Healthy People
Healthy Futures

Methadone Maintenance Treatment Guidelines

For

New Brunswick Addiction Services

July 2005

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PREFACE

Methadone maintenance treatment is the component of a comprehensive treatment and prevention strategy to address opioid dependence and its consequences. A review of the literature indicates that methadone maintenance treatment is considered an effective means of reducing the use of other opioids, the use of other substances, criminal activity, and the rate of mortality. It has also been found to reduce injection-related risk behaviors, other risk behaviors for transmission of human transmission of HIV (and potentially the transmission of hepatitis C virus (HCV) and other blood-borne pathogens). Methadone treatment program improves physical and mental health, social functioning, quality of life, and pregnancy outcomes.

The Department of Health and Wellness produced in 2004 the New Brunswick Provincial Health Plan titled: '*Healthy Futures: Securing New Brunswick's Health Care System' which embraces the following vision.*

VISION

A single, integrated provincial health care system that is patient-focused and community-based, providing health services in the official language of choice at a cost New Brunswickers can afford.

Healthy Futures sets out four strategic priorities which guide new investments, actions and service choices to secure New Brunswick's health care system in the future. They are: 1- Improving Population Health, 2- Better Access to Care and Services, 3- Building Health Human Resources, and, 4- Accountability and Evidence-based Decision Making.

Under the *Better Access to Care and Services Strategic Priority*, the NB Provincial Health Plan has committed to respond to the need for a methadone maintenance service under the auspices of Addiction Services by developing an organized methadone maintenance service program for people suffering from an opiate addiction. The service shall reflect evidence-based "best practices" that include administering, monitoring compliance, counseling and long-term follow-up, and be phased in around the province.

Over the years, the New Brunswick Addiction Services has become more diversified and specialized. Outpatient services have now become an integral component of the New Brunswick addiction treatment model. The outpatient social workers provincial committee completed the document *Treatment model for outpatient Social Workers (2003),* which is referenced in the following guidelines.

ACKNOWLEDGEMENTS

In September 2004, Addiction Services and the Department of Health and Wellness created the « Methadone Maintenance Program Framework Task Group » with the mandate to develop a framework for the delivery and evaluation of a collaborative, organized methadone maintenance program for people suffering from an opiate addiction.

Members of the task group are:

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Members of the task force acknowledge the contribution of the following people: Donna Mulholland**,** Marjorie Mullin and Nancy Hicks.

The guidelines presented in this document will assist the Regional Health Authorities, Addiction Services and practitioners to implement a Methadone Maintenance Program in a consistent matter across the province. Clients will receive equivalent services within these guidelines regardless of the region he/she resides in.

In January 2005, the Province of New Brunswick announced the opening of four new methadone treatment clinics in Saint John, Miramichi, Fredericton and Moncton.

In June 2005, Applied Management Consultants was retained to produce the New Brunswick Methadone Maintenance Treatment Guidelines in keeping with the work of the Task Group, Health Canada's Methadone Maintenance Treatment Best Practice (2002), current literature and better practices in Canada.

Proposed guidelines for physicians prescribing and pharmacists dispensing methadone for opioid dependency that are evidence-based, multi-disciplinary, uniform, and community-based, are presented in Appendices 4 & 5 of this report. These are in keeping with two published reports: The *Methadone Distribution Guidelines* approved by Council of the New Brunswick Pharmaceutical Society (January 18, 2004), and, the *Methadone Maintenance Guidelines* published in 2001 by the College of Physicians of Ontario, the Centre for Addiction and Mental Health and the Ontario College of Pharmacists. It is recommended that these serve as preliminary guidelines until such time that the College of Physicians and Surgeons of New Brunswick adopt methadone maintenance treatment provincial guidelines. These proposed guidelines will require further involvement, review and endorsement from the College of Physicians and Surgeons of New Brunswick and the New Brunswick Pharmaceutical Society.

These methadone maintenance treatment guidelines, together with physician and pharmacist guidelines provide provincial expectations and recommendations for methadone maintenance treatment programs and services in New Brunswick.

EXECUTIVE SUMMARY

Methadone is a prescription drug used to safely treat opioid addiction for over forty years. Furthermore, methadone maintenance treatment can be an important harm reduction strategy to prevent the transmission of HIV and other blood-borne pathogens, while assisting those using opioids to reduce illicit use, needle sharing and criminal activity associated with opioid use.

There is strong consensus about the overall effectiveness of MMT. In their review of the evidence, Hall, Ward, and Mattick (1998b, 50) conclude that 'taken as a whole, the evidence provides good reason for believing that methadone maintenance is an effective form of treatment for opioid dependence on average'. According to the National Consensus Development Panel on Effective Medical Treatment of Opiate Addiction as cited by Leshner (1999), methadone treatment is the drug abuse treatment modality that has been most rigorously evaluated and it has been found to be highly effective in retaining a large proportion of clients/patients in treatment by reducing intravenous drug use, human immunodeficiency virus (HIV) rates, criminal activity, and by enhancing their social productivity. The most effective programs are those that provide methadone as well as a range of medical, behavioral and social services.

The New Brunswick Methadone Maintenance Treatment Guidelines are based on best practices throughout Canada and other countries. These provincial guidelines aim the most effective delivery of services within a continuum of care approach. The New Brunswick model of methadone treatment recognizes three (3) stages of a successful and effective MMT program: 1) stabilization, 2) transition, and, 3) community phase. These will be described in more detail and are consistent with the research and literature.

The Methadone Maintenance Treatment (MMT) team is involved in several key areas of methadone maintenance treatment, such as the initial referral, screening, problem severity assessment, direct interventions with the individual, interventions on behalf of the individual, case management, and evaluation/outcome assessments. The MMT team's involvement with opioid dependent clients addresses all the usual complex dependency issues, such as drug use, physical, mental, social, and legal health concerns, plus the potential involvement of one or more therapeutic drugs. The MMT team members play a vital role in providing relapse prevention education and counseling to clients on methadone. Specific skills are required, depending on each team member's level of involvement in the methadone maintenance treatment program.

The New Brunswick Methadone Maintenance Treatment Guidelines will address several key topics including:

- Effects of opioids,
- Pharmacology of methadone,
- Methadone treatment overview,
- Screening process,
- New Brunswick model of MMT services,
- Factors that influence the effectiveness of the MMT program,
- Other issues related to methadone maintenance treatment,
- Management of record keeping in methadone treatment,
- Program policies, and
- Research and evaluation.

EFFECTS OF OPIOIDS

Opioids briefly stimulate the higher centres of the brain but then depress activity of the central nervous system. Opioids reduce anxiety and pain, and produce euphoria and a sense of well-being. Short-term effects appear soon after a single dose and disappear in a few hours. Immediately after injecting an opioid, the individual feels a surge of pleasure or a "rush". Hunger, pain, and sexual urges rarely intrude following opioid injection. The dose required to produce this effect may at first cause restlessness, nausea, and vomiting.

Opioid overdose is a particular risk with illicit use where the actual substance and strength may not be accurately known. Signs of opioid overdose include: the individual cannot be roused; pupils contract to pinpoints; skin is cold, moist, and bluish; and profound respiratory depression. For the opioid dependent individual, opioid withdrawal symptoms may occur within a few hours after the last dose of opioids. During withdrawal, the individual experiences the exact opposite of the drug effects of opioids, including increased anxiety, pain, uneasiness and agitation. Opioid withdrawal is generally less dangerous than alcohol, barbiturate, and benzodiazepine withdrawal.

PHARMACOLOGY OF METHADONE

Methadone is a synthetic opioid with actions similar to those of morphine. Methadone has three important functions: relief of pain for about 6 hours; suppression of opioid withdrawal and craving for about 24 hours; and a mood stabilizing effect for longer periods. Clients should discuss all drug use and prescription drug use with their methadone prescribing physician and/or their pharmacist(s).

When an individual is stabilized on methadone, the administration of a single adequate dose (usually between 60 to 120 mg) will suppress withdrawal and craving for about 24 hours without causing euphoria or sedation. Individuals can therefore function normally and are able to perform mental and physical tasks without impairment. In sufficient doses, methadone "blocks" the euphoric effects of other opioids.

METHADONE TREATMENT OVERVIEW

Methadone treatment goals include: reducing harms of drug use; treating medical and psychiatric co-morbidity; bringing substance dependence into remission; and achieving the highest possible level of psycho-social function. In New Brunswick, the MMT program consist of direct collaboration between the clients, the MMT team members which include addiction service counselors, nurses, social workers, pharmacists, physicians. Other health professional are consulted as required.

Abstinence-based alcohol and drug treatment is only effective for a small number of opioid dependent individuals. Research suggests that for opioid-dependent individuals, counseling alone is not effective because the withdrawal and cravings are so intense. Methadone alone may work if prescribed in sufficient doses to control withdrawal and craving. Methadone plus skilled counseling has better outcomes than methadone alone.

SCREENING PROCESS

The Screening Process is the first step in the motivational assessment process that is to be completed by a trained MMT team member. The complete process involves screening, problem severity assessment, assessment feedback, and recovery planning. If the screening suggests that the individual is opioid dependent, the person doing the assessment will present findings to the MMT team who through a consultative process, will make the decision to admit the client to the MMT program. Other options include treatment services such as detoxification, outpatient, or inpatient treatment.

NEW BRUNSWICK MODEL OF MMT SERVICES

The New Brunswick Model of MMT services is based on the following guiding principles: accessibility to services with the right of the client to choose treatment goals; program quality based on a client-centered approach and provided by a multidisciplinary team; client/MMT team roles and responsibilities in the delivery of a individualized treatment plan; and, a treatment process aimed at providing the most appropriate treatment based on individual needs and strengths. Methadone Maintenance Treatment is a developmental growth process, with specific stages and tasks, which must be completed before moving onto the next treatment stage. The three stages are 1) stabilization, 2) transition, and, 3) community stage.

FACTORS THAT INFLUENCE THE EFFECTIVENESS OF MMT

Individual-related and program-related factors influence the effectiveness of Methadone Maintenance Treatment. Despite the lack of consensus about how treatment should be delivered, there is significant amount of information about individual and program factors that influence the effectiveness of methadone maintenance treatment programs. Efforts to retain clients in treatment, is key in measuring effectiveness. Best practices have shown that longer lengths of time spent in treatment are related positively to treatment outcomes.

OTHER ISSUES RELATED TO METHADONE MAINTENANCE TREATMENT

Evidence based counseling practices are recommended as the basis for methadone team/client interactions. Special consideration should be given to case management of situations and circumstances such as: transfers to other methadone-prescribing physicians; methadone & pregnancy; concurrent disorders; adolescent clients; and offenders in custody.

MANAGEMENT OF RECORD KEEPING IN METHADONE TREATMENT

Good communication among the MMT team members is essential to protect the privacy and confidentiality of health information in the management of individuals prescribed methadone for opioid dependency. The MMT treatment team will comply with federal and provincial regulatory requirements. The sharing of information between the MMT team members and other allied health professionals as necessary will require a signed client consent form authorizing communication and release of information. The information that is to be shared shall be on a need to know basis and applicable to the medical management and treatment of the client.

PROGRAM POLICIES

In order to achieve effective delivery of methadone maintenance treatment programs, program policies must be developed consistently throughout all addiction services in the province. It is recommended that these policies be developed and reviewed periodically through the provincial advisory committee and solicit the participation of the MMT team members and community partners. The participation of clients in developing policies dealing specifically with their roles and responsibilities will further achieve the goals and the objectives of the provincial MMT programs and assure comprehensive collaboration and partnerships, essential for ongoing effectiveness of service delivery.

RESEARCH AND EVALUATION

There is a need for more research on methadone maintenance treatment. For example, making methadone maintenance more client/patient-centered, and conducting research on outcomes that are priorities for clients/patients are key areas (Hall et al., 1998a, 3-4). Making substance use treatment 'more attractive and acceptable to the general public, as well as to decision makers and funding agencies' (Stoller & Bigelow, 1999, 33) by evaluating the cost-effectiveness and benefits of treatment is another important area of study.

There is a valuable, but limited, body of research on delivering MMT programs to specific populations with diverse needs. In particular, more research is needed on effective strategies to address the needs of those who use multiple substances, women, pregnant women, and people suffering from co-morbid medical conditions (including those who have acquired HIV, HCV or other blood-borne pathogens) and/or mental health disorders. Implementing and evaluating the effectiveness of MMT delivery strategies within correctional settings remains another challenge.

1 INTRODUCTION

Methadone maintenance treatment (MMT) was first introduced as a means of treating heroin withdrawal symptoms in opioid dependent persons almost forty years ago. Methadone was developed in Germany, before the Second World War, and was used as a substitute analgesic for morphine. In the early 1960's, Dole and Nyswander demonstrated the feasibility of using methadone as maintenance medication although it was actually a Canadian researcher, Dr. Robert Halliday, who set up what may have been the first methadone maintenance treatment program in British Columbia in 1963. Methadone is a prescription drug used to safely treat opioid addiction for over forty years (Ball & Ross, 1991; Farrell et al., 1994).

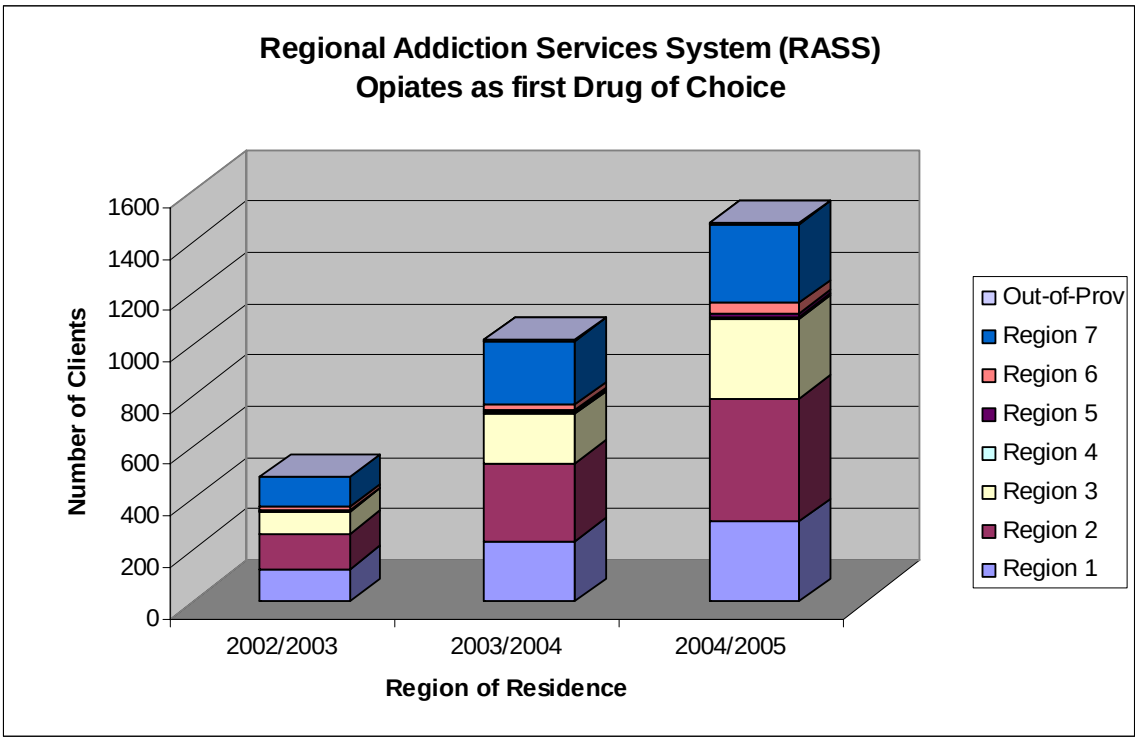
Today, in many parts of the world, MMT is widely recognized as a key component of a comprehensive treatment and prevention strategy to address opioid dependence. In Canada as in many other countries, there is a national level regulatory framework for methadone prescription. The Office of Controlled Substances - Health Canada, works with provincial/territorial governments and medical licensing bodies to facilitate increased access to methadone maintenance treatment. To date, several provinces have developed – or are in the process of developing – guidelines and training for practitioners interested in providing methadone maintenance treatment. Methadone can be prescribed only by physicians who have received an exemption under the *Controlled Drugs and Substances Act.*

The number of people who are prescribed methadone in Canada has risen significantly in recent years. The following table presents the number of clients by health region who identified opiates as their first drug of choice. These numbers represent only those clients who have been assessed through the New Brunswick Addictions Services Centers and have increased from 484 in 2002-03 to 1,470 in 2004-05 with the highest increase being in more urban centers in the province as depicted in Tables 1 and 2.

Table 1: New Brunswick assessment clients for opiates by Health Region

	2002/2003	**2003/2004**	**2004/2005**
Region 1	126	232	309
Region 2	136	303	480
Region 3	85	193	310
Region 4	1	7	8
Region 5	4	8	15
Region 6	14	21	40
Region 7	117	249	304
Out-of-Prov	1	2	4
Province	484	1015	1470

Table 2: Opiates as first Drug of Choice by Health Region for 2002-03, 2003-04 and 2004-05



Source: Regional Addiction Statistical System (RASS)

In 1995, methadone was comprehensively re-evaluated by the National Institute on Drug Abuse in the United States and found to be effective for opioid addiction. Researchers found that methadone in adequate dosage and with supportive therapy:

- reduces illicit opioid use
- reduces criminal activity
- improves social health and productivity
- improves physical health
- reduces HIV transmission
- improves pregnancy outcomes in opioid addicted women is safe for long-term use

The number of clients who are accessing Addiction Services has increased at a rate of 1.8% in the last three years. Out of these admissions, 6.2% are related to opiates as their first choice. During this same period, clients accessing addiction services for an opiate as being the drug of choice has increased 239.18%.

It is as a result of this increase that the Department of Health and Wellness has encouraged the development of guidelines and the adoption of best practices to support the delivery of uniform, community-based, and comprehensive methadone maintenance treatment services in New-Brunswick. Methadone maintenance treatment can be an important harm reduction strategy to prevent the transmission of HIV and other blood-borne pathogens. Furthermore, this form of treatment has potential to assist those using opioids to reduce illicit use, needle sharing, and criminal activity associated with opioid use.

Opioid dependency and addiction generally, is a complex process involving many biological, psychological, social and spiritual factors. Opioid dependent clients have a high frequency of psychiatric co-morbidity. Many individuals may lack necessary coping strategies and other life skills that allow them to function successfully.

There is strong evidence to support improved outcomes when methadone treatment for opioid dependence includes addiction counseling (Farrell et al., 1994; Millar, 1998; Moolchan & Hoffman, 1994; Roberts et al., 1999). Methadone maintenance treatment enables the individual to make significant changes, facilitates return of function, and complements the goals of traditional alcohol and drug recovery.

A Health Canada literature review (Brands, Marsh, Hart & Jamieson, 2002) indicates that methadone treatment is effective in reducing:

- opioid use
- stimulant use, e.g. cocaine
- injection drug use and related risk behaviors, e.g. needle sharing
- criminal activity
- opioid overdose other risk behaviors for transmission of HIV and STDs, e.g. unprotected sex

The MMT team must be involved in several key areas of methadone maintenance treatment, such as the initial referral, screening, problem severity assessment, direct interventions with the individual, interventions on behalf of the individual, case management and evaluation/outcome assessments.

The MMT team's involvement with opioid dependent clients address all the usual complex dependency issues, such as drug use, physical, mental, social, and legal health concerns, plus the potential involvement of one or more therapeutic drugs. The MMT team members have an important role in providing relapse prevention education and counseling to clients on methadone. Specific skills are therefore required, depending on each team member's level of involvement in the methadone maintenance treatment program.

Methadone maintenance treatment has also been found to improve:

- general health
- social functioning
- self esteem
- family relationships
- ability to parent
- pregnancy outcomes
- access to counseling
- money management
- employment

In particular, team members need to be knowledgeable about:

- Substance use and dependency
- Opioid dependency in particular
- Physical, mental, social health as well as legal aspects of opioid dependency
- Use of methadone in care and treatment of opioid dependency
- Methadone treatment processes and outcomes

Table 3: Roles in Methadone Treatment

MMT Team members

- **Motivational assessment process**
- **Education**
- **Health Promotion**
- **Community Mobilization**
- **Intervention/referrals**
- **Case management**
- **Evaluation/outcome assessments**

Physician

- **Medical Assessments**
- **Diagnosis**
- **Prescribing take-home methadone (carries)**
- **Referrals for physical and mental health assessments**

Pharmacist

- **Dispensing methadone**
- **Brief encounters**
- **Observation**
- **Intervention**
- **Education**

2 PHILOSOPHY, GOALS AND OBJECTIVES

The Department of Health and Wellness endorses the following philosophy for the delivery of methadone maintenance treatment provided by the Regional Addiction Services in New Brunswick.

NB Methadone Program Philosophy Statement

We believe that all clients have the right to a safe and effective treatment for their opioid dependence and that it is our responsibility to provide an environment conducive to the development of a healthy rehabilitation process.

We will strive to provide a client-centered, multi-disciplinary, integrated and seamless service for clients and their families. We will work to empower the client to take primary and personal responsibility for his/her behaviors and recovery and encourage the client's active participation in all aspects of their care. Within the limits of safety, we will work to engage, retain and maintain the client for as long as the treatment is beneficial and the client is compliant with a mutually agreed-upon treatment agreement.

Using thorough assessments, screening for compliance and counseling, we will work to provide the tools required by all clients to re-integrate a healthy lifestyle and accomplish their personal goals.

The New Brunswick Methadone Maintenance Treatment Program provides methadone maintenance treatment through the NB Regional Addiction Services in Miramichi, Saint John, Fredericton and Moncton (refer to **Appendix 1** for a listing of Addiction Services offering MMT programs). Each region will provide a confidential and comprehensive community based service which will include a client centered approach, accessibility, a continuum of care service delivery model and support through integrated community services; medical care, mental health, substance abuse treatment, professional counseling and support, health promotion, disease prevention and education based on current best practices in the field.

This will be accomplished by:

1) Fostering healthy lifestyles by eliminating or reducing the harmful impact of substance dependency of opioids on individuals, families and the community.

2) Emphasizing the mobilization of individuals and communities to promote dependence free lifestyles. Treatment requires a growing commitment by the individual and society to change in attitude, behaviour and lifestyle. Treatment is client centred, decentralized, comprehensive, innovative, evidence based and monitored.

3) Providing a full range of services, along with flexibility, to adapt to ever changing needs because of the complex nature of prescription drug dependency. These services are delivered by qualified and competent professionals guided by a Code of Ethics and adherence to the principle of confidentiality.

4) Monitoring service and continuously evaluating to ensure high standards of quality care and cost effectiveness. It is recognized that a variety of outcome measures are necessary for appropriate evaluation of the services offered.

Goals and Objectives

The New Brunswick Methadone Maintenance Treatment Programs provided under the approved Regional Addiction Services adhere to the following goals and objectives.

Goals

- To provide a safe, effective, and efficient stabilization and maintenance treatment program for opioid dependent clients
- To provide an environment conducive to the treatment and rehabilitative process in keeping with the NB Model of Methadone Maintenance Treatment Process
- To function within these guidelines of treatment, standards, best practices and protocols.

Objectives

- To initiate and implement a thorough, ongoing assessment process that includes relevant past and current data throughout the term of client contact, for utilization in treatment and rehabilitation planning. This process involves a collaborative approach with prescribing physicians, dispensing pharmacists and community partners.
- To respond supportively to the clients' immediate needs and social pressures through situational and/or crisis counseling
- To implement a learning process that will involve the client and/or significant other in recognition of his/her condition and engagement in their recovery process.
- To engage clients to take responsibility and commit to their treatment, stabilization and stages of treatment process.
- To encourage family members and significant persons to assist the client throughout all phases of the treatment process.
- To encourage the clients' active participation in consolidating and accepting a treatment plan.

3 GOVERNANCE

Provincial Advisory Committee (PAC)

A provincial committee will meet as required: to network, solve problems, and support the Provincial Methadone Maintenance Treatment Program and to ensure consistency and accountability in the delivery of service.

The PAC role includes but is not limited to:

- Developing and monitoring standards,
- Developing and monitoring policies,
- Addressing issues from a provincial perspective, and,
- Monitoring ongoing evaluation initiatives as approved by the Department of Health and Wellness
- Performing other tasks as assigned by the Department of Health and Wellness

Membership:

- Regional Directors of Addiction Services or designate
- Representative N.B. Prescription Drug Program
- Representative Department of Health and Wellness
- Corrections Canada Regional Methadone Coordinator (all Atlantic Provinces)
- Representative College of Physicians
- Physicians involved in Methadone Program
- N.B. Medical Society
- Director of R.C.M.P. Drug Awareness
- Pharmaceutical Society

Regional Stakeholders Group

This committee shall be established in each region and will meet regularly:

- To identify opportunities for collaboration in the community
- To raise awareness around issues of opioid use and methadone maintenance
- To identify gaps in service and needs from the community perspective
- To support the Methadone Maintenance Treatment Team by providing access to expertise, resources and consultation
- To ensure transparency in service delivery

Membership:

- Medical Staff
- Nursing Staff
- R.H.A. administration
- Family and Community Services
- Public Health
- Mental Health
- Addiction Services
- First Nations
- R.C.M.P. and local police
- Pharmacies
- Family members
- Maternity "newborns"
- Clients
- Non-government organizations

Regional Methadone Maintenance Treatment Team

The Methadone Maintenance Service will utilize a holistic multidisciplinary collaborative approach. The Regional Director of Addiction Services shall be responsible for the overall delivery of the Methadone Maintenance Treatment Program in their region.

MMT team members will include at a minimum the following:

- Prescribing physician
- Nurse
- Social Worker
- Pharmacist
- Administrative Support
- MMT Coordinator
- Other health professionals as required and as budget permits

The team members will perform their respective roles and collaborate on all issues of service delivery and client care. The coordination of the MMT program may be assigned to a specific individual or to one of the above professionals on a rotating basis.

The team's role will include responsibility for all decisions concerning admission and discharge and will conduct case reviews with input from clients and family as appropriate.

Strong linkages will be developed and maintained with allied professional and other services to ensure seamless service and continuity of care. These allied professionals, when directly involved with a client will become part of the MTT Team for the client. The following table illustrates potential partners and linkages in the delivery of an effective MMT program.

Table 4: Potential Partners in a Comprehensive Approach to MMT

Methadone Maintenance

Medical	Other Substance Use Treatment	Counselling and Support	Mental Health	Health Promotion, disease Prevention and Education	Social Services	Child, Youth, Family Services	Legal/ Justice	Education	Employment	Resources	Outreach & Advocacy
• hospital services • emergency rooms • primary care • pain management • HCV treatment • obstetrics • specialist care • pharmacy dispensing • lab work	• withdrawal management (detox) • outpatient / patient • residential • mutual support • advocate / ombudsman	• individual • group • women's/ survivors • couple • family	• psychiatrists • psychologists • community mental health programs	• public health • community health centres • nutrition • HIV prevention • HCV prevention	• social assistance • housing • transportation • child care support • training	• child welfare • child care • youth services • parenting supports	• victims' services • police • parole • probation • legal services • crowns • corrections	• literacy • academic programs • life skills • professional • general public	• vocational skills / training • employment services / programs • employee assistance	• needle exchange • shelters • food banks • spiritual / ethno-cultural organizations • recreational • community advisory groups • service groups • private sector • women's services • friendship centres	• street workers • peer-based services

Source: Health Canada, Best Practices – Methadone Maintenance Treatment (2002)

4 EFFECTS OF OPIOIDS

Opioids briefly stimulate the higher centers of the brain but then depress activity of the central nervous system. Opioids reduce anxiety and pain, and produce euphoria and a sense of well-being. Short-term effects appear soon after a single dose and disappear in a few hours. To better understand the context of the discussion, definitions relative to MTT are offered in **Appendix 2.**

Acute opioid withdrawal symptoms result if use of the drug is reduced or stopped abruptly and usually peak about 72 hours after the last dose and subside after a week. Bodily functions, such as sleep patterns, bowel disturbance, and sexual dysfunction may not return to normal levels for as long as six months.

The effect of opioids, as with other drugs, is dependent on several factors:

- amount taken
- frequency of use
- other substance use
- past drug experience
- route of administration
- environment/circumstances in which drugs are taken

Acute opioid withdrawal symptoms include:

- tearing
- sweating
- runny nose
- uneasiness
- craving for the drug
- dilated pupils
- loss of appetite
- goose pimples
- irritability
- tremor
- bone, joint pain
- severe insomnia
- violent yawning
- weakness
- nausea, vomiting, diarrhea
- chills, fever
- muscle spasms
- abdominal pain

With **moderately high doses** the individual goes on *the nod*, an alternately wakeful and drowsy state during which:

- body feels warm,
- extremities feel heavy
- mouth feels dry
- breathing becomes gradually slower
- world is forgotten

Opioid overdose is a particular risk with illicit use where the actual substance and strength may not be accurately known. Signs of opioid overdose include:

- individual cannot be roused
- pupils contract to pinpoints
- skin is cold, moist, and bluish
- profound respiratory depression

For the opioid-dependent individual, opioid withdrawal symptoms may occur within a few hours after the last dose of opioids. During withdrawal, the individual experiences the exact opposite of the drug effects of opioids, including increased anxiety, pain, uneasiness and agitation. Opioid withdrawal is generally less dangerous than alcohol, barbiturate, and benzodiazepine withdrawal.

5 PHARMACOLOGY OF METHADONE

Methadone is a synthetic opioid with actions similar to those of morphine. When necessary, opiates can be prescribed along with methadone to treat chronic or post-operative pain.

Methadone has three important functions:

- relief of pain for about 6 hours
- suppression of opioid withdrawal and craving for about 24 hours
- a mood stabilizing effect for longer periods

The pharmacology of methadone makes it a very useful drug for treating opioid dependence. The advantageous features include the fact that methadone:

- is taken orally, which avoids risks associated with injection drug use
- has a long half-life, which means only a single daily dose is needed
- accumulates in the body, which means a steady blood level is achieved easily
- effectively suppresses opioid withdrawal symptoms, which increases comfort/compliance among clients/patients
- develops cross-tolerance (or blockades) to the effects of illicit opioid use, which decreases use of illicit opioids during maintenance
- has no serious long-term side effects when used on a long-term basis (Novick et al. as cited by Ward et al., 1998, 207; Walsh & Strain, 1999, 50-51)

Methadone is mainly metabolized by the liver. A very small percentage of individuals metabolize methadone rapidly (for example, pregnant women and those involved in intense physical activity) and they can experience withdrawal even on a relatively high methadone dose. Split doses may be necessary for these individuals.

Clients should discuss all drug use and prescription drug use with their methadone prescribing physician and their pharmacist. Certain drugs can increase the effects of methadone.

Prescribed methadone is used in treating opioid dependency in methadone maintenance treatment. In such treatment this involves the daily administration of methadone over an extended time period. Methadone, for opioid dependency treatment, is only dispensed from a pharmacy as an oral drink in a flavored juice such as orange ‘Tang’. Methadone is absorbed within 45 minutes and its effect usually peaks within 2-3 hours after drinking the medication. Methadone may be administered quite differently when used in pain management.

When an individual is stabilized on methadone, the administration of a single adequate dose (usually between 60 to 120 mg) will suppress withdrawal and craving for about 24 hours without causing euphoria or sedation (Farrell et al., 1994; Roberts et al., 1999). Individuals can therefore function normally and are able to perform mental and physical tasks without impairment. In sufficient doses, methadone "blocks" the euphoric effects of other opioids.

Methadone can be dangerous if misused. The real dangers of respiratory failure and death exist with doses greater than 30 mg for individuals not accustomed to methadone. A dose of as little as 10 mg can be fatal to a child.

Side effects of methadone can vary, depending on the individual. An increase in methadone dosage may cause drowsiness for 3 days, making driving and other activities which require alertness, hazardous.

If methadone is abruptly discontinued, abstinence syndrome will develop with many of the symptoms previously described for opioid withdrawal.

Methadone has a long elimination half-life of 24 to 36 hours, which means that, 24 hours after the initial dose, half of the original dose remains in the body (Lowinson et al., 1997, 408). Methadone can accumulate in the tissues during successive doses (Ward et al., 1998h, 213). This means the level of methadone can increase, even without an increase in the doses level (Lowinson et al., 1997, 408). Accumulation continues until a steady-state is achieved after 4-5 half lives (Lowinson et al., 1997, 408). As it can take five days to achieve a steady state plasma level of methadone – and given that Caplehorn has shown that methadone's long half-life can result in an accumulation of methadone and a resulting overdose one or two weeks after treatment begins – Brands et al., (2000, 236-237) suggest that dose adjustments in the range of 5-15 mg of methadone should be made only every three or four days, 'depending on the severity and daily duration of the patient's withdrawal symptoms or drugs cravings`.

6 METHADONE TREATMENT OVERVIEW

The Methadone Maintenance Treatment goal is to provide the opiate-dependent individual with the opportunity to achieve optimum health by:

- Reducing the inherent dangers associated with needle use including HIV and other blood-borne pathogens
- Reducing the crime associated with drug acquisition, reducing the drug use/abuse/dependence
- Enhancing positive lifestyle changes

Methadone treatment for opioid dependence is delivered in methadone maintenance treatment programs in addiction services, family medical practice offices, and correctional institutions in New Brunswick. The MMT team members (addiction service counselors, nurses, social workers, pharmacists, methadone prescribing physicians, and other health professionals) work in collaboration with the client in New-Brunswick. All healthcare providers promote the normalization of client lifestyles and behavior patterns in methadone treatment.

Abstinence-based alcohol and drug treatment is only effective for a small number of opioid dependent individuals. Research suggests that for opioid-dependent individuals, counseling alone is not effective because the withdrawal and cravings are so intense (Ward, Mattick & Hall, 1998). Methadone alone may work if prescribed in sufficient doses to control withdrawal and craving. Methadone plus skilled counseling has better outcomes than methadone alone (Farrell et al., 1994; Millar, 1998; Moolchan & Hoffman, 1994; Roberts et al., 1999).

The MMT team members may provide referral, screening, outpatient counseling, crisis management and orientation services to individuals presenting with opioid and other substance use. Once individuals are prescribed methadone for opioid dependency, the MMT team shall provide ongoing problem severity assessment, assessment of relapse triggers, interventions/referrals, case management, and advocacy and evaluation/outcome assessment services.

For entry to Methadone Treatment Services, individuals must meet the following criteria:

- Physically and/or psychologically dependent on opiates
- Capable of giving informed consent
- Medically manageable as determined by the MMT team
- Agreement with the individualized treatment plan
- Have reached the age of majority (19 years)

Information on methadone treatment for opioid dependency in New Brunswick (the what, where, why, who, when, how, and how much) is routinely provided to clients and the general public by the MMT team members. Information is to be communicated in a respectful way using simple concepts and language. In addition, the MMT team members have a responsibility to educate the public on the benefits and risks of methadone treatment. **Appendix 3** provides general information which may be provided by new clients during their initial orientation.

During **orientation** of new clients, the treatment team seeks to:

- provide information about healthcare providers involved in methadone treatment
- outline addiction services
- outline client responsibilities
- address client expectations, questions and concerns
- educate clients to MMT team, community pharmacists, and other community service providers

7 SCREENING PROCESS

The **Screening Process** is the first step in the motivational assessment process that is to be completed by a trained MMT team member. The complete process involves screening, problem severity assessment, assessment feedback and recovery planning as depicted in Table 5.

The MMT team member during **screening** seeks to:

- Identify the opioid use problems the individual is facing.
- Determine the extent to which the problems are alcohol and/or drug related.
- Determine whether it is necessary to initiate a problem severity assessment and referrals to additional services.
- Develop rapport and trust between the MMT team and the individual.
- Engage the individual so that he/she is motivated to meet again and continue with the motivational assessment process.

Initial contact is established through an interview process with the individual. Screening information is collected in five areas:

- Drug Use
- Physical Health
- Mental Health
- Social Health
- Legal Health

Health conditions associated with injection drug use include:

- Endocarditis
- Abscess
- Blood clots and embolisms
- Septicemia
- HIV and AIDS
- Hepatitis B, hepatitis C, and other liver diseases
- Cellulitus and phlebitis
- Adverse drug interactions
- Bacterial pneumonia
- Pulmonary complications
- Overdose

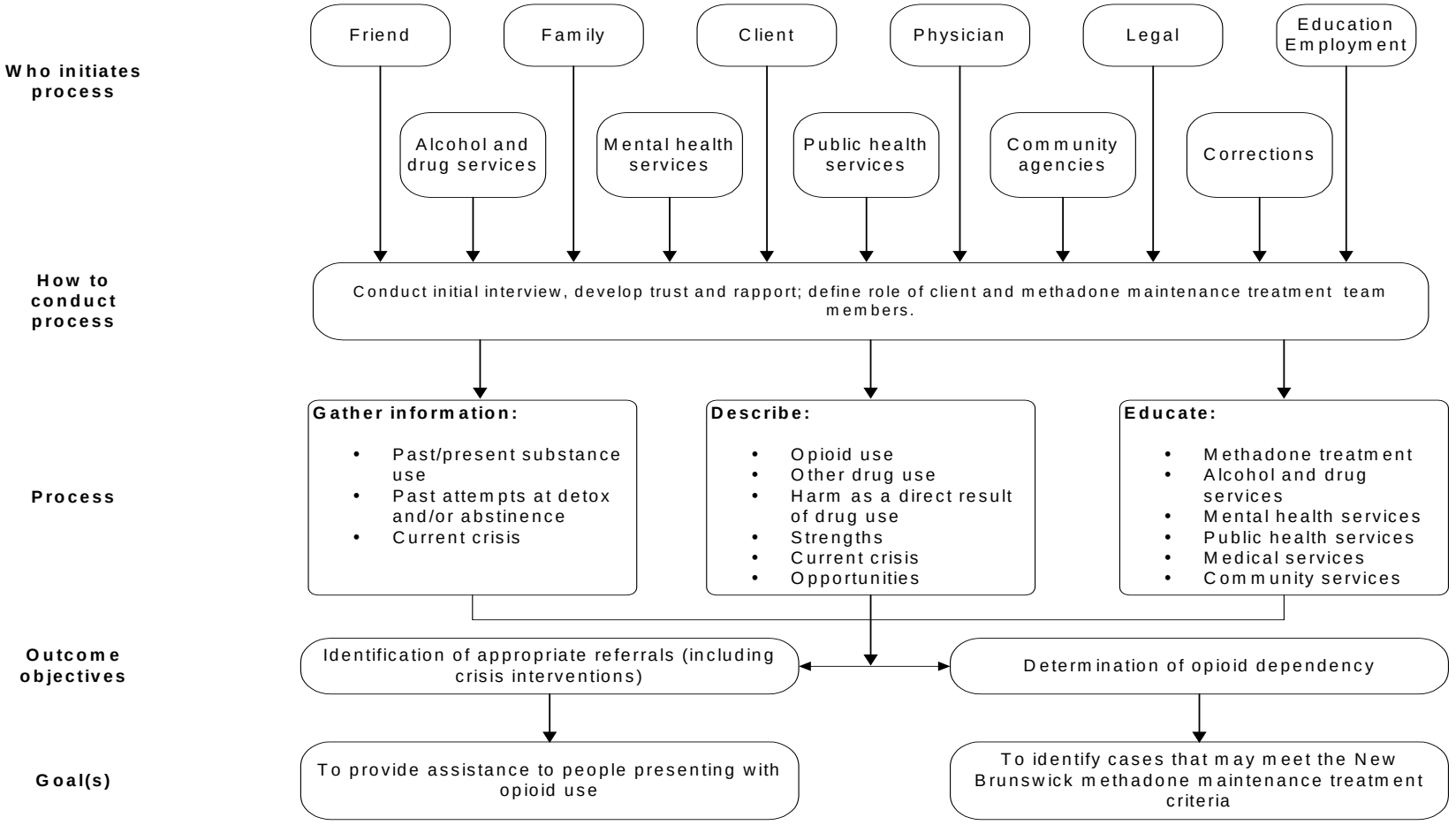
The screening process has four components:

- Gathering information through interviews with the individual, family member(s), and other relevant person(s) individually and/or together after obtaining the appropriate consents from the individual.
- Using screening tools, such as the risk assessment scale, bio-psycho-social assessment.
- Giving feedback to the individual and selecting future actions.
- Briefly intervening to deal with the presenting crisis.

If the screening suggests that the individual is opioid dependent with a high degree of difficulties, the client is referred to the methadone treatment program team and is a priority for service. Individuals may be referred to other options including:

- detoxification
- outpatient
- inpatient

Table 5: Screening Process



Source: Adapted from the Saskatchewan Guidelines for Addictions Counsellors (March 2004)

8 NEW BRUNSWICK MODEL OF MMT SERVICES

Although time frames for the stages of recovery are very individualized, working through the stages of recovery occurs over a period of years. Clinical experience and knowledge suggests that stabilization tasks take around 18 months from the time that the individual actually starts in recovery.

Phase 1: Stabilization

Recovery from dependency is a developmental growth process, with specific stages and tasks, which must be completed before moving onto the next recovery stage. The stages, to the best of our current clinical knowledge and experience are:

- Stabilization
- Transition
- Community

Individuals in this phase of treatment often struggle with the recognition of the need to abstain from all mind-altering chemicals. Providing methadone maintenance treatment services may help an individual in this phase. Individuals prescribed methadone may struggle with continued use of opioids and other drugs. Counseling should address these issues as a normal part of this treatment phase.

MMT team members may provide education on:

- Methadone maintenance treatment – dispel myths and understand the treatment process that includes prescribed methadone (i.e., daily attendance at a pharmacy/clinic)
- Attempts to control use
- Denial/taking ownership of addiction
- Breaking the addiction cycle/lifestyle
- Sleep, exercise, nutrition
- Stress management
- Needle exchange and safe needle use
- Blood born pathogens – especially HIV and hepatitis testing and treatment, as well as hepatitis A & B immunization

Alcohol and drug services during **Stabilization** may include:

- Screening
- Detoxification
- Outpatient counseling
- Referral/advocacy with other community agencies
- Crisis management
- Logistics of accessing methadone treatment (e.g., travel, payment for methadone)

The stabilization phase usually may consist of weekly physician appointments, group and individual counseling, and weekly/random drug screening. This phase consists of a minimum of six (6) weeks in duration.

Phase 2: Transition

Individuals in this stage of recovery need to learn to manage episodes of possible acute withdrawal from non-opioid drugs, post-acute withdrawal symptoms, as well as develop hope and motivation about treatment.

MMT team members may provide education on:

Alcohol and drug services during **Transition** may include:

- Detoxification
- Outpatient and/or inpatient treatment
- Crisis management
- Referral/advocacy with community agencies
- Problem severity assessments
- Assessment of relapse triggers
- Exposure to twelve step programs and/or methadone support groups
- Logistics of accessing community services

- Methadone maintenance treatment regulations
- Dispelling myths
- Community based support programs (e.g. cultural supports, spiritual supports/affiliations)
- Post acute withdrawal, assessing relapse triggers, managing cravings and euphoric recall
- Grief and loss of former friends/networks and development of new social contacts
- Substance affected family/friends/associates and boundary information
- Problem solving (e.g., addictive lifestyle, relationships involving strategies/techniques such as time management, containment and journaling)
- Cognitive skills development (e.g., planning, memory, problem solving)
- Blood-borne pathogens

The transition phase usually consists of:

- Physician appointments every two (2) weeks
- Focus on the Determinants of Health; the social and economic environment, the physical environment and the person' individual characteristics and behaviors (Public Health Agency of Canada)
- Group and individual counseling
- Weekly/random drug screening
- Access to community resources/referrals

During this phase, services are provided for a minimum of six (6) weeks.

Phase 3: Community

MMT services during the **Community** phase may include:

- Outpatient addictions counseling
- Accessing vocational and financial counseling services,
- Accessing school, training, or employment programs
- Accessing mental health services regarding trauma issues
- Accessing family counseling services

Individuals in this phase of treatment develop short-term stability, understand the impact of addiction, learn non-chemical stress management and develop a recovery-centered value system. They also establish lifestyle balance, resolve social damage resulting from substance use, and learn to manage change.

MMT team members may provide education on:

- The development of an individualized treatment value system
- Financial Management
- Boundaries in relationships
- Vocational counseling/school/work/volunteer
- Parenting, self image
- Resolving outstanding legal issues
- Containment/stabilization strategies for people showing signs/symptoms of trauma
- Relapse prevention

MMT team members may provide information on:

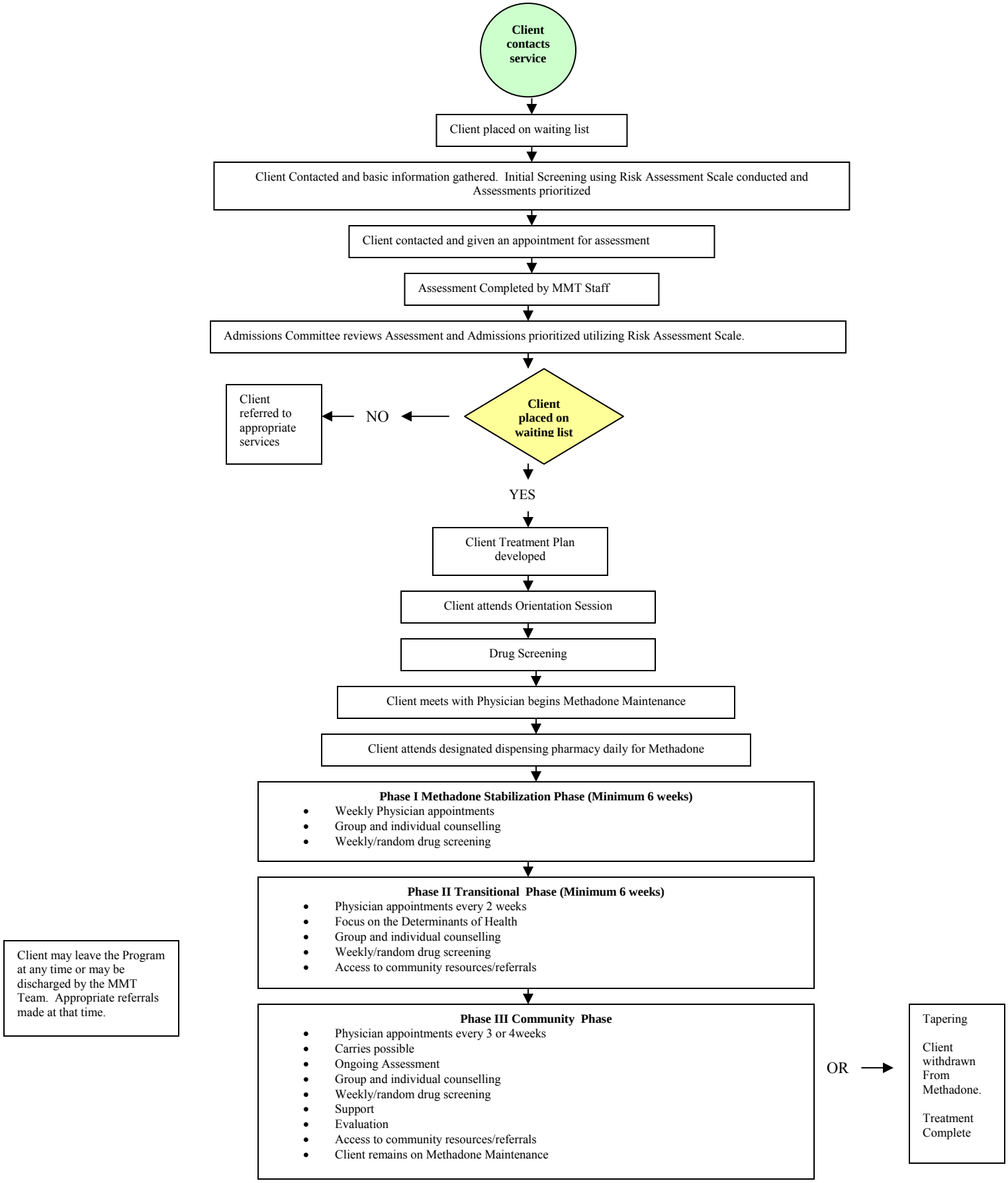
- Renewing or establishing social contacts/outlets
- Family communications, parenting
- Accessing services at other agencies regarding marriage/couple issues, career changes, reaching goals, managing change, recognizing and achieving lifestyle balance

The community phase usually consists of:

- Physician appointments every three (3) to four (4) weeks
- Carries possible
- Ongoing assessment
- Group and individual counseling
- Weekly/random drug screening
- Support
- Evaluation
- Access to community resources/referrals
- Clients remain on Methadone Maintenance

During this phase, services are provided for as long as the client remains in the Methadone Maintenance Treatment Program.

Table 6: Methadone Maintenance Treatment Model



9 FACTORS THAT INFLUENCE THE EFFECTIVENESS OF MMT

MMT can significantly reduce the risk of morbidity and mortality related to injection drug use. Psychiatric distress and drug use may also be also be reduced by participation in treatment. (Caplehorn and Grönbladh et al.,)

The risk of diversion can be addressed by 'cautious clinical judgment' in prescribing take-home doses. (Drake)

There is a significant amount of information about individual and program factors that influence the effectiveness of methadone treatment programs – primarily in terms of client/patient retention in treatment. There are two categories of factors which influence the effectiveness of MMT programs. Individual-related factors and program-related factors are presented in Health Canada, *Literature Review – Methadone Maintenance Treatment* (2002) and associated tables are presented in more detail in **Appendix 6**.

Individual-related factors

Individual circumstance or status may affect treatment outcomes either positively or negatively. 'For the majority of inner-city patients, lack of education and job skills, child care, unemployment, and poverty continue to have an adverse impact on socially productive behavior and treatment response.' (Lowinson et al., 1997).

Based on his review of the evidence, Darke (1998) argues that many of the problem factors that tend to be associated with poorer prognoses can actually be improved by participation in treatment programs, particularly through '**careful clinical management'**.

Patients should not be encouraged to leave methadone maintenance before there are signs of rehabilitation (i.e., employment, stable social adjustment, no illicit drug use, etc.). Individual characteristic/factors are presented in the following table.

Individual Characteristic/factor	• **Age** • **Relationship-related factors** • **Employment** • **Mental health status** • **Criminal history** • **Drug use** • **Behavior** • **Treatment readiness/motivation** • **Therapeutic involvement**

Program-related factors

A number of program characteristics of factors have been associated with improved treatment outcomes – primarily improvements in client/patient retention in treatment. The emphasis on retention in treatment is key. According to Ward et al., 1998, longer lengths of time spent in treatment are related positively to treatment outcomes.

Program-related characteristics are presented in the following table. These program factors also relate to the needs of specific groups.

Program-related factors	• **Emphasis on retention** • **Maintenance orientation** • **Client/patient centered approach** • **Accessibility** • **Integrated, comprehensive services** • **Medical care** • **Other substance use treatment** • **Counseling** • **Mental health services** • **Health promotion, disease prevention and education** • **Ancillary services (in general)** • **Program policies** • **Admission criteria** • **Assessment** • **Dosage** • **Methadone maintenance treatment during pregnancy** • **Duration of treatment** • **Urinalysis and monitoring of drug use during treatment** • **Tapering from methadone** • **Human resources** • **Practitioner attitudes** • **Quality of team-client/patient relationships** • **Training** • **Program environment**

10 OTHER ISSUES RELATED TO METHADONE MAINTENANCE TREATMENT

Transfers to Other Methadone-prescribing Physicians

Transfer arrangements should be set up ahead of time whenever possible to avoid interruption of methadone treatment and to minimize inconvenience to the client, other methadone prescribers, dispensing pharmacies and institutions. MMT team members may be required to co-ordinate the transfer of a client to another methadone-prescribing physician.

The following information should be forwarded to facilitate a transfer:

- MMT screening form
- Copy of most recent methadone prescription with expiry date
- List of any other prescribed medications
- Witnessed drink/carry information
- Physician's treatment plan/evaluation documentation
- Assessment report and other information regarding the individual's treatment and recovery plan

MMT team members may also be involved in arranging for 'courtesy dosing' for clients visiting from or going to locations outside of the community.

Methadone & Pregnancy

The primary intent of methadone maintenance treatment for an opioid dependent pregnant woman is to create a stable environment for the pregnancy and to improve maternal and neonatal outcomes. Methadone does not impair the child's developmental and cognitive functioning and is the recommended course of treatment for most opioid dependent pregnant women. Women who are addicted or abusing opioids do better with methadone than with no treatment (Lindesmith Centre, 1996).

Information is to be provided to women regarding the role of methadone maintenance treatment in pregnancy. Client information can be found in **Appendix 7**.

Concurrent Disorders

Research indicates that mental health issues are to be expected in opioid dependent individuals. Many clients in methadone maintenance treatment may have mental health issues that have been undiagnosed, misdiagnosed, untreated or ineffectively treated due in part to on-going drug use.

During the initial screening interview, it is important to explore and document the individual's mental health/psychiatric history. This may include any past diagnoses, contacts with a psychiatrist or mental health personnel, hospitalizations, medications taken and perceived effect by client, personal struggles with stress, anxiety, depression, childhood trauma, head trauma, suicide attempts and major losses/grief. It is also important to examine present issues, mood states, currently prescribed medications, illicit drug use to manage symptoms, assessing risk to the individual or others, and contact with psychiatry.

Stabilization on prescribed methadone allows for a clearer, more accurate assessment of mental health symptomology. Accurate assessment allows for appropriate diagnosis, treatment and/or referral for treatment.

Research supports providing treatment for addiction and mental health issues simultaneously thus coordination of care is imperative. The goal for individuals is to achieve stability and return of function in both areas.

Adolescents/Youth

Best practice information identifies a need for older youth to have access to a methadone maintenance treatment program. They require safe living environments in order to participate in addiction services and to maintain regular appointments with the services required as part of a treatment plan. As youth may distrust systems, significant effort needs to be made to build trust with youth and engage them in accessing services.

As more knowledge and experience has been gained through methadone maintenance treatment programs, individual circumstances have indicated the need to provide prescribed methadone to younger adolescents.

Detoxification, stabilization, support, and outreach services have been shown to be effective strategies with youth presenting with substance use. These services are particularly important for marginalized youth involved in injection drug use (Currie, 2001).

Offenders in Custody

Correctional Service of Canada has indicated that approximately 80% of federal inmates have some identified level of problem with drugs and/or alcohol. Since the early 1990's, all provinces and territories have had an increase in the rate of drug offences reported by police. New Brunswick has had the largest increase (134%), followed by Saskatchewan (97%), and Quebec (81%). (Juristat Canadian Centre for Justice Statistics – Statistics Canada – Catalogue no. 85-002-XPE, Vol. 24, page 5).

Evidence shows there is a significant reduction of injection drug use in prisons among offenders prescribed methadone for opioid dependency. In a 1998 study, Darke, Kaya

and Finley-Jones show that higher methadone doses in prison were associated with less injection drug use, a fact that is consistent with community studies.

In April 2002, Correctional Service Canada's methadone policy was revised to allow the initiation of methadone treatment while incarcerated. It is important that individuals on prescribed methadone while incarcerated are referred to community based agencies at discharge or on release dates. It is preferable to plan the referral, but at a minimum, to send a notification to the community-based agency when an unplanned release occurs.

For more information on the Correctional Service of Canada: Specific Guidelines for Methadone Maintenance Treatment (2003) please see **Appendix 8**.

In New Brunswick, there is a need for the Community and Correctional Services to develop a standardized methadone policy. In the meantime, the New Brunswick Community and Correctional Services should comply with the CSC National Specific Guidelines for MMT (2003). There is a need for the NB Community and Correctional Services to understand these Methadone Maintenance Treatment Guidelines and adopt a complementary role for clients who are prescribed methadone prior to the arrival to a correctional facility. The NB Community and Correctional Services must commit to the philosophy, goals and objectives of the MMT programs and in so doing, play a vital role in ensuring the continuity of care to existing clients of Addiction Services and MMT programs.

11 MANAGEMENT OF RECORD KEEPING IN METHADONE TREATMENT

Good communication among the MMT team members is essential to protect the privacy and confidentiality of health information in the management of individuals prescribed methadone for opioid dependency. The MMT team members will comply with federal and provincial regulatory requirements.

The sharing of information between team members requires a signed client consent form authorizing communication and release of information. The information that is to be shared shall be on a need to know basis and applicable to the medical management and treatment of the client.

MMT Client Chart

- Demographics
- Track Sheet
- Treatment Plan
- Release of Information/Consent Forms
- On-going progress notes
- Record of medications prescribed
- Signed Treatment Agreement
- Collateral information (from referral source, family doctors, MMT team members, community resources and education (formerly social services), College of Physicians and Surgeons, Justice, jails, hospitals etc.)
- Witness drink/Carry request sheets
- Information/requests from community resources
- Evaluation documentation

The assigned treatment team member is to obtain signed, informed consent from the individual before commencing the screening process of an individual into methadone maintenance treatment process.

A signed treatment agreement between the MMT team members and client details comprehensive care for the opioid dependent individual that includes methadone, medical, addiction, and other health, social and legal services. The treatment agreement directs those involved in the care and treatment of the individual to advise and share healthcare information as required on a need to know basis.

The MMT client chart is to include the following:

- Screening information that may include recommendation and treatment plan
- On-going progress notes
- Release of Information/Consent forms
- Copies of referrals made by the MMT team members
- New Brunswick Health, Alcohol and Drug Admission/Discharge Forms

For more information on recordkeeping please see **Appendix 9**.

12 PROGRAM POLICIES

Program rules should be clearly stated to clients and their families and consistently applied. Clear program policies are associated with longer retention in treatment (Ball and Ross, as cited in Lowinson et al., 1997, 412).

Policies and procedures will be implemented in each region, will be reflective of best practice documents and published research and in keeping with policy review protocols of the Regional Health Authority. These policies and procedures will be subject to an ongoing review process as there is still much research required particularly in the area of outcomes and methadone program assessment.

The methadone program policies and procedures may be grouped under key sections including:

1) Admission criteria
2) Assessment
3) Dosage
4) Duration of Treatment
5) Urinalysis and Monitoring of Drug Use during Treatment
6) Tapering from Methadone

The methadone policies and procedures will address take home medication as a topic of prime importance in the delivery of the methadone maintenance treatment program. The following information is offered as possible components of policies and procedures relative to this subject.

Taking methadone at home is referred to as ***carries*** and is considered a privilege based on the client's functional stability**.** Carries promote the normalization of an individual's lifestyle and behavior. The MMT team members have a significant role in providing information about an individual's functional stability with regard to:

Carry privileges are granted usually as a 'privilege' for compliance with therapy.

Carry privileges must be limited to a maximum period of four days or a maximum total dosage of 400 mg, whichever is less.

- Program participation – client engagement
- Cognitive stability
- Drug free urine screens in the last three months
- Social integration (e.g., employed, active in child care or school)

The treatment team decides when and if carries are to be given to an individual. In doing so, reference must be made to the New Brunswick Pharmaceutical Society – *Methadone Distribution Guidelines* (2004) presented in **Appendix 4**.

As for any other narcotic medication, refills and replacement for lost supplies or stolen medication are not permitted.

Provincial guidelines do not allow carry privileges for the first three months of treatment because of associated risks as depicted in the literature.

In addition, the following is a suggested list of policies and procedures to be considered as part of the addictions services MMT program. These policies should link to existing addiction services policies and in keeping with the continuum approach to addiction service delivery.

- Open admission
- Timely assessment and intake process
- Immediate crisis management and intervention
- Comprehensive assessment components
- Ongoing assessment and assessment tools
- Screening
- Wait list management
- Admission criteria
- Chart documentation (should include the following: completed assessment reports, history of opioid dependence, admission form, consent to treatment, client contractual agreement, methadone dosage and treatment plan, urine testing results, progress notes, evidence of multidisciplinary team involvement and targeted goals and objectives, counseling reports, discharge forms, program compliance record, etc.)
- Adequate, individualized dosage
- Directly observed versus take-home doses (carries)
- Methadone dosage during pregnancy
- Clear criteria for involuntary discharge from treatment
- Urine toxicology screening
- Non-punitive approaches to drug use during treatment
- Client centered management and tapering
- Relapse prevention and management
- Roles and responsibilities of health providers
- Roles and responsibilities of clients, families and significant persons
- Multidisciplinary program team
- Skills building and ongoing training requirements
- Safety issues
- Information collection and sharing
- Definitions of community partners
- Specific client needs
    - ♦ People with multiple substance use behaviors;
    - ♦ People who are dependent on oral opioids;

- Women;
- Pregnant women;
- Youth;
- Homeless persons;
- People living in rural or remote areas;
- First Nations clients;
- People living with HCV;
- People living with HIV/AIDS;
- People living with mental health disorders; and
- Offenders in the correctional system.

13 RESEARCH AND EVALUATION

More research and evaluation of methadone maintenance treatment is needed in many different areas, particularly in the Canadian context. There have not been sufficient research measuring goals and outcomes of established programs in Canada which is essential to refine program delivery on an ongoing basis, to identify ways and means to better address the needs of diverse clienteles, to improve treatment outcomes and to reduce harms associated with opioid-dependence.

Some treatment goals have not been adequately measured to ascertain whether MMT programs have successfully

- Reduced the transmission of HIV, HCV and other blood-borne pathogens;
- Achieved improvement in quality of life and social productivity;
- Improved community public health and safety;
- Improved health outcomes for special client groups;
- Treated adolescents/youth;
- Measured program acceptability by clients and society;
- Investigated medication/treatment alternatives in other countries;
- Managed pain;
- Provided adequate training and skills building to achieve desired goals;
- Implemented appropriate screening/assessment and outcome measurement tools for both centralized and outreach services;
- Achieved cost-effectiveness of methadone maintenance treatment and assistive recovery programs.

At best, there needs to be concerted efforts to evaluate ongoing practices and programs in New Brunswick. Evaluation is an essential tool for determining the extent to which programs meet their objectives and the needs of clients and their families. Evaluation offers an opportunity to improve program delivery and compare the effectiveness of different treatment delivery models. Evaluation also provides the opportunity to explore best practices and the context of their achieved successes.

There should be clarification on what information needs to be collected, what purpose it will serve and how it should be collected to achieve comparable, quality and measurable data elements essential for effective decision making.

A systemic approach to evaluation requires the commitment of providers who deliver treatment and rehabilitation, the involvement of clients and their families, and the support of policy makers. Evaluation results should be published and disseminated to achieve desired goals. A selected bibliography is offered in **Appendix 10** for more information relative to MMT.

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APPENDIX 1 – METHADONE MAINTENANCE TREATMENT SERVICES CONTACT INFORMATION

If you need help and want the opportunity to make changes that others have made through methadone maintenance treatment call the Addiction Services office in your area for information about services in your health region or call 1-800-461-1234.

Bathurst	547-2086
Campbellton	789-7055
Edmundston	735-2092
Fredericton *	452-5558
Miramichi *	623-3375
Moncton *	856-2333
Saint John *	674-4300
Tracadie-Sheila	394-3615

* Regions offering Methadone Maintenance Treatment Programs

Directory Of Methadone Prescribing Physicians
Please call the College of Physicians and Surgeons of New Brunswick
One Hampton Road, Suite 300
Rothesay, NB E2E 5K8
Telephone: (506) 849-5050
1-800-667-4641
Fax: (506) 849-5069
e-mail: info@cpsnb.org
http://www.cpsnb.org/english/who.html

Directory Of Methadone Dispensing Pharmacies
Please call the New Brunswick Pharmaceutical Society
373-B Urquhart Avenue Moncton, NB E1H 2R4
tel: (506) 857-8957 fax: (506) 857-8838
e-mail: info@nbpharmacists.ca
http://www.napra.org/docs/0/203/227.asp

APPENDIX 2 – TERMINOLOGY

ADDICTION: Addiction is a primary, chronic, neurobiological disease, with genetic, psychosocial, and environmental factors influencing its development and manifestations. It is characterized by behaviors that include one or more of the following (3 C's):
Impaired **C**ontrol over drug use
Compulsive use
Continued use despite harms (**C**onsequences)

CARRIES: Taking methadone at home is called carry privilege or 'carries'. Provincial guidelines do not allow carry privileges for the first three months of treatment. After that, carry privileges can be discussed with your doctor. In many cases, when people are stabilized on methadone they become employed, active in childcare or enroll in school. These may be reasons to ask for take-home medication.

COURTESY DOSING: A request made by the primary methadone prescriber for interim dosing for individuals on prescribed methadone who may be residing temporarily in another location (e.g. while they are away from home).

CRAVING: A bio-psychological arousal and urge to return to addictive behavior, characterized by a strong desire, pre-occupation and possible impulsivity.

DIVERSION: Prescribed medication, including methadone, being used illegally by persons who receive it from an individual for whom it is prescribed.

OPIATE: A substance derived from or containing opium. Thus all opiates are opioids. Opiates include morphine and codeine.

OPIOID: An all-inclusive term, which describes drugs with morphine-like activity, whether natural products of opium, semi-synthetic like heroin, or hydromorphone (Dilaudid) or entirely synthetic like meperidine (Demerol) or methadone.

PHYSICAL DEPENDENCY: Physiological state of adaptation to a specific psychoactive substance characterized by the emergence of a withdrawal syndrome during abstinence which may be relieved in total or in part by re-administration of the substance.

PSYCHOLOGICAL DEPENDENCY: A subjective sense of need for a specific psychoactive substance, either for its positive effects or to avoid negative effects associated with its abstinence.

RECOVERY: Recovery is defined as the BEST RETURN OF FUNCTION, which may or may not include abstinence from drugs.

THERAPY: For the purposes of this document, therapy is a combination of prescribed methadone and counseling services.

TOLERANCE: State in which an increased dosage of a substance is needed to produce a desired effect.

APPENDIX 3 – TREATING OPIOID DEPENDENCY THROUGH METHADONE

What is Methadone? Methadone is a painkilling medication discovered in the 1940s by German scientists as a substitute for morphine. Later, researchers found that methadone could be used to treat opioid withdrawal. It was not until the 1960's in Vancouver BC that methadone was first used to treat opioid addiction.

What is it used for? Methadone is used to treat opioid dependency. Examples of opioids include heroin, codeine, morphine, hydromorphone (Dilaudid) and meperidine (Demerol).

How does it work? Methadone has unique actions other than pain relief. When taken daily at the proper dose, methadone prevents physical withdrawal (dope sickness) and physical cravings for opioids for about 24 hours. The right dose of methadone does not make a person feel 'high' or 'drugged' like other opioids do, allowing a person to live a normal life. Methadone is taken daily as a 'drink' mixed with flavored fruit juice, allowing the opioid dependent/addicted individual to stop injecting drugs. This decreases their risk of contracting blood-borne diseases like HIV/AIDS and Hepatitis.

The long-term goal of methadone maintenance treatment is to aid people in 'return of function'. Success is measured by an individual's level of functioning in various areas of life – not by the amount of methadone they are taking. Methadone can help the opioid dependent/addicted individual live a healthier, more productive life, free of illegal drugs.

Is methadone safe? Research has shown that methadone is as safe as other medications when it is taken as prescribed by a doctor. Methadone does not damage any of the body's organs. It allows individuals to think more clearly so that they can learn new skills. When people are taking a stable dose, methadone does not interfere with their ability to go to school, work, drive or parent. Methadone is not safe for people it was not prescribed for. In fact, it could cause their death.

How much methadone does a person need? The right dose of methadone varies for each person. The proper dose keeps a person from having withdrawal symptoms between doses. It will also stop physical cravings for opioids and prevent individuals from getting high if they do take opioids.

Are there adverse effects? As with any medication, some people may experience adverse effects. When starting methadone treatment adverse effects may include nausea, sleepiness, sweating and constipation. As a person becomes stable on the medication these adverse effects usually disappear, become less intense, or might be eliminated with a dose change.

What can a person expect? Taking a prescribed medication, methadone, is one of the first steps in methadone maintenance treatment. Individuals in methadone treatment are expected to make daily trips to a pharmacy for a witnessed drink. Once stable on methadone, a person can "do the work" in the other areas of their life. The areas to be repaired and to learn new skills in include drug use, physical health, mental health, social health and legal health. Methadone alone does not cure opioid dependency. It is used as part of a holistic treatment program, which includes support, education, and skill development. Talk to your doctor, addiction counselor, pharmacist, family, friends and successful methadone clients for education and support.

How long will treatment take? There is no set time for methadone maintenance treatment. In general, the longer a person stays in treatment, the greater their chance of success. Some people take methadone their entire life because it keeps them stable and functioning well. Others choose to "wean off" methadone once they have returned to full function. Individuals are encouraged to make realistic plans with their treatment team and to discuss their progress. They should never reduce their dose or stop taking their methadone on their own as they may experience withdrawal symptoms and drug cravings that set them up to relapse.

Benefits of methadone treatment

- Better general health
- Better access to health care
- Greater psychological well-being
- Better home and work life
- Less spread of infectious diseases like HIV/AIDS and Hepatitis
- Improved ability to seek employment and education
- Improved memory and thinking
- Less drug-related theft and property crime
- Less reliance on welfare
- Less illicit drug use, fewer deaths
- Less violence
- Improved ability to parent and care for children
- Improved self-esteem and social functioning
- Safer communities

Overall, research indicates that people receiving MMT will:

- Spend less time using narcotics daily (McGlothlin and Anglin, as cited in NIDA, 1995, 4-8);
- Reduce their use of illicitly obtained opioids (and continue this pattern as long as they stay in treatment) (Simpson and Sells; Hubbard et al.; Simpson and Sells; Ball and Ross, as cited in NIDA, 1995, 4-10, 4-12, 4-14);
- Reduce their use of other substances including cocaine, marijuana and alcohol (Hubbard et al., as cited in NIDA, 1995, 4-15);
- Spend less time dealing drugs (McGlothlin and Anglin, as cited in NIDA, 1995, 4-8);
- Spend less time involved in criminal activities (McGlothlin and Anglin; Ball and Ross, as cited in NIDA, 1995, 4-8,4-16,4-17);
- Spend less time incarcerated (McGlothlin and Anglin, as cited in NIDA, 1995, 4-8);
- Have much lower death rates than individuals who are dependent on opioids and not receiving treatment (the death rate for those not receiving treatment is more than three times higher than for those engaged in treatment (National Consensus Development Panel on Effective Medical Treatment of Opiates, 1998, 1938);
- Reduce injecting (Ball and Ross, as cited in NIDA, 1995, 4-22), and injection related risk behaviors (studies reviewed by Ward et al., 1998g, 67-68);
- Reduce other risk behaviors for transmission of HIV and STDs (Wells, Calsyn and Clark, 1996, 519; Longshore et al., 1994, 754);
- Reduce their risk of acquiring HIV infection (Metzger et al., as cited in NIDA, 1995, 19, 4-20);
- Potentially reduce their risk of acquiring HCV (Novick, 2000, 440) or other blood-borne pathogens;
- Improve their physical and mental health (Lowinson et al., 1997, 409; Doles Nyswander and Kreek, as cited in NIDA, 1995, 4-9);
- Improve their social functioning (Gearing and Schweitzer, as cited in Brands and Brands, 1998,2) and
- Increase their likelihood of being employed full-time (Simpson and Sells, as cited in NIDA, 1995, 4-18); and
- Improve their quality of life (Dazord, Mino, Page and Broers, 1998, 235).

For pregnant women who are dependent on opioids, receiving methadone maintenance treatment, combined with adequate prenatal care:

- Decreases obstetrical and fetal complications (National Consensus Development Panel on Effective Medical Treatment of Opiate Addiction, 1998, 1939).
- Methadone protects the fetus from erratic opioid levels and frequent opioid withdrawal symptoms, which are common among pregnant women who do not receive treatment for their opioid dependence (Finnegan; Kaltenbach et al., as cited in NIDA, 1995, 1-32, 1-33).

Challenges of methadone treatment

- Highly regulated, long-term form of treatment.
- Methadone is dangerous, potentially fatal to non-opiate dependent people
- Risk of diversion is real and serious
- Side effects trouble some people.
- Participation in methadone treatment may be stigmatizing for clients.

APPENDIX 4 – METHADONE DISTRIBUTION GUIDELINES FOR A METHADONE MAINTENANCE PROGRAM Approved by Council of New Brunswick Pharmaceutical Society (2004)

Please note, the New Brunswick Pharmaceutical Society's web site is currently under construction. For further information, please contact them at info@nbpharmacists.ca for information regarding this document.

APPENDIX 5 – METHADONE MAINTENANCE GUIDELINES

Approved by the College of Physicians and Surgeons of Ontario, the Centre for Addiction and Mental Health and the Ontario College of Pharmacists (2001)

http://www.cpso.on.ca/Publications/methguide.htm

APPENDIX 6 – CLIENT-RELATED AND PROGRAM-RELATED FACTORS WITH ASSOCIATED OUTCOMES

(Source: Health Canada Literature Review – Methadone Maintenance Treatment 2002)

Individual-related factors

Individual Characteristic/Factor	Associated Outcomes
	▪ Evidence reviewed by Darke (as cited by Ward, Mattick and Hall, 1998f, 434) suggests that it is the "overall severity" of clients'/patients' psychiatric problems that is related to poorer treatment outcomes, rather than specific diagnoses.
Criminal history	▪ Those with minimal criminal involvement are likely to have better treatment outcomes (McLellan; Simpson & Seils; Ball & Ross; Anglin & Hser, as cited in National Institute on Drug Abuse, 1995, 1-45). ▪ Evidence reviewed by Ward et al. (1998b, 331) indicates that one of the success factors for clients/patients who complete MMT is having "little history of criminal activity". Those clients/patients with a "longer and more extensive criminal history" are most likely to return to using drugs and/or criminal activity if they leave treatment. ▪ A history of criminal activity is associated with poor treatment retention (McLellan and Farley et al., as cited in Strain, 1999b, 76).
Drug Use	▪ Evidence reviewed by Ward et al. (1998b, 331) indicates that clients/patients with a "longer and heavier history of opioid use" are most likely to return to using drugs and/or engaging in criminal activity if they leave treatment. ▪ According to evidence reviewed by Darke (1998b, 76) drug use other than heroin (e.g., benzodia zepine, cocaine) is associated with riskier behaviours and poorer psychological functioning and many indicate a poorer prognosis. ▪ Amount of illicit opioid use during first two weeks of treatment is predictive of subsequent rates of opioid use (as measured by urine samples) (Strain et al., in Strain, 1999b, 76). ▪ Amount of cocaine use during first two weeks of treatment is predictive of subsequent rate of cocaine use (as measured by urine samples) (Strain et al., in Strain, 1999b, 76).
Behaviour	▪ According to evidence reviewed by Ward et al. (1998b, 331) clients/patients who leave treatment "against staff advice" or who exhibit "little behaviour change during treatment" are most likely to return to using drugs and/or engaging in criminal activity if they leave treatment.
Treatment Readiness/ Motivation	▪ Treatment readiness, "measured with items from the CMRS [circumstance, motivation, readiness and suitability] (DeLeon & Jainchill, 1986; Joe, Simpson and Broome, 1998) was found to be significantly related to therapeutic involvement" (Fletcher & Battjes, 1999, 83). ▪ Motivation at intake is a strong determinant of therapeutic involvement (Joe, Simpson and Broome, 1999, Abstract). ▪ Patients expressing greater confidence and commitment after three months of treatment generally began with higher motivation at intake (Broome et al., 1999, Abstract).

Individual Characteristic/Factor	Associated Outcomes
Therapeutic Involvement	▪ Therapeutic involvement – when "measured in terms of rapport with counselor, confidence in treatment, and commitment to treatment" – was a significant predictor of retention (Fletcher & Battjes, 1999, 83). ▪ Therapeutic involvement is strongly determined by motivation at intake (Joe et al., 1999, Abstract).

Program-related factors

Program-related Factors	Associated Treatment Outcomes
Accessibility	▪ Recent research reviewed by Ward et al. (1998b, 331) indicates that some of the program factors that are most likely to improve retention include accessibility, affordability and conventional hours of operation. ▪ According to the TOPS study, clinic accessibility is related to retention (Condelli & Joe et al., as cited in Ward et al., 1998b, 3325). ▪ According to Maddux and colleagues (as cited in Ward et al., 1998b, 325), fee-for-service methadone has poorer retention rates than free treatment. ▪ Factors that impede accessibility, such as treatment fees, have been found to have an adverse effect on retention (Maddux, as cited in National Institute on Drug Abuse, 1995, 1-50).
Integrated, Comprehensive Services	▪ Comprehensive services and the integration of medical, counseling and administrative services are associated with better treatment outcomes (Ball & Ross, as cited in National Institute on Drug Abuse, 1995, 1-38). ▪ The most effective opiate agonist maintenance programs provide methadone as well as other medical, behavioral, and social services (Leshner, 1999).
Medical Care	▪ Given the prevalence of (often neglected) medical conditions among people who are dependent on opioids, the provision of primary and specialist medical treatment is a key aspect of MMT. ▪ Lowinson et al. (1997, 410) notes that "providing primary care to substance abusers in methadone maintenance clinics could reduce the demand place on emergency rooms and the need for hospitalization and thereby drastically cut the overall cost of their care."
Other Substance Use Treatment	▪ Given the prevalence of multiple substance use behaviors among people who are dependent on opioids, the provision of other substance use treatment is a key aspect of MMT.
Counselling	▪ Based on their review of the evidence, Mattick, Ward and Hall (1998, 296) conclude that "there is reasonable evidence to suggest that counseling does add to the effectiveness of methadone maintenance treatment for some patients." ▪ Greater amounts of counselling services are associated with better outcomes (McLellan; Strain et al., as cited in Strain, 1999b, 76). ▪ There is evidence that comprehensive counselling services provided by experienced counsellors is a factor in treatment success (Ball & Ross, as cited in National Institute on Drug Abuse, 1995, 1-38). ▪ There is a strong relationship between session attributes and therapeutic involvement. Session attributes were the number of individual counselling sessions, the number of times drugs/addiction or related health topics were discussed, and the number of times other topics were discussed in the first month of treatment (Joe et al., 1999, 117, 122). ▪ "..patients expressing greater confidence and commitment after [three] months of treatment generally began with higher motivation at intake, had formed better rapport with counselors, and attended counseling sessions more frequently" (Broome et al., 1999, Abstract).
Mental Health Services	▪ Given the prevalence of mental health problems among people who are dependent on opioids, the provision of mental health services is a key aspect of MMT.

Program-related Factors	Associated Treatment Outcomes
Health Promotion, Disease Prevention and Education	▪ Given the prevalence of risk behaviors for HIV, HCV and other blood-borne pathogens among people who are dependent on opioids, the inclusion of health promotion and disease prevention and education strategies is a key aspect of MMT.
Ancillary Services (in general)	▪ Newman and Peyser (as cited in Mattick, 1998, 269) have suggested that there is a widespread belief that ancillary services are the most important components of effective methadone maintenance treatment programs, despite the fact that there is relatively little research evidence to support this idea. ▪ Joe et al. (as cited in Ward et al., 1998b, 324) analyzed data from the TOPS study and found that increased retention was associated with providing clients/patients with access to medical, psychological and financial services during treatment. ▪ Condelli (as cited in Ward et al, 1998b, 324) also analyzed TOPS data and found that increases in retention were associated with higher ratings of the quality of services by clients/patients. ▪ Research by Maddux et al., (as cited in Ward et al., 1998b, 325) indicates that services need to be tailored to the clients'/patients' needs, and programs should take into account the extent to which clients'/patients' are interested in using such services. ▪ A study by McLellan et al., (as cited in Bell, 1998a, 169) found that the greater the level of services provided, the better the treatment outcomes. ▪ "..those programs with higher average involvement by patients used more social and public health services, maintained more consistent attendance at counselling sessions, and served patients who collectively has more similar kinds of needs (Broome et al., 1999, Abstract). ▪ "..patient confidence was higher when referred services were more readily accessible… even patients without unmet needs have higher confidence in program that maintain higher levels of service utilization. Thus, the therapeutic environment appears to be more positive when a broad array of paitent needs are being address" (Broome et al., 1999, 133). ▪ Based on their review of evidence, Hall et al. (1998b, 51) conclude that intensity of ancillary services is a probable factor in treatment outcomes.
Program Policies	▪ Clear policies and procedures are linked to longer retention (Ball & Ross, as cited in Lowinson et al., 1997, 412). ▪ Clinic policies are one of the most important factors for retention (D'Ippoliti et al., 1998, 171).
Admission Criteria	▪ In a study by Bell et al. (as cited in Ward et al., 1998a, 193) the consequences for individuals not admitted to treatment were a 16-month delay in their entry into treatment, and their exposure in the interim to the risks of incarceration and death. ▪ Given the potential for methadone maintenance treatment to reduce the harms associated with opioid dependence – and the consequences of not providing treatment, restrictive admission criteria should be avoided.
Assessment	▪ According to studies by Bell et al. and Woody et al. (as cited in Ward et al., 1998b, 326) programs that provide rapid vs. slow assessment have better retention. A study by Maddux et al. (as cited in Ward et al., 1998b, 326) did not find a statistically significant difference, but did find that more of the clients/patients in a rapid assessment group

Program-related Factors	Associated Treatment Outcomes
	initiated treatment, and there was a trend to increased retention among the group. ▪ "..even very early events in treatment [i.e., during first month] can have effects on patient decision to remain [one] year later" (Joe et al., 1999, 122).
Dosage	▪ Based on the evidence reviewed, the National Institute on Drug Abuse (1995, 1-38 to 1-40) concludes that the "establishment of adequate dosing policies" is associated with treatment success and "…methadone dosage should be based on the patient's individual needs, the goal of treatment, and progress in treatment." ▪ The evidence reviewed by Strain (1999b, 76) indicates that higher dose is associated with better treatment outcomes. ▪ Dose is one of the important factors for improved retention (D'Ippiliti et al., 1998, 171). ▪ Recent research reviewed by Ward et al. (1998b, 331) found that programs with a flexible dosage policy are more likely to meet clients'/patients' needs. ▪ Studies by Grabowski et al. and Pani et al. (as cited in Ward et al., 1998b, 325-326) indicate that providing take-home doses is related to retention. ▪ Flexible take home doses are an influential factor in retention (Lowinson et al., 1997, 412).
Methadone Maintenance Treatment During Pregnancy	▪ Providing methadone maintenance treatment for pregnant women who are dependent on opioids has been shown to be effective in improving maternal and infant outcomes.
Duration of Treatment	▪ Length of time in treatment is the major factor in successful outcomes (Ball & Ross, as cited in Lowinson, et al., 1997, 412). ▪ Studies reviewed by Ward et al. (1998b, 312) indicate that longer length of time in treatment is associated with improved treatment outcomes after leaving treatment.
Urinalysis and Monitoring of Drug Use During Treatment	▪ Recent research reviewed by Ward et al. (1998b, 331) suggests that programs with a "non-punitive approach to illicit drug use" are more likely to meet the needs of clients/patients. ▪ According to Stitzer et al. (as cited by Ward et al., 1998b, 326), using negative consequences, e.g., reduced doses of methadone, to respond to illicit drug use during treatment has been co-related, in a number of studies, with clients/patients leaving treatment.
Tapering from Methadone	▪ Given the difficulties associated with tapering from methadone, a client/patient-centred approach to making this decision and engaging in this process is a key aspect of MMT.
Human Resources	▪ "According to Kreek (1991), adequate staff members, training, and concern for patient needs and high staff stability (low staff turnover) are associated with improved patient outcomes." (Centre for Substance Abuse Treatment, as cited in National Institute on Drug Abuse, 1995, 1-39). ▪ High staff morale is associated with better treatment outcomes (Lowinson et al., 1997, 412.)

Program-related Factors	Associated Treatment Outcomes
Practitioner Attitudes	▪ According to recent research reviewed by Ward et al. (1998b, 331), program staff with positive attitudes to methadone treatment and to clients/patients is a factor that makes retention more likely. ▪ "..there are positive consequences of a supportive and committed recovery environment for patient engagement and eventual success" (Broome et al., 1999, 134)
Quality of Team-Client/Patient Relationships	▪ "..patients expressing greater confidence and commitment after [three] months of treatment generally began with higher motivation at intake, had formed better rapport with counselors, and attended counseling sessions more frequently." (Broome et al., 1999, Abstract). ▪ "Factors that influence longer retention are…trusting and confidential relationships between the patients and the program staff" (Lowinson et al., 1997, 412). ▪ Based on their review of the evidence, Hall et al. (1998b, 51) conclude that "other relevant factors [in programs' effectiveness in reducing drug use and criminal activity] probably include the quality of the therapeutic relationships between patients and staff."
Training	▪ Staff training is associated with better treatment outcomes (Kreek; Centre for Substance Abuse Treatment, as cited in National Institute on Drug Abuse, 1995, 1-39).
Program Environment	▪ Although relatively little research has been done in this area, "the organization of treatment is almost certainly an important component of effectiveness" (Bell, 1998a, 166).

APPENDIX 7 – METHADONE AND PREGNANCY

If you are abusing opioid drugs and pregnant, or thinking about becoming pregnant, this section may answer some important questions you have about the effects of opioid use on your unborn child. This section will also provide information about methadone treatment and pregnancy that may help you and your baby.

What are the benefits of methadone maintenance treatment during pregnancy?
Methadone has been used for many years as a safe and effective treatment for opioid dependency. Methadone will not harm you or your baby when it is taken as prescribed by your doctor.

There are a lot of good reasons to consider methadone maintenance treatment if you are pregnant.

- Decreased exposure to blood-borne diseases such as HIV/AIDS and Hepatitis
- Decreased risk of premature labor, low birth weight, miscarriage and stillbirths
- Improved nutrition during pregnancy
- Allows you to make healthy life style changes

What are the risks of continued opioid use when pregnant?
Continued street use of opioids (like morphine, heroin, and hydromorphone [Dilaudid]) while pregnant can cause complications for you and your baby. Continued street use increases the risk of premature labor, miscarriage, stillbirths and sudden infant death syndrome (SIDS). There is always a risk of exposure to a blood-borne disease for you and your baby through injection drug use.

How does methadone affect my baby?
Because methadone crosses from mom to baby while in the womb, your baby may experience some withdrawal symptoms following birth. This is called neonatal abstinence syndrome. The doctor will determine if your baby is in withdrawal and can easily treat these symptoms. Moms taking methadone are encouraged to breast-feed their babies like any new mother. You are encouraged to discuss any concerns that you may have with your doctor. There are no long-term effects to a baby from methadone. Methadone treatment is always the better choice if you are addicted or abusing opioids.

What dose should I be taking during my pregnancy?
The right dose of methadone during pregnancy is individual and best determined by you and your doctor. Certain changes occur during pregnancy that may affect the level of your methadone dose. It is important to discuss any symptoms of withdrawal or craving with your doctor. Stopping or decreasing your methadone dose during pregnancy is not recommended. It could put you and your baby at risk.

Will I still get methadone in the hospital?
Be sure to tell the hospital staff that you are receiving methadone to ensure the continuation of your methadone while in hospital. You can be treated for pain during labor and delivery like any other patient.

APPENDIX 8 – CORRECTIONS & PUBLIC SAFETY METHADONE TREATMENT POLICY

(NOT FOR TRANSLATION)

http://www.csc-scc.gc.ca/text/pblct/methadone/a_e.shtml

APPENDIX 9 – RECORDKEEPING METHADONE MAINTENANCE TREATMENT SERVICES

(Source: Methadone Assisted Recovery Guidelines for Saskatchewan Addiction Counsellors – 2004)

Methadone treatment team	**Examples of information usually shared between team members**	**Rationale for sharing information**
Methadone-prescribing physician	▪ Clinical notes ▪ Medical assessments ▪ Prescriptions ▪ Carry forms ▪ Drugs of abuse testing results ▪ Psychosocial assessments ▪ Treatment agreement and plan	▪ Safety ▪ Intake/discharge ▪ Diagnosis ▪ Monitor treatment progress ▪ Case conference ▪ Referrals
Methadone-prescribing pharmacists	▪ Dispensing history/dose ▪ Changes in patient/client behaviours and/or attitudes from directly observed therapy ▪ Prescription drug coverage	▪ Safety ▪ Monitor treatment progress ▪ Case conference ▪ Referrals
Alcohol and Drug Counsellors	▪ Intake screening/recommendations ▪ Problem severity assessments ▪ Treatment/recovery plans ▪ Clinical notes ▪ Alcohol and Drug Services Client Intake/ Discharge forms	▪ Safety ▪ Crisis intervention ▪ Monitor treatment progress ▪ Case conference ▪ Referrals
Other resources	**Examples of information that may be shared with team members**	**Rationale for sharing information**
Family physician	▪ Past medical record ▪ Past treatment for dependence/addiction	▪ Intake ▪ Discharge ▪ Medical referrals
College of Physicians and Surgeons of Saskatchewan	▪ Narcotic/Methadone history from the Triplicate Prescription Program (shared with treating physician only)	▪ Safety ▪ Physician educational audits
Mental Health Counsellors	▪ Mental health history ▪ Clinical notes ▪ Mental Health Services (MHS) Client Intake/ Discharge forms ▪ Medication/dosage	▪ Safety ▪ Crisis intervention ▪ Monitor treatment progress ▪ Case conference ▪ Referrals
Public Health Nurses	▪ Client/patient information: ▪ Immunization ▪ Needle exchange information	▪ Surveillance ▪ Testing ▪ Partner notification under Public Health Regulations
Community Services Personnel	▪ Case assessments ▪ Family legal issues ▪ Custody of children	▪ Child protection ▪ Family support ▪ Income support
Police Officers	▪ Contact with police regarding illegal activities ▪ Convictions/arrest warrants ▪ Probation/parole conditions	▪ Safety ▪ Monitor progress ▪ Clients/patients in custody ▪ Referrals
Correction Workers	▪ Correctional Release Plans, including release conditions ▪ Risk assessments ▪ Probation/parole conditions	▪ Same as police ▪ Release planning
Hospital Personnel	▪ Continuity of care ▪ Referrals	

APPENDIX 10 – METHADONE MAINTENANCE THERAPY – SELECTED BIBLIOGRAPHY

http://www.camh.net/About_Addiction_Mental_Health/CAMH_Library/MethadoneBib2004.pdf