialist based far from rural areas can train many non-specialist health workers using culturally-appropriate tools based on the mhGAP-IG. In the case of Greenland, a few specialists based in cities such as Nuuk could be utilized to train collaborative care teams in rural areas using the mhGAP-IG protocols on substance use disorders. In areas where physicians are not available, Greenland can employ task shifting by training NSHWs and OPHRs to serve as members of the collaborative care team. The Nepal example also shows that remotely training health workers via video lecture can be an effective way to provide education when facing limited specialist availability. Similar training methods could be useful when training rural health workers in Greenland.

Possible worked in partnership with mental health NGOs in order to adapt mhGAP tools to the Nepali language and cultural context, a crucial step given that both health workers and patients had limited knowledge of English and technical health terms. This partnership serves as an example for how different stakeholders in Greenland can work together to adapt selected tools and protocols. Furthermore, Possible selected mhGAP because they wanted to create a program that could be implemented by the non-physician clinicians who commonly provided care in Accham. In Greenland, health stations in remote settlements are also staffed by non-physician clinicians. Thus, designing a program that matches the capabilities of these NSHWs is another important consideration.

The Knaw Chi Ge Win collaborative care model demonstrates that CoCM can be successfully adapted to indigenous populations in resource-constrained rural settings, again with minimal specialist presence. The Knaw Chi Ge Win model was designed to serve an indigenous population; staff members use collaborative care to provide holistic therapy within an Aboriginal cultural framework. This indicates that a CoCM could also be adapted to Greenlandic culture. Patients can receive Knaw Chi Ge Win services in their Aboriginal language. Likewise, if substance abuse services in Greenland were available in Greenlandic, this would allow Greenlandic-speaking youth to better engage in and benefit from therapy. Through the Knaw Chi Ge Win team, patients have access to mental health workers, case managers, a psychologist, a psychiatrist, and a traditional Aboriginal healer. In consultation with providers, patients are able to access the mix of clinical and traditional Aboriginal services best suited towards their needs. Similar multidisciplinary teams could function well in Greenland.

The Knaw Chi We Gin team also spearheads efforts to link mental health care with other social services important to their patients. This model is an example of how a mental health program can simultaneously foster intersectoral collaboration and provide critical support services to patients. In Greenland, similar efforts could link organizations such as Allorfik, Family Centers, and schools in order to identify strategies to support youth receiving substance abuse therapy.

An advantage of collaborative care models is that they bring together available personnel to deliver comprehensive, evidence-based care with only limited specialist presence. Collaborative care also helps to develop robust referral and linkage systems between primary care and specialist services. PCPs and care managers gain access to expert support and patients gain access to specialist care, all without overburdening a limited number of specialists. Collaborative care can also provide the flexibility that was emphasized by stakeholders during interviews and focus groups. While the PCP and the care manager begin with a standardized treatment protocol, each of these individuals can incorporate other evidence-based treatments and psychotherapies (such as PST, BA, and CBT) as needed. In more complex cases, patients can be referred to a psychiatric consultant. CoCM models can also incorporate aspects of stepped care whereby treatment intensity



is increased for those patients who do not initially respond to treatment. This multi-tiered approach allows the therapy process to be adapted to meet the unique needs of each individual and community.

A significant limitation of collaborative care models is that they do require the presence of specialized personnel at higher levels of the health system to train staff and oversee care. In settings with extreme workforce constraints, this level of involvement may place too much strain on specialists. Another disadvantage of CoCM is that it does not incorporate robust engagement strategies. As a result, a collaborative care intervention in Greenland may be more effective if combined with other efforts to engage youth, their families, and their communities. Stakeholders also underscored the importance of family and community involvement in youth therapy, yet CoCM does not explicitly involve family or community members, nor does it foster the development of support networks or mobilize the community against substance abuse. Given CoCM's flexibility, however, the model could be adapted to include these components. A collaborative care model that incorporates these modifications has the potential to be highly effective in the Greenlandic context.

## **COMMUNITY MOBILE TREATMENT**

Another approach for extending services to remote areas is community mobile treatment. Community mobile treatment programs bring external service providers into a community to administer an intensive alcohol and drug treatment program.<sup>94</sup> Substance abuse providers, such as psychiatrists, social workers, and psychotherapists, train community members to assist with program delivery during treatment and to provide aftercare following the end of treatment. These community members also conduct activities designed to change patterns of substance abuse on an ongoing basis.<sup>95</sup> First piloted in indigenous communities in Canada in 1984, this approach has subsequently been successfully adapted to diverse settings such as India, Thailand, Sri Lanka, and Afghanistan.

Allorfik, in conjunction with the Family Centers, has recently begun using mobile teams to extend substance use treatment to smaller Greenlandic settlements. These teams are already working with some local governments and settlement leaders to discern which communities to visit and to identify individuals in need of substance abuse treatment. These teams have social workers and psychotherapists that could provide family and group therapy in an individual's home environment, as opposed to moving them to a central location to receive individual therapy. Currently, the use of these teams is in its beginning phases, and no consistent schedule has been developed to ensure continual visits to settlements in need of services.

## **BACKGROUND**

Community mobile treatment was first developed in order to offer an alternative to traditional addiction treatment. In community mobile treatment, individuals are treated within their own community surrounded by support networks of friends and families rather than receiving treating individually through the medical system.<sup>96</sup> The entire community is involved in the treatment process at the same place and time which creates "a sober nucleus of recovering individuals that serve as a mutual support system for one another."<sup>97</sup>

The end goal of community mobile treatment is to permanently change the "community values, attitudes, and behaviors related to the use of alcohol and other drugs" such that there is a continued commitment to rooting out old patterns of substance abuse.<sup>98</sup> Rather than simply focusing on the individuals receiving treatment, community mobile treatment aims to create lasting repercussions throughout the whole community.<sup>99</sup>

Implementation of community mobile treatment involves three steps. The first step is the pre-treatment phase whereby the entire community is mobilized to work towards solutions to the prevalence of substance abuse among its members.<sup>100</sup> Before a treatment team visits, the community itself must identify that its members have a substance abuse problem and be prepared for and committed to change.<sup>101</sup> This strong emphasis on community involvement is a distinguishing feature of community mobile treatment and serves two key purposes.<sup>102</sup> First, community mobile treatment is based on the premise that substance abuse is a local problem. As such, community involvement allows for solutions to be adapted to the local environment.<sup>103</sup> Second, community

members are more willing to accept and comply with treatment when they have ownership over the decision-making process.<sup>104</sup>

The second step of community mobile treatment is the treatment phase. The treatment phase begins when specialized addiction teams come into communities that have been successfully mobilized in order to deliver intensive, two- to four-week substance abuse programs.<sup>105</sup> During this process, community members are trained to assist the specialist team in delivering the treatment program.<sup>106</sup> As this intensive treatment program ends, the post-treatment phase commences. In this third and final phase of community mobile treatment, trained community members begin implementing various aftercare and support programs for the individuals who received treatment and the broader community.<sup>107</sup> Accordingly, these trained community members are responsible for spreading and sustaining the impact of the pre-treatment and treatment phases of the program.<sup>108</sup>

The specific components of the three phases of community mobile treatment are described in greater detail below.

In the pre-treatment phase, program components include:

1. **Identifying the Problem:** The pre-treatment phase begins when the substance abuse problem in a community is recognized by community members and paired with a strong desire among these members to confront the issue. Who these members are will vary from community to community.<sup>109</sup>
2. **Raising Community Awareness and Support:** Addressing substance abuse at the community level requires community-wide buy-in. Consequently, the next step is to raise community awareness and support through a variety of methods such as the five listed here. Overall, this step in the process can take anywhere between one to two months or up to one to two years depending on how quickly and intensively awareness and support are spread.<sup>110</sup>
  - **Education and Information:** Community meetings, educational workshops, school presentations, life-skill development courses, presentations from outside agencies, and the development of support groups can all provide a forum for teaching the community about substance abuse.<sup>111</sup>
  - **Role Models:** Community members addressing substance abuse should aim to work in a highly visible manner and involve as many members of the community and outside agencies as possible. This delivers a strong value message to the entire community that many of their peers are committed to combatting substance abuse.<sup>112</sup>
  - **Support:** These same community members can support others who are currently struggling with substance abuse by developing support groups, preparing the individuals for treatment, and providing referrals for treatment.<sup>113</sup>
  - **Documenting Community Problems:** To prevent certain community members from denying that there is a substance abuse issue, leaders of the substance abuse efforts can prepare a report on the scope of the damage to their communities caused by substance abuse. This report can document indicators of family, medical, and/or legal issues to provide a current snapshot of the impact of substance abuse and can later be utilized as marker to measure progress.<sup>114</sup>
  - **Intervention:** With community leader support, community members can intervene in cases of substance abuse where an individual is harming himself or herself or other individuals.<sup>115</sup>
3. **Problem Solving:** Once there is community-wide engagement and commitment to alleviating substance abuse issues, the community is ready to make a request for a mobile treatment team. At this point, it is

important to ensure that the community has taken ownership over the idea of community mobile treatment and its implementation.<sup>116</sup>

Once all the steps in the pre-treatment phase have concluded, the mobile team arrives in the community to begin the treatment phase.<sup>117</sup> In this phase, program components include:

1. **Setting Expectations:** The first step for the mobile treatment team to complete is setting expectations. In particular, community leaders must understand that receiving treatment from the mobile team will not be a permanent solution to their problems.<sup>118</sup> Rather, the work of the mobile team provides a foundation that the community can build on by offering further support on a continuing basis. For example, the community can offer “ongoing support groups, counseling, refresher courses, training, substance free social activities, and interven[ions] when necessary.”<sup>119</sup>
2. **Delegating Responsibilities:** Next, mobile team members meet with community leaders to assess the level of commitment to the mobile treatment program. If community leaders do not fully support and take ownership over the program, the treatment phase is more likely to be unsuccessful.<sup>120</sup> To determine the level of support among community leaders, the mobile team assigns these leaders responsibility for “publicizing the event, covering expenses, providing facilities and services, and assisting with the selection of clients.”<sup>121</sup> If these responsibilities are not fulfilled, then it is likely that the level of commitment is insufficient for treatment to proceed.
3. **Identifying the Cultural Belief System:** Another critical step for the mobile team is to identify a community’s cultural beliefs and practices and incorporate them into treatment plans. This step is especially important when working with indigenous communities for whom such traditions play an essential role in daily life.<sup>122</sup>
4. **Implementing Treatment:** At this stage, the intensive treatment period begins and usually lasts for 21 to 28 days to model existing residential treatment programs. Treatment programs include “cultural activities, group counseling, individual counseling (clients, family, and significant others), community education and information sessions, and facilitating the development of long-term support networks and programs.”<sup>123</sup> Typically, a maximum of 30 individuals are selected to participate so that the total cohort size remains manageable. Community members serve on the treatment team in order to assist with overcoming language barriers, identifying community norms, gaining the support of key stakeholders in the community, and facilitating the maintenance of aftercare once the treatment team leaves.<sup>124</sup>

In the post-treatment phase, program components include:

1. **Aftercare:** Support networks developed during the treatment phase now offer treatment, referral, and support to community members in the absence of the mobile team. Trained community members, addiction counselors, and support groups all play a role in delivering aftercare. Furthermore, it is recommended that a member of the original treatment team return to the community every three months to offer refresher courses.<sup>125</sup>
2. **Evaluation:** The purpose of program evaluation is to determine the extent to which a community’s objectives were met, particularly in comparison to the report created in the pre-treatment phase. The evaluation process should incorporate a variety of sources from before and after program implementation and include a follow-up period of at least one year.<sup>126</sup> Key areas of interest include changes at the individual level for those who received treatment, changes in community-wide behavior and values surrounding substance abuse, aggregate statistics on drug use and related crimes, and the overall level of interest in community mobile treatment and support group events.<sup>127</sup>

Though community mobile treatment has been implemented in a variety of settings, relatively few descriptions and evaluations of such interventions have been published in the literature. The following section of the report presents two case studies of community mobile treatment and provides evaluative information where available.

#### CASE STUDY #5: THE “CAMP APPROACH” TO ALCOHOLISM TREATMENT IN RURAL INDIA

In 1980, the T.T. Ranganathan Clinical Research Foundation (commonly known as TTK Hospital) was founded as an alcoholism and addiction treatment and rehabilitation center in the city of Chennai in Tamil Nadu, India. As TTK representatives conducted outreach activities in rural villages in Tamil Nadu, they received requests to offer alcoholism treatment facilities in the village setting so that therapy would be available to the rural poor who lacked the resources to access treatment in Chennai.<sup>128</sup> In response to this request, TTK piloted its first village-based alcoholism treatment camp in 1989 in Manjakkudi, a rural village in Tamil Nadu. The success of the “camp approach” in Manjakkudi led TTK to expand the program to include six rural sites where addiction treatment camps continue to be held to this day.<sup>129</sup>

Though this treatment model is known as the “camp approach” in India, it is essentially identical to community mobile treatment with regards to its goals and structure. Under the camp approach, the goals of each camp are two-fold. First, the camp should provide treatment that is tailored to the needs of villagers, is freely available in their local communities, and is sensitive to the rural Indian cultural context. Second, each camp should create awareness of the issues surrounding drinking so that the entire community is empowered to combat alcoholism.<sup>130</sup>

As in community mobile treatment, the camp approach also divides each camp into three phases. In the pre-treatment phase, community awareness is raised, a supportive and well-respected host organization is selected, community representatives are trained, individuals requiring treatment are identified, and the first steps of rehabilitation (home detoxification, addressing any medical problems, motivating the patient and family to attend the camp) are initiated.<sup>131</sup> During the 15-day intensive treatment phase, patients receive medical support to treat physical problems associated with alcoholism, learn about alcoholism through educational lectures, share their experiences in group therapy, develop short- and long-term goals in individual counseling, reinforce their spiritual or religious beliefs through prayer and story-telling, and strengthen their motivation by engaging with recovering alcoholics who took part in past camps.<sup>132</sup> During this phase, the camp provides educational sessions, counselling, and group therapy for family members so that they can support camp participants after treatment ends. There are also specific 2-hour and half-day sessions for support persons and the local community to become involved in treatment efforts.<sup>133</sup> Once the treatment phase ends and the post-treatment phase begins, follow-up occurs monthly for 12 months. Counselors, support persons, and the host organization work to monitor and sustain recovery progress and help with relapses.<sup>134</sup>

During the first four years that camps were held in Manjakkudi (1989 to 1992), 105 patients participated and were followed for a period of 1 year after treatment. After this follow-up period, 87 of the 105 patients remained sober, meaning that they both gave up alcohol and made positive changes in their lives with regards to relationships, employment, finances, and social standing within the community.<sup>135</sup> The importance of these kinds of holistic life improvements was emphasized by stakeholders interviewed for this report. As such, community mobile treatment or the camp approach remains highly relevant to the Greenlandic context.

#### CASE STUDY #6: A VILLAGE-BASED TREATMENT MODEL IN AFGHANISTAN

Rates of drug use are extremely high across Afghanistan, particularly in rural areas where approximately three-quarters of the nation’s population resides. The high prevalence of drug use is facilitated by the widespread availability of opioids given Afghanistan’s status as the world’s largest producer of opium and heroin.<sup>136</sup> The 2015 Afghan National Drug Use Survey estimated that drug use occurs in 31 percent of households nationwide (39 percent in rural areas versus 11 percent in urban areas). The survey also found that 11 percent of the population tested positive for one or more drugs (13 percent in rural areas versus 5 percent in urban areas).<sup>137</sup> Overall, the survey estimates that there are over two million active drug users in Afghanistan yet treatment

centers, all of which are located in urban areas, only have the capacity to treat approximately 27,280 drug users per year on an inpatient basis.<sup>138</sup> Existing education, prevention, and treatment programs cannot meet the needs of Afghanistan's drug users, particularly in rural areas where drug use is most prevalent.<sup>139</sup>

Because of the success of TTK's "camp approach" in South India, the Colombo Plan Drug Advisory Program, with the support of the Bureau for International Narcotics and Law Enforcement Affairs (INL) of the U.S. Department of State, began a camp approach pilot program in rural Afghanistan.<sup>140</sup> They organized a mission to Tamil Nadu for Afghan village leaders, government officials, and NGO treatment experts in order to adapt the camp approach to the Afghanistan context. A detailed depiction of the three-phase structure of the adapted model is seen in Appendix B.<sup>141</sup>

The village-based treatment program was piloted in four villages in the Kaldar district of Balkh province from June 2012 to June 2013.<sup>142</sup> The 2012 Afghanistan National Urban Drug Use Survey included a case study on two of these four rural villages and found that over a third of the total population in each village tested positive for opioids.<sup>143</sup> The pilot program was carried out by an NGO partner that runs numerous treatment centers in urban Afghanistan.<sup>144</sup> Services were provided by project staff, local shura (community group of elders), and local volunteers. During the pre-treatment phase, awareness campaigns reached over 9,000 villagers and approximately 450 drug users received motivational counselling.<sup>145</sup> Fifteen camps were then carried out in rotations through the four villages. Five of the camps were designated for men, five for women, and five for children. One hundred men, 90 women, and 90 children from the targeted villages received treatment in the camps.<sup>146</sup>

Based on positive results seen in these four villages, the pilot program was expanded to other provinces in Northern Afghanistan from 2013 to 2014.<sup>147</sup> Furthermore, the Afghan National Drug Action Plan for 2015 through 2019 incorporated these village-based treatment camps into national policy. This document, which was signed by President Ashraf Ghani in 2015, formally commits the Ministry of Public Health and the Ministry of Counter Narcotics to the continued development and expansion of these village-based treatment camps to other rural areas. The success of the camp approach in India and Afghanistan mirrors the success of community mobile treatment in First Nations communities in Canada. This model's success in diverse settings makes it a strong option for implementation in Greenland.

#### APPLICABILITY TO GREENLAND

The initial success of the Manjakuddi camp and the continuing success of additional camps that have taken place over the past three decades demonstrate that quality addiction care can be provided in rural settings at a low cost over the long term. The success of the village-based approach in Afghanistan further underscores the fact that community mobile treatment is a highly flexible model that can be adapted to various cultural contexts and resource levels. More importantly, however, the implementation process in Afghanistan shows how policymakers in Greenland can learn from interventions in other settings and then pilot their own programs. Collectively, these factors illustrate that community mobile treatment can be successfully implemented in highly resource-constrained settings, thereby making it a feasible model for delivering substance abuse care in Greenland.

One advantage of community mobile treatment is the fact that though the intensive treatment phase itself is short, the three-phase structure as a whole creates a longer-term, sustainable therapy model. For instance, community mobile treatment contains an engagement, or pre-treatment phase, and an aftercare, or post-treatment phase, two components that were especially important to stakeholders interviewed for this report. In Greenland, incorporating similar phases into treatment plans would ensure that a greater number of adolescents could be recruited into interventions with a lower likelihood of relapse into substance abuse after the intensive treatment phase end. The engagement phase in particular would help to mobilize the entire community against substance abuse, thereby changing broader stressors contributing to substance abuse within the community.

Stakeholders also emphasized the importance of a multi-tiered approach, involving a flexible combination of resources and delivery strategies, in order to best meet the needs of diverse communities. To address this issue, community mobile treatment team members can be trained to deliver a variety of types of therapy (individual, family, and group therapy) using various delivery mechanisms (e.g. on-site and telehealth-based). In addition, community mobile treatment is an inherently community-driven therapy model. Any proposed solutions will be jointly designed by community leaders and mobile team members to best fit local needs. Furthermore, current substance abuse care in Greenland was created specifically for adults. A new community mobile treatment program could instead be tailored to the needs of adolescents and incorporate schools, youth groups, and youth-only treatment camps. Because treatment takes place within local communities, family members, role models, and other community volunteers can serve as an important source of support for youth before, during, and after treatment.

Community mobile treatment also offers a way to provide specialist substance abuse care without being reliant on the availability of providers in extremely remote, resource-limited communities. For instance, each mobile team is made up of addiction professionals who can provide more specialized therapy than would otherwise be available. This enables patients to receive specialized care without having to leave their communities for treatment centers in urban areas. Moreover, because these teams work directly within each community, specialist service providers are able to develop strong interpersonal connections with individuals receiving treatment. This can serve as a basis for continued progress once the team's time in the community ends. Using in-person therapy, mobile teams can offer the "warmth" that helps youth substance users build trusting relationship with their therapists. If mobile teams are able to visit the same settlements over time or continue therapy through telehealth, these teams also have the potential to create long-term relationships with patients.

On the other hand, community mobile treatment also faces several limitations. One pressing concern is scalability. The case studies in India and Afghanistan indicate that a single team can carry out four to six treatment camps per year. To reach more communities at one time, Greenland may need to create several mobile teams. Otherwise, certain communities may not receive treatment for years at a time. Creating several teams would require a considerable number of specialists and may not be efficient if there are only a few cases of substance abuse in each community. A related concern is that Greenlandic weather conditions, particularly in harsher months, could be disruptive to mobile team travel schedules. This would serve to further limit the number of communities that could receive treatment within a given time frame. Another issue is a lack of continuity of care. Though community members remain involved in treatment, specialist presence is limited to the treatment period only. This concern could potentially be mitigated by incorporating telehealth sessions with the mobile specialists or by implementing a collaborative care framework to support individuals after the treatment team has left the community.

Currently, Allorfik is developing mobile teams with psychotherapists and social workers that can be deployed around Greenland to deliver substance abuse therapies. Further expanding these teams to include a full range of mental health specialists and incorporating these teams into a formal community mobile treatment program could be a promising strategy for addressing youth substance abuse. While there are many advantages to implementing community mobile treatment in the Greenland, the aforementioned limitations must also be taken into consideration.

## **Telehealth**

Telehealth utilizes information and communication technologies (ICTs) to provide health care across geographic, logistical, and socioeconomic barriers. Modern ICTS such as computers, cell phones, and the internet have transformed telehealth into a rapidly expanding strategy for health care delivery around the globe. Telehealth can be used to provide primary, specialist, and emergency care by facilitating the exchange of health information from health professional to health professional or between health professionals and patients. Telehealth systems can also be utilized to remotely monitor patients and to provide remote training sessions, supervision, and management for health care providers. As the cost of health technologies continues to decline,

telehealth represents an increasingly valuable tool when seeking to deliver high-quality, cost-effective health care in rural, low-resource settings.

Greenland has made progress in developing its telehealth infrastructure through the introduction of the Pipaluk and Ejournal systems. The presence of these two telehealth systems indicates that telehealth may serve as a means to deliver youth substance use therapy in Greenland. Rather than trying to combat the trend of professional centralization, telehealth can capitalize on the centralization of Greenlandic health providers in order to increase access to care. Infrastructure that can be employed for telehealth delivery already exists and the government is making active efforts to enhance these capabilities. The mental health hospital in Nuuk currently delivers telehealth treatment for people who suffer from domestic violence and certain mental illnesses, demonstrating its feasibility in the Greenlandic context.

## BACKGROUND

The WHO defines telehealth as:

“The delivery of health care services, where distance is a critical factor, by all health care professionals using information and communication technologies for the exchange of valid information for diagnosis, treatment and prevention of disease and injuries, research and evaluation, and for the continuing education of health care providers, all in the interests of advancing the health of individuals and their communities.”<sup>148</sup>

More generally, however, telehealth is the use of several types of ICTs to provide clinical support, improve health outcomes, and overcome geographic barriers by connecting users who are not in the same physical location.<sup>149</sup> Moreover, the field of telehealth is constantly progressing as health technologies evolve and adapt to address new health care challenges.<sup>150</sup>

There are two primary types of telehealth applications which are differentiated according to the timing of the interaction or transmittance of information between the parties involved. Asynchronous, or store-and-forward, telehealth involves the transmittance of pre-recorded information between the relevant individuals at different times.<sup>151</sup> For instance, a patient or health professional emails information to an expert at an academic medical center regarding an important case and the expert replies at a later time. Synchronous, or real time, telehealth occurs when both individuals are simultaneously present to interact and exchange information such as during videoconferencing or speaking on the telephone.<sup>152</sup> Both asynchronous and synchronous telehealth can be utilized in diverse settings for various specialties. In addition, both forms of telehealth rely upon information transmitted through audio, video, text, still images, and biometric monitoring devices.<sup>153</sup>

The tremendous growth in internet and mobile communications access in low- and middle-income countries around the world makes telehealth an increasingly relevant health care delivery strategy in these areas. In many low-income countries throughout Central America, South Asia, and Africa, mobile phones are used by over 80 percent of the population.<sup>154</sup> Although rates of internet access are lower than rates of mobile phone use, a growing number of individuals are using mobile phones to access the internet. Almost 40 percent of the world’s web traffic stems from mobile devices and this figure rises to 66 percent in India, 70 percent in Indonesia, 82 percent in Nigeria, and 75 percent in South Africa.<sup>155</sup> While gaps in mobile phone use and internet access remain, these figures illustrate that mobile phone and internet access have spread to a sizeable proportion of the world’s population. This increased connectivity greatly enhances the potential to utilize telehealth to deliver health care in these settings.<sup>156</sup>

When considering the application of telehealth to mental health care, information and communication technologies can serve as a mechanism to extend workforce capacity and reach. Telehealth can connect patients and health care providers in remote areas to mental health specialists who can support clinical care and treatment.<sup>157</sup> This enables a small number of centrally-located specialists to mentor and supervise a greater number of health workers spread out over large geographic areas. In addition, telehealth can also be utilized to

deliver online educational programs for non-specialist health workers and other professionals with health roles.<sup>158</sup> These training programs can equip these individuals with the tools needed to detect, diagnose, and manage mental health conditions in community and primary care settings. By connecting non-specialist health workers and other professionals with health roles to mental health specialists using telehealth systems, expert support and training opportunities can be provided to improve the quality of mental health care in low-resource settings.<sup>159</sup>

Telehealth can also be a crucial tool in addressing the unmet mental health needs of adolescents. Young people are typically the quickest to adopt new technologies as compared to older individuals within the same environment.<sup>160</sup> For example, Greenlandic youth often use social media, particularly Facebook, which demonstrates that they are familiar and comfortable with online and mobile forms of communication. Furthermore, research suggests that young people in low-resource settings frequently use their mobile devices to seek advice, recommendations, and support from family and friends as well as in the case of personal sickness, health crises, or in response to health concerns of a friend or relative.<sup>161</sup> These findings suggest that telehealth represents an important opportunity for Greenland to reach young people through familiar mobile and online platforms.

A 2017 *Lancet* review article identified 49 studies on digital technology mental health interventions that took place in over 20 low- and middle-income countries. The review's findings on telehealth were promising, indicating positive results from interventions testing the effectiveness of mobile phones, text-messaging, online platforms, and other digital technologies for the delivery of mental health care.<sup>162</sup> Among the 49 studies, the review identified five distinct roles for ICTs: "technology for supporting clinical care and educating health workers, mobile tools for facilitating diagnosis and detection of mental disorders, technologies for promoting treatment adherence and supporting recovery, online self-help programs for individuals with mental disorders, and programs for substance misuse prevention and treatment."<sup>163</sup> With regards to substance abuse, the six identified studies made use of telephone coaching support or online self-help programs, two delivery methods which led to positive outcomes for those who completed the treatments but also resulted in high rates of attrition and low rates of adherence. In contrast, videoconferencing-based interventions for other mental health conditions were found to be feasible and acceptable in a variety of low- and middle-income countries.<sup>164</sup>

Greenland's Pipaluk telehealth service supports camera and illumination systems with medical scopes, a general exam camera, a spot monitor, and a 12-lead interpretive ECG.<sup>165</sup> Currently, Pipaluk is primarily utilized as a store-and-forward system. Local health personnel can use the various components to take pictures or measure vital signs and then transmit this data to specialists who provide diagnoses and prescribe treatments.<sup>166</sup> The system is not currently employed to deliver psychotherapy to remote areas, but health stations containing Pipaluk are equipped with computers with video and Wi-Fi capabilities that could make this possible. If Pipaluk's capabilities expand to include a video communication platform, both therapy delivery and coordination of care through interactive web video would become possible methods of intervention. Given the *Lancet* review article's positive findings on videoconferencing and Pipaluk's potential expansion in this area, the two case studies presented in the following section focus on videoconferencing-based delivery strategies.

#### CASE STUDY #7: KEEWAYTINOOK OKIMAKANAK TELEMEDICINE IN ONTARIO

Keewaytinook Okimakanak Telemedicine (KOTM), operated by the Keewaytinook Okimakanak Tribal Council in Northwestern Ontario, represents a successful example of a sustainable, culturally relevant, holistic telemental health program for remote and rural First Nations communities.<sup>167</sup> KOTM first began utilizing videoconferencing for telepsychiatry consultations through a pilot program for two of its six communities from 2000 to 2001.<sup>168</sup> From 2002 to 2007, KOTM expanded its network to include a total of 26 First Nations communities spread throughout Ontario.<sup>169</sup> KOTM continues to be community-based and community-led, supporting these efforts through regular Chief and Council meetings, Elders' meetings, and direct connections to community members and community telehealth coordinators.<sup>170</sup>



The Keewaytinook Okimakanak Tribal Council serves six First Nations communities which range in population from 250 to 900 individuals to form a total population of approximately 2,800.<sup>171</sup> The Council pools resources from these six communities to deliver comprehensive public services such as health care. Prior to initiating KOTM, First Nations individuals in the region had limited access to mental health care. Clients and their escorts needed to travel an average of 300 kilometers by air to Nodin, a federally-funded counselling center.<sup>172</sup> This required a minimum time commitment of 36 hours for a single, 1-hour counselling session. This process was also costly for the health system given the need for air travel and accommodations.<sup>173</sup> Moreover, Nodin was staffed by a group of rotating specialists who provided a total of approximately 57 days of psychiatric care per year, or less than one-quarter of a full-time psychiatrist equivalent, to a population large enough to justify two full-time psychiatrists.<sup>174</sup>

Before the establishment of KOTM, the demand for mental health care in these First Nations communities greatly exceeded the capacity of existing services, resulting in long wait times.<sup>175</sup> During the program's pilot phase, telehealth equipment allowed for a real-time audio-visual link between First Nations clientele in their home communities and distant specialists.<sup>176</sup> As a result, patients who would otherwise have had little to no access to specialized mental health care were able to videoconference with a psychiatrist. This specialist provided assessment, treatment, and consultation services for mental health issues such as suicidal ideation, grief, substance abuse, depression, and anxiety.<sup>177</sup>

After the pilot phase, the program expanded to include access to physicians in many different specialties, sub-specialists, general practitioners, clinical nurse specialists, and allied health professionals.<sup>178</sup> KOTM infrastructure also supports educational, administrative, and specialized First Nations programming in addition to home-based care for chronic conditions and rehabilitation needs.<sup>179</sup> Each of the 26 partner communities has dedicated space, equipment, and bandwidth to support telehealth activities.<sup>180</sup> Each site is also staffed by a Community Telemedicine Coordinator, a "local individual knowledgeable in the local language and customs, and trained in the technology and the clinical approaches required for successful facilitations of consults and information gathering and transmission."<sup>181</sup>

The communities utilizing KOTM services have experienced a decreased travel burden for patients and providers, more timely access to care, reduced emergency visits and hospital admissions, improved surgical outcomes, greater opportunities for triaging, improved patient monitoring and follow-up, and greater patient self-management.<sup>182</sup> In sum, KOTM has greatly improved the choice, frequency, and proximity of health care services for First Nations communities in Ontario.<sup>183</sup> A similar program implemented in Greenland would not only improve access to substance abuse care for adolescents, but would also improve access to all forms of medical care for the entire population.

#### CASE STUDY #8: PRACTICE-BASED VERSUS TELEMEDICINE-BASED COLLABORATIVE CARE

A major challenge when implementing practice-based collaborative care (collaborative care where all team members are on-site) is the reality that many smaller primary care centers lack sufficient on-site mental health staff.<sup>184</sup> Telehealth technologies such as telephones, videoconferencing, and electronic health records make it possible to virtually co-locate and integrate mental health specialists and care managers into primary care settings, thereby creating a telemedicine-based collaborative care model where only the primary care provider (PCP) need be on-site.<sup>185</sup>

Under telemedicine-based collaborative care, the "off-site team can include an array of mental health specialists, and full-time care managers can practice under more intensive clinical supervision and dedicate their full time to care coordination activities, resulting in higher fidelity to care manager protocols."<sup>186</sup> Potential disadvantages of telemedicine-based collaborative care include greater difficulties in communicating with on-site PCPs, integrating behavioral and physical aspects of care, and forming therapeutic relationships between patients and off-site mental health staff.<sup>187</sup> Furthermore, the stepped care components of the model (such as psychiatric therapy sessions) could be less effective when delivered using telemedicine. However, these concerns are mitigated by the fact that previous research illustrates both that patients and providers tend to report high levels

of satisfaction with videoconferencing and that psychological and psychiatric care delivered via videoconferencing is clinically equivalent to face-to-face therapy.<sup>188</sup>

In 2007, researchers initiated a multisite, randomized controlled trial to compare the effectiveness of practice-based and telemedicine-based collaborative care for depression.<sup>189</sup> Patients were recruited from five federally qualified health centers serving medically underserved populations in Arkansas's Mississippi Delta region and the Ozark Highlands. None of the clinics taking part in the study had an on-site mental health specialist.<sup>190</sup> Patients enrolled in the study were predominantly unemployed and uninsured, from rural areas, had numerous comorbidities, and had treatment-resistant depression. Patients assigned to practice-based collaborative care received care from an on-site PCP and an on-site nurse care manager.<sup>191</sup> Patients assigned to telemedicine-based collaborative care received care from an on-site PCP and an off-site mental health team (a nurse care manager and a pharmacist by telephone, and a psychologist and a psychiatrist via videoconferencing) and also received stepped care. All patients in the study were enrolled and followed for 18 months.<sup>192</sup>

As compared to the patients in the practice-based group, patients in the telemedicine-based group had “significantly and substantially greater treatment response rates, remission rates, reductions in depression severity, and increases in mental health status and quality of life,” all without increasing the number of primary care visits.<sup>193</sup> These findings indicate that implementing a collaborative care model using an off-site telemedicine-based team can yield better outcomes than relying solely on locally available staff.<sup>194</sup> These findings are particularly promising for the Greenlandic context where specialized teams of centrally-located providers could be formed to deliver telehealth-based care to rural populations.

#### APPLICABILITY TO GREENLAND

KOTM has demonstrated how a First Nations-led telehealth intervention can deliver culturally appropriate, competent care across, large, culturally diverse territories. The Keewaytinook Okimakanak Tribal Council established and continues to lead KOTM, ensuring that the program is responsive to the needs of First Nations peoples. In Greenland, engaging rural communities and mobilizing them to play an active role in substance abuse therapy is another way to ensure that the needs of these rural communities are met. KOTM infrastructure is also used to provide educational and First Nations community programming. Similarly, a videoconferencing system in Greenland could be used to educate communities about substance abuse and incorporate programming centered around Greenlandic culture, a topic that was repeatedly mentioned by stakeholders. KOTM also use its telehealth infrastructure to train health workers and to coordinate care for communities across Ontario. Such a system could function similarly in Greenland while also serving as a mechanism to facilitate intersectoral collaboration, another priority emphasized by stakeholders during interviews and focus groups.

The KOTM case study also demonstrates how a videoconferencing system initially created to address mental health issues can be expanded to include access to health professionals working in a wide range of specialties. If Greenland upgrades its own telehealth infrastructure, it can deliver not only specialist mental health care, but also specialist-level care for many other health conditions. Under such a system, neither the patient nor the provider needs to travel, greatly reducing the time, cost, and stress incurred by both parties. In the KOTM model, significant cost savings were realized for Canada's health system. An evaluation of the telepsychiatry pilot program estimated a 74 percent cost reduction for each client-session.<sup>195</sup> Based on each of the above factors, KOTM serves as a strong example for Greenland as it seeks to expand its telehealth services.

Though the practice-based versus telemedicine-based collaborative care study took place in the United States, the study remains relevant to the Greenlandic context because it illustrates how a few centrally-located, telemedicine-based collaborative care teams can deliver effective mental health care to remote, underserved populations. In particular, the study shows that telemedicine-based care can in fact be more effective than care delivered in-person. Furthermore, the study demonstrates that telehealth services can alleviate concerns that local health workers will be overburdened by taking on substance abuse care delivery. In the study, there were greater improvements in outcomes for patients in the telemedicine-based collaborative care group as compared to the practice-based collaborative care group, even though there was no increase in the number of primary care visits.

In fact, a more robust telehealth system in Greenland may actually help to reduce the heavy workload placed on local health workers by providing them with easier access to specialist support and professional development opportunities.

There are also several other advantages to implementing a telehealth-based substance abuse therapy program in Greenland. For example, care can be provided year-round since neither party needs to travel. As a result, any form of care available in cities such as Nuuk (like individual, family, and group counselling or therapy specific to adolescents) can be made available across Greenland. In addition, telehealth-based services can be easily integrated into other service delivery models. For instance, the United States telemedicine case study demonstrates how telemedicine can be used to facilitate collaborative care. Furthermore, the case study on Alaska's BHA Program utilized videoconferencing as a supervisory tool, whereas the mhGAP-IG case study in Nepal used video training lectures. In community mobile treatment models, telehealth could also be used as a mechanism for providing engagement and aftercare. Overall, telehealth can support a flexible, multi-tiered approach to therapy.

Despite the many advantages of a comprehensive telehealth system in the Greenlandic context, several potential disadvantages remain. For example, patients may still need to contend with cultural and language barriers given that centrally-located providers will likely be Danish workers unfamiliar with Greenlandic language and culture. One way to address this issue is by incorporating an in-person therapy component. Alternatively, telehealth sessions could employ an on-site clinical navigator who can "help make the experience more personal, help patients navigate clinical encounters, and safeguard against undue emotional escalations."<sup>196</sup> Another potential issue is that telehealth systems may require intensive clinician involvement from both primary care providers and remotely located specialists.<sup>197</sup> This could overwhelm an already short-staffed system, particularly if, as interviewers suggested, existing psychotherapists without telehealth training are hesitant to adopt a new system. Lastly, telehealth interventions depend on reliable access to Wi-Fi, and connectivity may be limited outside of larger Greenlandic towns. Though telehealth can address many barriers to receiving substance abuse care in Greenland, mental health stakeholders will need to account for each of these potential issues as they expand upon current telehealth infrastructure and services.

## 7. CONCLUSION

Adolescent substance use remains a pressing public health concern in Greenland. Allorfik commissioned this project in order to explore treatment service delivery models that could be effective in combatting youth cannabis use, especially in remote areas. Through on-site interviews and focus groups with key stakeholders, the research team analyzed the landscape of youth substance use in Greenland, explored delivery constraints unique to the Greenlandic context, and identified several policy priorities for youth substance use interventions. In particular, stakeholders emphasized the importance of a multi-tiered approach to treatment that involves intersectoral collaboration, is culturally-relevant and youth-specific, addresses broader social issues contributing to substance abuse, allows youth to be treated in their home environment, and incorporates robust engagement and aftercare phases.

Based on a review of the health literature, the research team examined a series of substance abuse treatment service delivery strategies and case studies relevant to Greenland. The four service delivery strategies considered included task-shifting, collaborative care, community mobile treatment, and telehealth. As illustrated through eight case studies, each of these strategies has unique benefits and limitations. Overall, however, elements of each of these four service delivery strategies can be modified and combined to best meet the needs of Greenlandic youth and address each of the stakeholders' policy priorities. By considering the analysis and recommendations included in this report, the Ministry of Health and Allorfik can work towards developing an evidence-based national strategy to address youth cannabis use in Greenland.

# APPENDICES

## APPENDIX A: REPRESENTATIVE INTERVIEW QUESTIONS

For case-based interviewees:

- After reading the case study program, what elements would make this program successful with Greenlandic youth? What elements would make it unsuccessful?
- If this program were to be adapted to Greenlandic culture, what are ideas for features that are necessary to be relevant to Greenlandic teens? What should be avoided?
- The given program requires certain logistical requirements (length of meetings, number of meetings, technology, etc.), would these be possible in this context?
- Who in the current therapy infrastructure may be able to deliver this intervention? Are there other members of the community that may be trained to deliver it instead?

For thematic interviewees:

- How many cases of teen cannabis use does your organization receive? How does this caseload compare to your ideal capacity and personnel availability?
- How do your clients come into contact with your institution? How has your institution tried to engage youth in your services?
- Are there current efforts to change the social environment of families after they have received therapy? What collaboration does this require?
- What strategies are in place to extend health care into remote populations within Greenland? How can these be improved?

For the police officer interview:

- What is the police's relationship to the community? Is this the same for police in towns versus law enforcement in smaller settlements?
- How do you think cannabis is supplied to Greenland? How do youth usually access it?
- Say a teen is caught with cannabis, what happens next? What social institution takes the case? (i.e. the police, court, jail, social services, hospital)
- How is the youth's family involved in the process after they have been caught using cannabis?

**APPENDIX B: STRUCTURE OF AFGHANISTAN’S VILLAGE-BASED TREATMENT PROGRAMS<sup>198</sup>**

Pre Camp-based One to Three Months		Camp-based 01 to 21 days (Twenty-One Days)		Post Camp-based One Year	
Awareness		Detoxification 01 to 07 days		Aftercare First 3 months	
Motivation		Primary Treatment 08 to 21 days		Aftercare later 9 months	
<ul style="list-style-type: none"> <li>Community-based School, Mosque Health centres Social Functions</li> <li><b>Session Topic</b></li> <li>Dangers of drug use</li> <li>Opium is not medicine nor babysitting tools</li> <li>User should seek treatment</li> <li>Islamic teaching related to drug and drug use</li> <li>Mobilising community for support</li> <li><b>Community Involvement</b></li> <li>Shura Members</li> <li>Religious Leaders</li> <li>Local CBO/ Volunteers</li> <li>DEA Foundation Mobile Exhibit</li> <li>Camp site provided by community</li> </ul>	<ul style="list-style-type: none"> <li><b>Motivational Talk</b></li> <li>Motivational Interviewing</li> <li>With drug users</li> <li>Aims at treatment</li> <li><b>Counselling</b></li> <li>Individual/ Family/ Group</li> <li>Aims at treatment</li> <li><b>Primary Assessment</b></li> <li>Medical check-up</li> <li>Initial/Preliminary Interview</li> <li><b>Screening</b></li> <li>Clients to be screened out</li> <li>Not fully ready to enter treatment</li> <li>With chronic diseases</li> <li>Over 65 years of age</li> <li>With no family support</li> <li><b>Referral</b></li> <li>To residential treatment</li> <li>Other healthcare services</li> </ul>	<ul style="list-style-type: none"> <li><b>Assessment</b></li> <li>Medical</li> <li>Psycho-Social</li> <li><b>Treatment Planning</b></li> <li>Individual</li> <li>Based on assessment results</li> <li><b>Pharmacotherapy</b></li> <li>Symptomatic Medications</li> <li><b>Daily Review</b></li> <li>Doctor/ Nurse visit</li> <li>Counsellor visit</li> <li><b>Counselling (daily)</b></li> <li>Individual and group</li> <li>Focus on drug craving and withdrawal symptoms</li> <li><b>Physical Health</b></li> <li>Nutritious Food</li> <li>Food Supplement</li> <li>Multivitamins</li> </ul>	<ul style="list-style-type: none"> <li><b>Client Psycho-Education</b></li> <li>Daily one session of an hour duration</li> <li>Lecture or group therapy (6 sessions)</li> <li><b>Psycho-Education Sessions</b></li> <li>Addiction as disease</li> <li>Medical complications</li> <li>Co-dependency</li> <li>Relapse and recovery</li> <li>Islam and addiction</li> <li><b>Counselling</b></li> <li>Individual (6 sessions)</li> <li>Group (daily)</li> <li>Family (6 sessions)</li> <li><b>Life Skills Session</b></li> <li>Daily one session</li> <li>Focus on relapse prevention and recovery</li> <li><b>Daily Recreation</b></li> <li>Music/ Cultural Activities</li> <li>Sports&amp; Exercise</li> </ul>	<ul style="list-style-type: none"> <li><b>Self-Help Group</b></li> <li>Peer Support Group (monthly of an hour duration)</li> <li><b>Counselling</b></li> <li>Individual (if needed)</li> <li>Home-based</li> <li><b>Follow-up contact</b></li> <li>Individual/ Family</li> <li>By Shura members</li> <li>Telephonic or home-based</li> <li>To monitor recovery</li> <li>Monthly</li> </ul>	<ul style="list-style-type: none"> <li><b>Self-Help Group</b></li> <li>Peer Support Group (weekly of an hour duration)</li> <li><b>Counselling</b></li> <li>Individual (if needed)</li> <li>Home-based</li> <li><b>Follow-up contact</b></li> <li>Individual/ Family</li> <li>By Shura members</li> <li>Telephonic or home-based</li> <li>To monitor recovery</li> <li>Weekly</li> </ul>
<b>Documentation</b>					
<ul style="list-style-type: none"> <li>Awareness Record</li> <li>Seminar</li> </ul>	<ul style="list-style-type: none"> <li>Medical Record</li> <li>Consent Form</li> <li>Directory of organisations</li> </ul>	<ul style="list-style-type: none"> <li>Medication Chart</li> <li>Assessment Form</li> <li>Treatment Plan</li> </ul>	<ul style="list-style-type: none"> <li>Counselling Notes</li> <li>Psycho-Education Record</li> <li>Life-Skills Training Record</li> <li>Discharge Form</li> </ul>	<ul style="list-style-type: none"> <li>Aftercare Register</li> </ul>	<ul style="list-style-type: none"> <li>Aftercare Register</li> </ul>

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