

1. Overview of the MST Study

This chapter is an overview of the Ontario study including a brief description of multisystemic therapy, highlights of the research design, and a summary of major findings. The framework for the report is an ecological model placing the findings and recommendations in the context of the implementation environment.

These topics are reviewed...

What we Know so Far

Multisystemic Therapy

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- Treatment Modality
- Training and Supervision

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- Applicability of American Findings to Canada
- Experimental Design
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- The Canadian Context
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Overview

The goal of the scores of people involved with this project was to cull the best information available about improving community safety and to actualize this knowledge in Canada. The research literature pointed to multisystemic therapy (MST) as an effective and efficient method to reduce recidivism in a group of youth that, because of chronic criminal behaviour, poses a challenge to existing services and concerns the general public greatly. The aim was to select chronic young offenders, work with them in the environment where they make decisions about criminal behaviour, amplify their strengths in equal measure with attention to their problems, empower the parents to make and sustain gains, and take a stake in doing whatever it takes to change the trajectory toward incarceration. This was done by implementing MST with the cooperation of 409 families in four parts of Ontario, Canada. Half of them received MST and half continued with the usual services available in their areas.

This study used an experimental design, the definitive methodology to test an intervention. Also important were intake screening, a large sample, a valid measure of outcome, and long-term follow-up. The data collection strategy was specifically designed to answer research questions posed by stakeholder groups. Considerable care and expense were expended to ensure fidelity to the treatment model. The outcome measure involved real behaviour in the community, not in-program changes in attitudes or clinical symptoms. The research was designed and conducted by investigators independent of the method's developer, the funder, and the agencies delivering the program. The multi-site nature of the project permitted comparisons of effectiveness in different types of communities under variable conditions of implementation.

This study used an experimental design, clear selection criteria, large samples in multiple sites, long-term follow-up, and unambiguous outcome measures.

Without such rigour in the study design, a very different conclusion would probably have been reached about the effectiveness of MST.¹ At this point, four conclusions are possible:

1. the treatment effect of MST in Ontario is too small to be detected statistically with a sample of 409 (raising doubts about its practicality as an intervention), or
2. there is no treatment effect of MST that exceeds that of usual services of Ontario, or
3. neither MST nor the usual services was effective, or
4. MST might be effective in Canada under different conditions of implementation, with different clients, different outcome measures, and/or compared with different services.

The fourth point cannot be completely dismissed unless this study is replicated elsewhere in Canada with a sample of at least 600 and ideally 800. Also, it is possible that MST has benefited families in ways not captured when outcomes are related to criminal convictions. Whichever conclusion one makes, interim results plainly indicate that MST is not the panacea for Canada the American data suggested it might be, if the goal is the reduce crime.

Nevertheless, this is a landmark study in Canadian youth justice. It has demonstrated the utility of sound research design and we have learned a great deal about the effort needed to seek and maintain treatment integrity. The data collected here inform us about the characteristics of this client group. Suggestions for the next steps are offered: using experimental field studies to increase our knowledge base, encouraging programs with high degrees of integrity, and learning more about the chronic young offenders in our communities.

This small group of young people costs society a great deal. Considering only the offences for which they have been convicted so far, it is conservatively estimated that these 409 youth have already cost over \$43 million in direct justice-system expenditures – police investigation and processing, pre-trial detention, prosecution and courts, legal aid, probation, and other correctional costs -- excluding the costs of processing offences for which there was no conviction and excluding costs to victims (both for offences that did and did not result in official processing). Taking the time and money to learn more about this group will pay off in the long run. MST was not the answer for Canada, so the journey continues. It is worth the trip because the goal is community safety.

Clearly, these interim results suggest MST is not the panacea for Canada that American data suggested it might be. But the completion of this project shows the feasibility – and utility – of randomized field studies.

What we Know so Far

Many organizations have limited resources and may be tempted to skip evaluation, instead dedicating that money to intervention activities. However, evaluation is a critical step. It will enable you to demonstrate to funders, community leaders, and intervention staff that your efforts were a success. And if your intervention fell short of expectations, evaluation will help you identify what went wrong so you can make necessary changes to the intervention.²

The ultimate research question was this: “Will the MST intervention be followed by lower levels of criminal recidivism than the services already available to young offenders in Ontario?” At this point, the data suggest that the answer is “no.” The two groups are not distinguishable statistically (see Figure 1.1). Through random assignment, this sample was divided into two groups that started out exactly the same. They ended the study as remarkably the same. Looked at another way, neither the MST nor the usual services did well. After two years, two thirds had been convicted of an offence. About 80% of the sample were convicted at least once within three years after discharge. This suggests that neither of the interventions – MST nor usual services as a group – performed well when criminal behaviour is the target outcome. The only predictor variables of conviction were age at first conviction and extent of pre-referral criminal record. This suggests that the trajectory toward criminal behaviour put into play prior to referral had not been interrupted by any of the interventions.

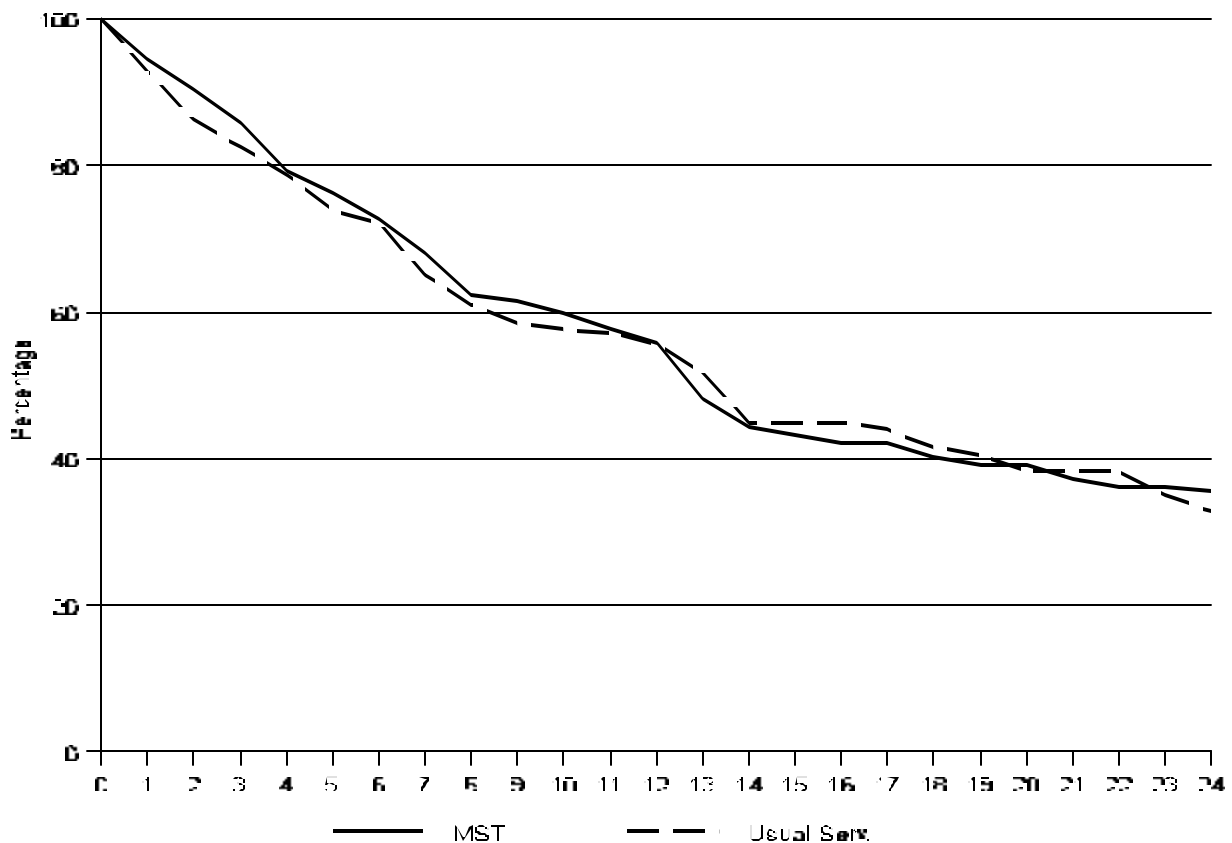
By three years after discharge, 80% of the youths had been convicted at least once. Only variables related to pre-referral criminal record predicted post-discharge conviction.

In the developmental phase of this project, these conclusions were made:

- MST was tested because it promised to be a cost-efficient, community-based option to keep high-risk youth out of custody without putting the community at risk
- American research had demonstrated the *efficacy* of MST but still at issue was its *effectiveness* in “real world” settings when evaluated independently of its developers, in the Canadian context
- The overarching intention of the Ontario project was to determine if MST would be followed by lower levels of recidivism and correctional service expenditures than existing services
- The randomized research design was the only way to answer research questions posed by stakeholders

Figure 1.1

Compilation of Available Follow-up Data to 24 Months as a Survival Curve, Convictions for All Offences, n=380 (0 to 6 mos.), 323 (7 to 12 mos.) and 192 (13 to 24 mos.)



The Centre for Children and Families in the Justice System of the London Family Court Clinic undertook the evaluation while eight community agencies (described in chapter six) collaborated to deliver MST in four parts of Ontario: Simcoe County, London, Mississauga and Ottawa.



The key research question was this: could MST lead to lower levels of criminal convictions than the services already available for young offenders in Ontario?

With the interim data available thus far, having tracked the recidivism of 380 youth to September of 2001, these observations can be offered:

- overall, there were no differences between the post-discharge conviction rates of the MST and usual services groups and group membership does not predict likelihood of conviction
- there are no differences in time to conviction, rate of admission to sentenced custody, time to admission to custody, number of days in sentenced custody, number of days in open custody, number of days in secure custody, number of offences of conviction, or number of prosecutions
- there were some promising patterns in the number of offences of conviction – particularly for breach of disposition – that are reflected in a small effect size of .26 in one outcome measure when excluding non-recidivists from the analysis
- MST recipients were more likely to be sentenced to a period of open custody and less likely to be sentenced to a period of secure custody, differences which were statistically significant
- there are many outcome differences among the sites but in no site was the effectiveness of MST versus usual services demonstrated using tests of statistical significance
- the MST dropouts evidenced more recidivism compared with both the MST completers and the usual services group
- when MST drop outs are excluded from the analysis, the MST completers have fewer offences of conviction, fewer administrative offences (other than breach of disposition), and fewer average days in secure custody than the usual services group
- it does not appear that the seriousness of offences committed in the follow-up period has been affected by the MST intervention
- while the response rate at discharge suggests that caution should be exercised in interpretation, both groups evidenced some aggregate improvement on all the psychometric instruments used at intake and discharge
- the improvements of both groups were statistically significant for parent report of family cohesion, family functioning, externalizing symptoms, and social skills of youth, as well as youth report of externalizing symptoms
- controlling for the increases observed in the usual services group, the MST group improved significantly better on parent report of family adaptability, caregiver depression, and externalizing

symptoms of youth, as well as youth report of internalizing symptoms (e.g., anxiety, self-esteem)

- the per-case cost of MST during the study was extraordinarily high because of low referrals
- however, under non-research conditions, it is estimated that the MST will cost \$6,000 to \$7,000 per case in Ontario, an amount equivalent to 30 days in open custody and 20 days in closed custody
- preliminary results suggest that the cost of MST may be recouped by savings to the correctional system in one site
- we await the results of an independent benefit/cost analysis to make conclusions about cost savings to the criminal justice and youth correctional system
- at this point, \$5.8 million have been spent to incarcerate these 380 youths since discharge, a number that will grow as the follow-up continues
- almost \$1 million has been spent so far in incarcerating these youth for administrative offences alone
- there are some small differences in the effect of MST for males and females that must be monitored further before conclusions can be made
- In Ottawa, a study of police occurrence records showed that 38% of the MST group had no contact with the police (e.g., as suspects in cases where no charges were laid). The same was true for only 28% of the usual services group.

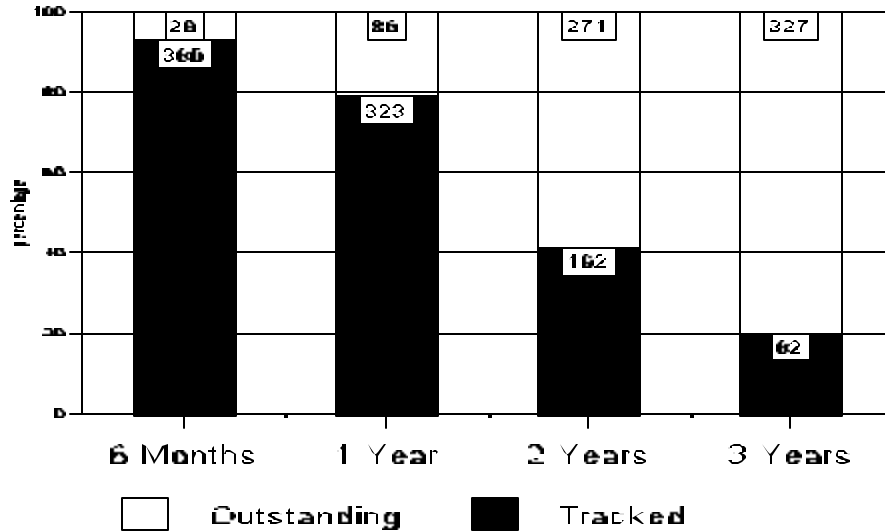
Almost \$6 million has been spent so far incarcerating these 380 youth during the follow-up period (not including pre-trial detention and adult sentences) for fewer than 400 offences involving victims.

It is important to stress that this document is an interim report, comparing the relative outcomes of youths in the two groups, 380 of whom have spent at least six months since the termination of treatment. We will track the youths until 2004, when each has been followed for three years. The status of the follow-up is shown in Figure 1.2. We are still at least one year from having definitive answers about the long-term effectiveness of MST in reducing youthful offending in Ontario and readers are cautioned to interpret the results presented here in that context. Still outstanding are the following sources of information:

- recidivism data for all 409 youth tracked for three years
- the results of an independent benefit-cost analysis using these data, to be available in 2002
- the results of a multi-site study conducted by the Medical University of South Carolina and funded by the National Institute of Mental Health on the link between adherence to the MST method and recidivism in Ontario
- secondary analysis of the data presented here, for example, to identify characteristics of recidivists, characteristics of those for whom MST was helpful, and the relative outcomes of sub-groups such as Aboriginals or those under 12 years of age at referral

We will also seek funding to compare the two groups using non-criminal justice indicators such as admission to residential treatment, school completion, social assistance rates, and employment. It would also be possible to extend the follow-up of these youth to learn more about the criminal trajectories of youth.

Figure 1.2
Status of 409 Cases at Four Follow-up Points, September 2001



This is an interim report and several key pieces of information remain outstanding.

Multisystemic Therapy

Traditional intervention approaches represent the science of fixing strange and maladaptive behavior of children in strange situations with strange adults for the briefest periods of time. By treating the "pathology" of the child outside the boundaries of the community, and with little regard for the ecological systems that influence and are influenced by such behavior, the ultimate effectiveness of traditional intervention practices may be limited.³

MST is an intensive, home-based intervention for serious young offenders. At agencies in four Ontario communities (London, Mississauga, Ottawa and Simcoe County) teams of therapists were trained in the provision of MST and 409 families agreed to assist with the research. All the youths had been referred because of concerns their criminal behaviour would continue in the absence of an effective intervention. Treatment-resistant youth or those with serious criminal histories were not disqualified but, for the four-year research period, families and youths had to agree to participate in the study to qualify for the MST intervention. In addition, sex offenders were excluded (information on the inclusionary and exclusionary criteria is found in Appendix A).

Treatment Theory

As discussed more fully in the fifth chapter of this report, MST was selected as an intervention for study in Ontario because randomized studies carried out by its developers at the Medical University of South Carolina suggested it might be a cost-efficient, community-based option to keep high-risk youth out of

residential placements such as custody. The assumptions underlying the development and use of MST are:

- the criminal behaviour of youths is influenced by many factors in their social world (family, peers, school, etc.) so treating the youth in isolation of these factors will be ineffective
- the social world, or ecology, should be the “identified client” rather than the individual
- most youthful criminal behaviour is transitory and will desist with the passage of time so intensive interventions should be targeted at those who are most likely to continue offending into adulthood
- most justice interventions are ineffective in reducing criminal behaviour in youths who are most likely to continue offending into adulthood
- most residential programs are ineffective in addressing the needs that prompted admission
- most justice interventions place youths in close contact with other criminally involved youth and this in turn can increase their likelihood of re-offending
- every youth is unique so an intervention should be tailored to individual needs and the circumstances of their social world that create criminal behaviour and serve as barriers to its reduction
- traditional focus on problem areas should be augmented with attention to the identification and amplification of strengths in both youths and their ecology
- social service intervention is always episodic so the parent or parent surrogate is the key agent of change and should be empowered by the therapist to make and sustains the gains themselves

MST was designed for chronic or violent young offenders and is tailored to their individual needs. Youths were considered candidates for MST if they had histories of criminal behaviour and were identified as having a high or very-high risk of continued offending. Most youth had a constellation of other presenting problems that included school refusal, aggression, substance abuse, non-compliance, risk taking, or severe parent/child conflict.

One of the assumptions underlying MST is that youth should be treated in their own homes because most traditional interventions place youths in close contact with other criminally involved youth. This, in turn, can increase their likelihood of re-offending

Treatment Modality

MST adopts the family preservation modality of intervention. Services are delivered to the whole family (rather than the “identified client” of the youth), targeted at those in highest need of intervention, time-limited (one to four months), flexibly scheduled, delivered in the home, tailored to the needs of family members, provided in the context of a family's values, beliefs and culture, and available 24 hours a day, seven days a week. MST therapists carry small caseloads of four to six families and will probably make several visits each week to the family home with an anticipated average of two to 15 contact hours per week, more in the early weeks and less as the case nears closure.

Training and Supervision

MST is an intervention with a high degree of treatment integrity. There is a detailed manual with nine treatment principles and an intensive training regime overseen by MST Services Inc. of Charleston, South Carolina, involving close supervision and stringent and continuous monitoring of adherence to the method. Training begins with a one week orientation followed by on-going weekly consultations on each case and quarterly boosters. This topic is discussed in detail in the fifth chapter of the report.

Considerable care and expense were expended in adhering to the treatment model through rigorous compliance with the training and supervision requirements outlined by MST Services Inc.

Evaluation Strategy

Most programs designed to reduce crime have never been rigorously evaluated. Some interventions may be working and we don't know it, while others may not be effective yet absorb scarce tax dollars that could better be directed toward effective programs.⁴

It was decided early in the project development phase that attempts to implement MST in Ontario had to occur within the context of a randomized study. While never used before in the Canadian youth justice system, this methodology was fast becoming the norm in the United States. Randomization is necessary to test the effectiveness of MST in Ontario compared with already available services, to determine the generalizability of American findings to Canada, and to address the need for an evaluation conducted independently of the developers of MST. The study was multi-site, to monitor the implementation and effectiveness of MST in areas that varied in terms of size, urbanism, and resource base. The type of referral varied as a result, as described in the sixth chapter.

Efficacy and Effectiveness

As discussed later in the report, studies carried out in the United States suggested MST might contribute to public safety in Ontario by reducing levels of criminal offending which, in turn, could translate into cost savings in two important sectors: 1) state-paid justice services; and 2) losses experienced by crime victims. Indeed, MST's developers at the Medical University of South Carolina had conducted \$10 million of research to determine that MST is an *efficacious* intervention (see Table 1.1). Still unknown when the project began in 1997 was the issue of *effectiveness*. Could MST be implemented under conditions typically found in community agencies, and would the South Carolina results be replicated in these settings?

Table 1.1

The Three E's of Outcome Evaluation

| | |
|---------------|--|
| EFFICACY | this intervention can work under rigorous conditions of implementation such as when program deliverers are supervised within the context of a well-funded research study |
| EFFECTIVENESS | this intervention can work when implemented in the "real world" |
| EFFICIENCY | this intervention achieved the same (or better) outcomes at less cost per unit of outcome when compared to other interventions |

While MST had achieved excellent results in American studies, its effectiveness in the field was still at issue in 1997

Some of the “real world” contingencies potentially affecting the *effectiveness* of MST were these: most services programs are not overseen by supervisors with doctorates; few agencies can financially compensate therapists for achieving good outcomes; we cannot pay participants for cooperation with MST; community programs are funded at lower levels than in large-scale studies and constantly face the prospect of budget cuts; many agencies are unionized meaning that demands on therapists may conflict with previously negotiated working conditions; without a research component case outcomes are not usually monitored; and, many small agencies cannot re-allocate the critical mass of therapists needed to create an MST team. In addition, the training, consultation and licensing by MST Services Inc. are extremely expensive, costs borne by the government during the study but which would normally be absorbed by local agencies.

Need for Independent Evaluation

Also a factor, all available research has been conducted by the developers of MST. Would an independent evaluation produce the same results? The Ontario study was the first replication of MST outside the Family Services Research Center at the Medical University of South Carolina. That group had spun off into a new organization, MST Services Inc., charged with disseminating the model validated by the university centre. MST Services Inc. evolved over the four-years of the Ontario project as experience was gained with supporting long-term implementation of MST in the field.

All research on MST has been carried out by the developers of the intervention. Would an independent evaluation produce the same results?

Three other independent randomized studies have been carried out in the United States – Texas, Ohio and Delaware – but no results have been published.

Applicability of American Findings to Canada

Another important question was this: would the American results generalize to Canada? Compared with the impoverished and service-deprived communities in which MST was initially tested, Ontario young offenders have access to a superior array of services, including universal medical care. In the American studies, they offered medical services as part of the intervention, and they used a different outcome measure (i.e., arrest) measured by a local data base. In contrast, we used the national CPIC system of the Royal Canadian Mounted Police to measure convictions for criminal offences. Finally, the American projects were richly resourced. On the other hand, the Ontario teams used the same training and consultation, boosters, adherence measure, the same criteria for case closing, and the same on-site clinical supervisory model.

Experimental Design

The nature of the research questions under consideration here – focusing on outcome and efficiency – dictated the use of a scientifically rigorous methodology including an experimental design, large representative sample, and long-term follow-up. The federal Department of Justice (and later the National Crime Prevention Centre) provided the research funding and the Ministry of Community and Social Services, joined in the last year by the Ministry of Correctional Services, funded the provision of MST in Ontario.

The research protocol, described in Appendix A, involved selecting the highest-risk cases and

randomly assigning half of them to MST while the other half continued with the services otherwise available in the local area. The result was two groups that were exactly the same except for the type of intervention. This would test if MST could lead to lower recidivism and lower rates of correctional service utilization than the services already available. Random assignment does not guarantee a perfect study because other problems can occur such as inability to gather valid outcome data. But the technique has been used to signal as ineffective some treatments, such as boot camps.⁵ Such information benefits the field by prompting program modifications aimed at improved effectiveness. In recent years, there has also been an explosion of interest in cost/benefit studies, which typically require experimental designs.

The total number of referrals was probably lower than it would have been without the random assignment. While there was a theoretical capacity to service 400 families (meaning a total research sample of 800), about 200 families began MST over the 40-month period during which research referrals were accepted. It is also possible that the referral profile was affected by the research design, if the youth referred were not typical of those who would have been referred in the absence of random assignment. This factor may affect the generalizability of the findings.

Generally, we are confident that, as discussed in later chapters, this sample contains a group of youths and their families that represents the greatest challenge to existing services and who constitute a high risk to commit criminal offences in the future. In the end, the integrity of the random assignment process (described in Appendix A) was maintained for the entire four years and we have no reservation in saying that the two groups – the MST group and the usual services group – were the same. This is an important accomplishment for Canadian research because it documents that experimental designs are feasible.

Outcome Measures and Follow-up

All youths are tracked for three years to gauge offending and levels of correctional service utilization at six, 12, 24 and 36 months after the case is closed. The case is closed in the case of the MST group at the last session with the family. For the control group, the case is considered closed six months after the family signs the consent to participate in the study. If the youth is in custody at case closure, true of 3.5% (nine MST recipients and five members of the usual services group), the date of the follow-up starts when the custody sentence ends. The indicator of “recidivism” – conviction for a federal/criminal offence – is an underestimate of the true level of crime. However, the factors that contribute to this error -- including failure of victims to report, police inability to apprehend the perpetrator, clearance by other than charge, diversion, and pre-adjudication termination in the courts -- will affect both groups equally.

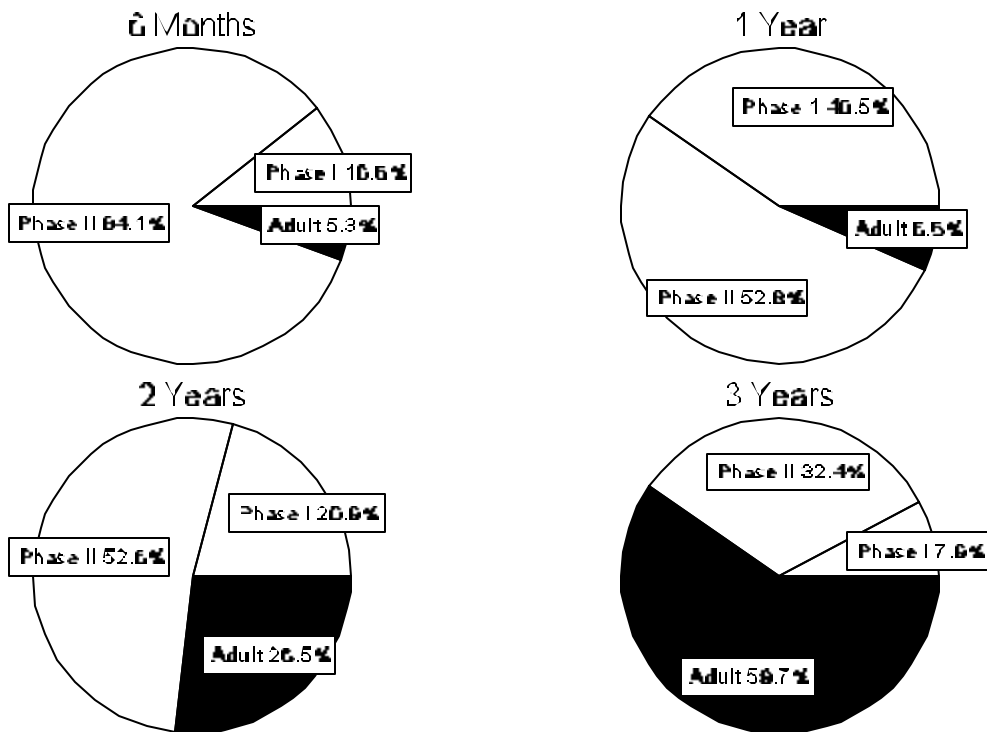
Offending is measured with reference to the Canadian Police Information System (CPIC), administered by the Royal Canadian Mounted Police. This system has the advantage of being national and of being able to follow the youths after they reach adulthood. Two limitations are important to note, however. First, a “CR” check of CPIC lists convictions rather than arrest or charge. The American MST research uses “arrest” as the outcome. There is not a 1:1 correspondence between arrest and conviction and direct comparison is unwise. Second, it is not possible to determine the timing of the offence(s) that resulted in the conviction. Some of the convictions registered in the discharge period will have been for offences committed during the period of intervention, perhaps even prior to the referral. However, this factor will affect the MST and control groups equally.



The measure of offending used here is not a valid reflection of all criminal behaviour but the factors that create bias and reduce validity will affect both groups equally.

As of this writing, 380 youths have been tracked at least six months post-discharge, 323 have reached one year post-discharge, 192 are two years post-discharge and 82 have reached three years (Figure 1.2 above). One youth was killed in a traffic accident. Tracking of recidivism is on-going, until all youths have been monitored for three years. This will follow them through three correctional jurisdictions (see Figure 1.3). When the follow-up period commenced, at discharge, the majority of the youth (75%) were still under 16 years of age, falling under the jurisdiction of the Ministry of Community and Social Services (MCSS) if they offended and were subjected to a correctional intervention. Six of them (1.5%) had reached the age of 18, making them adults for legal purposes. The follow-up process tracks the youth as they mature through the jurisdictions of MCSS (the so-called Phase I young offender system for ages 12 to 15), into the Phase II young offender system (ages 16 and 17) and in many cases into the jurisdictions of the adult penal system. The individuals in these last two groups would be the responsibility of the Ministry of Correctional Services. The distinction between Phase I and II systems will end at some point this year.

Figure 1.3
Correctional Jurisdictions of Youth at Four Follow-up Points



Post Hoc Analysis: Why Weren't the American Findings Replicated in Ontario?

Replication protects against drawing a false conclusion about a treatment based on some anomaly affecting the study results and is a key feature of the well-established treatments. The criteria for a well-established treatment include the stipulation that a replication study must be conducted by independent investigators or investigatory teams. ... a replication increases confidence that the attained treatment effect was not due to chance ⁶

These interim findings confirm the wisdom of conducting a randomized test before decisions were made about the wide-spread adoption of MST in Canada. The results of MST studies in Simpsonville and Missouri (see the fifth chapter) will probably not generalize to Canada. In contrast, the Ontario data more closely match findings of the Charleston and multi-site studies (also discussed in the fifth chapter) where significant differences were not found.

One can only speculate on the reasons, but hypotheses cluster into four categories: context, youth, implementation, and research methodology. The research that demonstrated the *efficacy* of MST for young offenders in the United States was conducted in Simpsonville, South Carolina (n=84), and Missouri (n=200), under well-resourced and scrutinized conditions of implementation with the delivery of MST supervised by the method's developers. Those considering the adoption of MST for youthful offenders should assess the extent to which the Simpsonville and Missouri findings might generalize to their jurisdictions. Conversely, some areas may conclude that the conditions of implementation in the Ontario study would be similar to how they might implement MST.

The Canadian Context

Despite our common border and many cultural similarities, Canada and the United States are different. Few Canadians would dispute that observation. Included among the many differences are the nature of our justice systems⁷ and, arguably, the level of social services for those who struggle with mental health issues, family problems, and educational challenges. Indeed, the youths referred to the MST project in Ontario typically had a lengthy history of mental health, child protection, and/or other social service involvement. Like all Canadians, they had universal access to medical and hospital services. The services received by participants not assigned to MST (described in the sixth section of this report) were provided based on need rather than ability to pay.

In contrast, in the American MST studies, youths assigned to the "usual services" group received little in the way of helpful services. Neither of the usual service types – probation nor individual counselling – have tested well in previous evaluations. The strong results in favour of MST may have reflected the benefits of an intensive service with high integrity compared with a low-intensity intervention that is not appropriately targeted. If that is true, the American results do not speak to the effectiveness of MST as much as they do to the effectiveness of that class of similar programs. The effectiveness of MST relative to similar programs would remain an outstanding issue.

Might MST be more effective in Ontario jurisdictions with a lesser array of resources for young offenders? This possibility is suggested by some promising results in the rural site of Simcoe County. Arguably, the small population base and the geographical dispersion of the populace suggest that the number of available services might be lower. Also, being a home-based intervention, MST may have appealed to families who do not normally access services because of distance and transportation problems. These families would not have the lengthy history of other therapeutic interventions that characterized much of the Ontario sample.

Conversely, the weakest results were observed in London where the control group had access to a

strong and varied array of services. In the other three areas, most members of the control group received probation as the “usual service.” In London, almost all members of the usual services group received one of a spectrum of therapeutic interventions available through the Safer Community Program. Interventions available to the control group are described in the sixth chapter.

Recommendation 1: Agencies and others considering the adoption of MST for young offenders should compare the alternative services in their jurisdictions to those available to youth in the South Carolina and Missouri studies, to assess the generalizability of the American MST research to their jurisdictions.

Characteristics of the Youth

A second factor that could explain the failure to replicate the American findings in Canada is that the youths might have been different. They were similar to the American samples in terms of age (mean and range), sex breakdown, and rate of lone-parent families. However, they may have differed on socio-economic status and criminal history. The developers of MST describe the youth in their samples as “economically disadvantaged,” “inner city” youth with below average socio-economic status as measured by the Hollingshead system. Median incomes were in the \$5,000 to \$15,000 (USD) range.

The families in the Ontario study may not have been as economically deprived as the participants in the American MST studies. There was a segment, about a third, with welfare dependency, poor educational achievement and low socio-economic status.⁸ There were also middle class families with good educations and high incomes. In our sample, 30% had annual family incomes of over \$30,000 and the median income category was \$20 to 30,000 (CDN). Access to social service interventions was not limited by income nor did it require insurance coverage. Accordingly, these families had been able to access a wide range of pre-referral services. These youth could have started the project as a very different group compared with the American youths.

It is also the case that one third of youth referred to MST did not have histories of criminal convictions. This was true in two sites because of local arrangements made with funders (see Tables 6.2 and 6.4 in a later chapter). It was a requirement of referral (see Appendix A) that each youth had a *history* of criminal behaviour but only 52% of youths in London and 33% of youths in Ottawa had prior criminal *convictions*. Among youths in this sample, 25% had spent at least three weeks in sentenced custody (i.e., excluding detention) before referral, compared with rates in the American studies that ranged from 59% to 63%. It is not apparent from the MST studies if detention is included in their figures.

While youth in the American MST studies may have had more serious criminal histories than the Ontario youth, MST in Ontario was somewhat more successful when the youth had no official prior record at referral (see Tables 1.2 and 1.3). It is also the case that youths referred through the justice system fared somewhat better (Tables 1.4 and 1.5). The Number Needed to Treat⁹ (NNT) figure is lowest for the youths with no record at referral.

Readers interested in how these findings might generalize to their jurisdictions should compare the youth in our sample to their target client group. Characteristics of the youths and families are discussed in the sixth section of the report and tabled in Appendix C.

Recommendation 2: Agencies and others considering the adoption of MST for young offenders should compare the characteristics of their target client group to those studied in South Carolina and Missouri, to assess the generalizability of the American research findings to their jurisdictions.

Table 1.2

Rates of Conviction in Follow-up and NNT, by Conviction at Referral

| | MST | Usual Services | NNT |
|-----------------------------------|-------|----------------|----------|
| EXCLUDING ADMINISTRATIVE OFFENCES | | | |
| Under 12 (n=23) | 18.2% | 8.3% | negative |
| No record at referral (n=101) | 31.3% | 34.0% | 37 |
| Prior conviction(s) (n=256) | 52.2% | 51.7% | negative |
| ALL OFFENCES | | | |
| Under 12 (n=23) | 18.2% | 8.3% | negative |
| No record at referral (n=101) | 37.5% | 39.6% | 48 |
| Prior conviction(s) (n=256) | 58.7% | 59.3% | 167 |

Table 1.3

Relative Proportions Sentenced to Custody in Follow-up and NNT, by Conviction at Referral

| | MST | Usual Services | NNT |
|-------------------------------|-------|----------------|-------|
| Under 12 (n=23) | 0 | 0 | n/a |
| No record at referral (n=101) | 18.8% | 24.5% | 18 |
| Prior conviction(s) (n=256) | 45.7% | 45.8% | 1,000 |

Table 1.4

Rates of Conviction in Follow-up and NNT, by Referral Source

| | MST | Usual Services | NNT |
|-----------------------------------|-------|----------------|----------|
| EXCLUDING ADMINISTRATIVE OFFENCES | | | |
| Probation or police referral | 46.7% | 44.9% | negative |
| Other | 43.2% | 41.1% | negative |
| ALL OFFENCES | | | |
| Probation or police referral | 52.0% | 52.0% | infinity |
| Other | 50.0% | 46.4% | negative |

Table 1.5

Relative Proportions Sentenced to Custody in Follow-up and NNT, by Referral Source

| | MST | Usual Services | NNT |
|------------------------------|-------|----------------|----------|
| Probation or police referral | 38.8% | 40.2% | 71 |
| Other | 29.5% | 28.6% | negative |

Implementation in Ontario

One of the challenges facing the developers of MST is how to promote its widespread but still effective use. In this task they are far from alone. The successful implementation of programs with demonstrated efficacy has become a topic of considerable discussion.¹⁰ Developing and identifying efficacious programs is only the first step in creating effective programs in the field.¹¹ Poor programs implemented well will not be effective, but the same is true of good programs implemented poorly (see Table 1.6).

Table 1.6

The Sources of Good Outcomes for Children and Families, Fixen et al. (2001)

| Program Characteristics | Poorly Implemented | Well Implemented |
|------------------------------|--------------------|------------------|
| Replicable effectiveness | Poor outcome | Good outcome |
| Non-replicable effectiveness | Poor outcome | Poor outcome |

Source: D.L. Fixen, K.A. Blase, G.D. Timbers and M.M. Wolf (2001). In Search of Program Implementation: 792 Replications of the Teaching-Family Model. In G.A. Bernfeld, D.P. Farrington and A.W. Leschied (eds.), *Offender Rehabilitation in Practice: Implementing and Evaluating Effective Programs*. Chichester: John Wiley & Sons Ltd., pp. 148-166.

Attention is thus turned to the nature and context of implementation. In the Ontario MST project, one of the key research questions was this: “can MST be implemented effectively here?” As discussed in the fifth section, MST is a challenging, and expensive, intervention to implement. The four teams underwent all prescribed training and were monitored on a case-by-case basis by a consultant at MST Services Inc. for almost three years. Each new therapist who joined an MST team underwent the initial one week of training from MST Services Inc., at a cost borne by his or her agency. Use of an MST adherence instrument (described in Chapter Five) suggests that fidelity to the model was generally achieved.

Perhaps the MST delivered in Ontario was different than the MST tested in South Carolina and Missouri. There, the MST therapists were trained and closely supervised by the method’s developers under well-resourced conditions of implementation. With smaller samples, the aches and pains of keeping a project going for many years may not have been as evident. Therapists received financial bonuses when good outcomes were achieved. And, of no small consequence, the usual services group received less intensive interventions.

In Ontario, the substantial costs of MST training, consultation, supervision and licensing were borne by the provincial government, to facilitate the research. However, two assumptions made in 1997 have not proven valid with experience:

1. the cost of MST would be re-couped by savings associated with lower recidivism; and,
2. payments to MST Services Inc. would cease after one year.

Soon after project start-up, new research data were released by the developers of MST suggesting that termination of their oversight would be unwise, for this or any other MST project. Demonstrating considerable patience and commitment, the provincial government extended the contract with MST Services Inc. In all, over a quarter of a million dollars were spent in various phases of the project. The deteriorating

exchange rate saw the costs increase over time even when the price of services in U.S. dollars remained the same. (The costs of MST are detailed in the fifth section of this report.)

The on-going payments being onerous, there was a need to develop independence from MST Services Inc. to reduce these costs. Otherwise, it would be pointless to promote MST as a viable option in Canada. Outside the cocoon of a demonstration project, few non-profit agencies could absorb the cost. Could MST be effective under conditions typically found in the field? To answer that question, it was necessary to explore if MST could be delivered, with effectiveness, independent of MST Services Inc. A new relationship with MST Services Inc. was negotiated, one where the Ontario teams took more responsibility for their own supervision and where consultation continued in a modified form for the last year of the project. Perhaps the quality of MST suffered as a result. But, were this to be so, it would compromise the utility of MST for daily work in youth.

Perhaps also important was the background context of Ontario, a topic discussed in the fourth chapter of this report. The American studies were extremely well funded. In Ontario, MST was first implemented in a climate of severe budget cuts. In some areas, the money to fund MST had been taken from the budgets of other local agencies, creating hard feelings in some communities. There was unrelenting uncertainty about the continuation of the MST project. Services were offered by non-profit agencies in a climate where the spectre of privatization of justice services loomed in the background. It was an American intervention unwelcomed by many. Lastly, the project was affected by factors commonly experienced by MST teams including burnout and turnover of therapists.

Recommendation 3: Agencies and others considering the adoption of MST should assess their ability to devote on-going funding to MST Services Inc. for training, consultation and licensing.

Research Methodology

In Ontario, the methodology was designed to answer the research questions listed in the next chapter. The key outcome measure was criminal *conviction*, not *arrest* as in the American research. This outcome was appropriate for Ontario because funding came from the provincial ministry paying for Phase I correctional interventions. The Ontario government wanted to know if MST would reduce post-conviction costs, specifically the costs of youth custody. There is not a 1:1 correspondence between arrest and conviction, perhaps explaining why results of U.S. studies were not replicated. We also had the ability to track convictions for 100% of the youth across Canada. In the American research, only local offending was measured.

Would we do anything differently in retrospect? Perhaps the treatment effect of MST was manifested in domains not measured: school completion, employability, or need for residential treatment. Had these other outcomes variables been the explicit target, it is likely another intervention would have been selected. Recidivism was the outcome used here because it was in the domain of criminal offending and incarceration that MST promised to make improvements. Recidivism was also the variable of interest to funders.

There were also some hypotheses for between-group differences for which we could not control. Those who made key decisions about the youths (e.g., arrest, breach or sentence) were not blind to the group assignment. It is possible that decisions were affected by knowledge that an individual youth was or had been an MST recipient. Another potential confound for which we could not control was the fact that the MST intervention may well have increased the likelihood of convictions. This could have happened

because of improved parental communication with the probation officer. One of the differences apparent between the two groups is that the MST youth were more likely to be convicted of administrative offences such as breach of disposition in the absence of a criminal offence that involved a victim. For example, a youth might have been breached for a technical violation of probation conditions.

Finally, these results are interim. They are released now because funders of correctional programs need to make decisions about future resource allocations where MST is concerned. It is possible that when all data have been collected, the conclusions about effectiveness will be different.

It is possible that the final results in 2004 could be different from those presented in this interim report.

Ecological Model of MST Implementation

Program effectiveness depends as much on the quality of implementation as the type of intervention. Many programs are ineffective not because their strategy is misguided, but because the quality of implementation is poor.¹²

The ecology of MST implementation is as complex and as important as the ecology that creates and sustains criminal behaviour in youth. Interpreting the data here requires a consideration of the entire context of implementation.

Experience over these four years has taught us a great deal about the extraordinary effort required to achieve and sustain positive outcomes when using even the most efficacious of interventions. Any expansion of MST availability in Canada should be carefully planned and accomplished with due consideration of factors that will enhance the effectiveness of MST: selection of most appropriate candidates as MST therapists, MST-specific training, agency support, supervision, high levels of adherence to the MST model, and limitation of referrals to seriously criminally involved youth. The challenges faced in doing so – for MST or any other best practice approach -- are not to be underestimated. After these five years, it is little wonder to us that most interventions “don’t work.” Providing effective interventions is hard work, at all levels of implementation.

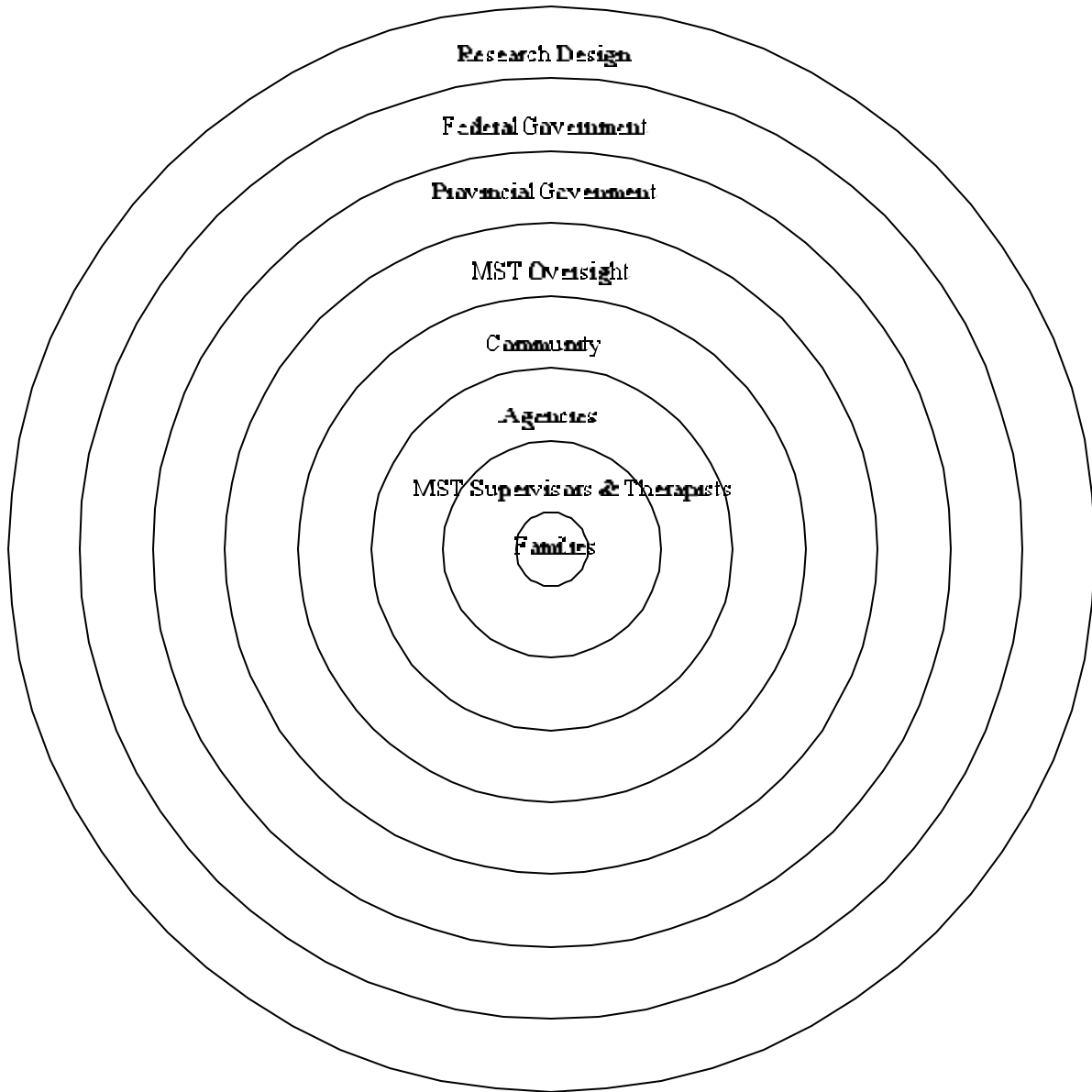
A page has been taken from the MST method itself and an ecological model was devised. This report is structured in such a way that places the empirical results in the context in which they were shaped and in which they should be interpreted. The findings are a function of the interplay of all the factors listed in Figure 1.4 and the structure of this report reflects that ecology.

The report is structured according to the ecology of MST implementation, considering the context in which the project unfolded.

Federal Government

The federal government seeks to reduce an “over reliance” on custody as a sentence in Canadian youth courts through legal reform, cost-sharing arrangements, and the funding of innovative pilot projects. Reasons for high custody rates are probably varied and complex. However, the frequent use of custody to enforce non-compliance with probation is likely one of those factors. Concentration of intensive programs in custody facilities is another. Ultimately, if the best resources are in institutional settings, well-meaning judges will direct youth there in the hopes of helping them.

Figure 1.4
Ecological Model of MST Implementation in Ontario



The Department of Justice through the National Crime Prevention Centre (NCPC) funded three years of the evaluation to determine if MST could be a viable, community-based disposition for serious young offenders in Canada. Because of ethical and legal issues, it was not possible to test MST versus youth custody in terms of effectiveness. We assumed only that the control group received the “usual services” available in their communities. We know that 19% of the usual services group spent some time in sentenced custody during the six-month period after their intake into the study, almost always for offences committed prior to referral. The same was true of 17% of the MST group. (The MST intervention could continue if a custody sentence was less than 30 days. For longer sentences, the case was closed.)

The NCPC promotes the use of benefit-cost analyses for the evaluation of crime prevention programs. The NCPC has commissioned an economist to develop a benefit-cost framework which will be pilot tested with the MST data. The results should be released later this year. The MST intervention is estimated to cost about \$6,000 to \$7,000 per youth under non-research conditions, although the cost was substantially higher during this study.

Provincial Government of Ontario

Since the inception of the MST project, the political ecology in Ontario has shifted significantly to the right with the replacement of a social democratic party by a right-wing conservative party in 1995. The origin of the MST project in Ontario dates to prior this election, however, when key policy officials in the Ministry of Community and Social Services (MCSS) became aware of the MST research results from the United States. This group shared these assumptions:

- Ontario’s rate of youth custody (40% of convictions in 1999/00) is unacceptably high
- paying for the expensive custody option means little funding is left over to fund community-based programs
- existing custody programs do little to ameliorate the underlying causes of criminal behaviour among youths whose offending is linked to family and emotional problems
- programs delivered in the community have a better chance of being effective than institutional programs in this group of offenders
- MST appeared as a promising intervention that could be added to the available spectrum of services to assist the “high-end” cases
- prevention of youth crime is the responsibility of the entire community, not just the criminal justice system

With concern expressed about the generalizability of American findings to Canada, it was resolved that MST in Ontario be delivered within the context of a randomized trial for four years.

High on the agenda of the new provincial government was a series of initiatives aimed at getting “tough” on crime by getting tough on offenders. Many correctional initiatives, such as the politically motivated boot-camp, were ideas handed down from the provincial cabinet. In contrast, the MST project was a bottom-up initiative that was directed by ministry officials to operate below the radar of members of the provincial legislature. Despite the four year funding commitment from the four local area offices of the Ministry of Community and Social Services (MCSS), therapists were repeatedly warned by the corporate

office that the MST project could end abruptly at any point. These admonitions did little to create a sense of stability and job security among the therapists and may have contributed to the high-rate of attrition.

Nevertheless, the MST project found the support of some provincial politicians, for whom the effectiveness and cost-efficiency analyses were appealing. MST also fit perfectly within MCSS's goals for young offender programming in 1997: maintenance of community safety; cost-efficiency; responsiveness to individual needs; reduction of future recidivism; and, provision of a spectrum of services that addresses all young people according to their levels of risk and need. In terms of its young offender programming, MCSS had voiced an intention to adopt evidence-based interventions, so the MST project with its randomized design was in keeping with that intention. For the last year of the study, beginning in April of 2000, referrals of Phase II young offenders were also welcomed from probation/parole officers of the Ministry of Correctional Services.

MST Oversight

The fifth chapter of the report describes multisystemic therapy and the role of MST Services Inc. in the Ontario study. Key observations and conclusions are these:

- evidence for MST's efficacy comes from two randomized studies, conducted in Simpsonville, South Carolina, and Columbia, Missouri
- two other randomized studies failed to find significant differences in re-arrest after treatment
- MST adopts a family preservation treatment modality that involves intensive work with a small number of families
- MST is an expensive intervention to implement with a high "per case" cost, attributable to the low therapist-to-family ratio and the high cost of training and consultation
- the high cost of MST is expected to be recouped by down-stream savings in correctional costs
- use of the MST approach requires a long-term financial commitment to the American corporation that undertakes the training, consultation and licensing
- fidelity to the MST model as measured by the Therapist Adherence Measure (TAM) has a moderate statistical association with levels of recidivism in the American research
- unlike Ontario, many U.S. jurisdictions are adopting the MST approach without first testing its effectiveness in their areas

Communities and their Agencies Delivering MST

The research was conducted on a multi-site basis to generate a large sample size. Also important was the desire to study implementation and outcomes in four types of Ontario communities: large and small, urban and rural. Each participating agency agreed to the minimally acceptable procedures and standards recommended by MST Services Inc. Each team was trained by MST Services Inc. and underwent the same consultation and supervision. In each community, a unique referral system was negotiated and harmonized with the research protocol. The type of youth referred varied, as explained in the sixth chapter.

Participating Families

The characteristics of the youths and their families can be found in appendix C. In the sample as a whole, 74% were males. The average age at referral was 14.6, including 27 youth from Ottawa who were under 12. Thirteen percent self-identified as Aboriginal.

In all, 64% of the youth were referred to the MST project by probation officers, including 11 from the Ministry of Correctional Services. About one third had no record of prior criminal convictions at referral although there had to be evidence of past criminal behaviour in order to qualify for MST. Almost one third (30%) had been sentenced to at least one sentenced custody stay prior to referral. On average, the youth with prior convictions had served 47 days in sentenced custody (excluding detention unless it was accommodated as time served).

A clinical profile was drawn from psychometric testing completed by the youth, caregivers and teachers. According to parent ratings, 84% of youth were over the clinical cutoff for conduct problems and half were over the cutoff for depression (Table C.12). Youth self-reports were only slightly lower, with 61% placing themselves over the cutoff for conduct and 48% for depression (Table C.15). One third of parents placed themselves over the cutoff for caregiver depression and poor family functioning (Table C.13). Teachers rated the youths as low on academic competence and social skills, placing almost all of them at or below the tenth percentile (Figures C.3 and C.4).

The Future of MST in Ontario

As this report is written, there is an enormous interest in what the Ontario data suggest should be the next steps for MST in Canada. The Centre for Children and Families in the Justice System will continue to monitor the follow-up data and provide periodic research updates. In one more year, we should have a more complete understanding about the effectiveness of MST. In the meantime, those interested in how these results might generalize to their areas should consider the entire ecology of implementation in the Ontario study.

MST is an extremely difficult intervention to implement and its use in Canada should be undertaken with great caution, and only with a research component to monitor outcomes relative to other services. At this point, communities going forward with plans to implement MST should ensure that agencies are committed to adequate levels of clinical supervision and create teams large enough to absorb attrition and the learning curve for new therapists. Management responsibility should be vested with one organization rather than split between or among several. Agencies should be free to hire the most appropriate candidates as therapists and supervisors, individuals who are a good fit with the dictates of the MST approach. Supervisors have to be physically available to the team, empathic to their unique situations, provide strong clinical direction, have clear expectations, and be willing to act as a buffer and an advocate between the needs of therapists and agency expectations.

Recommendation 4: Agencies and others considering the adoption of MST should do so only in the context of a randomized study comparing MST to local services and using outcome measures that are meaningful to the communities and to funders.

A web site has been created to help Canadian communities learn more about MST.



www.amicusmst.org

Finally, in a randomized trial, many are averse to making referrals. The levels and type of youth serviced in some areas may have been affected as a result. Accordingly, some aspects of what we found may not be typical of MST under non-research conditions.

Where do we go From Here?

When I look back on all that [my son] went through a few years ago, there is one thing I am certain I would change. I would not abandon him to the "justice system" again. ... What I believe now is this: if parents, with the aid of support systems, can bring a troubled child to believe in a sense of responsibility to their community and vice versa, the benefit to everyone, including bean counters, will manifest itself. If a child enters the maze of the legal system, reaching them becomes much more difficult. The larger truth I learned was that it is never too late for a parent to gain the heart of their child.

This quotation is from a letter by a father, acknowledging the contribution of an MST therapist to the well-being of his son and family. The premise underlying this project is this: services for youth should address not only prevention and early intervention, but also the needs of youth who are already manifesting criminal behaviour. It is never too late.

Implementing multisystemic therapy is extremely challenging compared with traditional interventions, requiring a significant cost, and an enormous commitment on the part of families, therapists, supervisors, agencies, communities, and broader stakeholders. Ultimately, decisions about the next steps for MST in Canada will be made by communities, agencies and government funders. There are, however, aspects of this project that should not be lost amid the focus on MST. Perhaps the greatest contribution of this project is by demonstrating that experimental designs are feasible, that programs should be accountable for their outcomes, and that we need to find a better way to help serious young offenders. Even if funders believe these results do not warrant a continuation or expansion of MST, money has been well spent if we carry forward these three factors.

The Importance of Good Research

The methodology used here should become the standard of research in corrections in Canada because good research *is* feasible. Methodologies that suffer from lack of control, small samples, single indicators of outcome, short or no follow-ups, researcher bias, single site implementation and/or rely on pre and post testing to indicate effectiveness can lead to conclusions that are erroneous.¹³

The recently formed Campbell Collaboration maintains a data base with references to over 10,000 articles on randomized and "possibly randomized" trials in the fields of social work and welfare, education, and criminal justice.¹⁴ Their Crime and Justice Coordinating Group oversees the preparation of systematic reviews relevant to prevention, treatment or control of crime.¹⁵ A key assumption is that only scientifically rigorous studies should be included in meta-analyses and systematic reviews.

Indeed, experimental design is a strategy that will greatly advance our understanding of how to prevent and to intervene effectively with criminal behaviour.¹⁶ Such research may well be costly and time consuming, but the pay off is credible information to inform program planning, by identifying which of two or more interventions is more effective, or which of two interventions of equal effectiveness is more cost efficient. Research saves money in the long-run by identifying which interventions fail to meet expectations

so the search can continue.

Recommendation 5: To advance our understanding about relative program effectiveness and efficiency, to ensure the best programs are funded, and to reduce erroneous supposition about effectiveness, experimental field studies should be the norm in Canadian program evaluation

Attending to Program Integrity, Fidelity and Evaluation

This project also signals the arrival of a new program standard, one where programs are selected and continue to receive funding based upon sound empirical evidence of their efficacy with the target client group. Interventions must have high levels of program integrity, be closely supervised, treat only clients that are appropriate, devote continuous attention to *attaining* and *maintaining* program fidelity, have continuous *monitoring* of fidelity, have clear and measurable outcomes derived logically from program goals, and document those outcomes by measuring post-program behaviour. As in this case, evaluators are ideally to be independent of the program providers.

We put MST through a very stringent test, placing it under a microscope in a way that no other Canadian program has been. MST is the first such program and it should not be the last.

We put MST through a very stringent test, placing it under a microscope in a way previously unmatched in Canada. Programs that come packaged as “best practice” must be monitored for program drift and be tested for effectiveness in new settings, to verify that previous results will replicate. We hope this aspect of the MST project will serve as a model for others.

Recommendation 6: Programs in youth corrections should be selected for and evaluated against their ability to affect target behaviour relative to a basis of comparison such as another program.

Improving Interventions for Chronic Young Offenders

The results clearly show that our interventions are in need of improvement where this type of youth is concerned. So far, almost 80% have been convicted at least once in the three years after discharge.

How are the “recidivists” distinguished statistically? At various places in this report, it will be seen that conviction is not statistically associated with type of intervention, sex of youth, age, psychometric scores, or assessed level of risk. Only variables that describe the extent of pre-referral criminal record are correlated with post-discharge conviction. This was true of post-discharge conviction,¹⁷ number of offences of conviction during the follow-up,¹⁸ number of convictions for breach of disposition,¹⁹ number of convictions for other administrative offences,²⁰ number of convictions for non-administrative offences,²¹ total number of prosecutions,²² total days in sentenced custody and total days sentenced to secure custody.²³ Moreover, age at first conviction was negatively correlated with several measures of the extent of post-discharge convictions.²⁴ In other words, those who were convicted at a younger age tended to have more offences of conviction in the follow-up.

These findings suggest that the factors set into play to instigate or suppress the criminal behaviour associated with the first conviction, whatever those factors happen to be, were not interrupted by the interventions. Youths with no prior record tended not to be convicted. Youths with lengthy prior records tended to be convicted of many offences. Youths with small prior records fell in between.

Among this group of 409, the average number of offences in their “careers” so far is 4.3, or 1,741 in total. They have been prosecuted (and found guilty of at least one offence) an average of 2.5 times. Excluding the 18% who have never had a criminal conviction to this point, the average number of career convictions is 5.2 and the average number of prosecutions is 3.0. Current efforts, which focus on custody, are probably not meeting public expectations. The more time youths had spent in custody prior to referral, the more offences of conviction they had in the follow-up.

If concerns of community safety do not prompt changes, perhaps a concern for the bottom line will. Taxpayers are spending a lot of money to incarcerate these youth, almost \$6 million in custody costs so far since the follow-up began (excluding detention and any custody stays before referral or during the intervention itself). This is an astonishing figure when considering that the 380 youth have collectively been convicted so far of fewer than 400 offences involving victims. Imagine the costs associated with police investigation and processing of criminal cases, pre-trial detention, prosecution and court costs, legal aid, probation and non-custodial correctional interventions, and adult incarceration. Add to that the losses experienced by crime victims and insurance companies, and the costs that will accrue as the follow-up continues, and it is plain to see that even a small group of young offenders can have an enormous fiscal impact.

If one estimates that direct costs of police, court and correctional processing are approximately \$25,000 per offence, justice-related costs alone for this sample could well exceed \$43 million so far. This would be a conservative estimate and the true figure is probably higher. And this number will rise as the follow-up continues. It is worth spending some time and money to learn more about them and how to intervene effectively.

Even a small group of chronic young offenders can cost society millions of dollars in costs associated with investigating, processing and punishing criminal behaviour. It is likely that the 409 youth in this sample has already cost the justice system over \$43 million.

Next Steps

David P. Farrington has produced an excellent summary of what we know about crime prevention and how that knowledge should inform intervention strategies.²⁵ Crime is a complex problem and there are no quick fixes or panaceas. Recommended strategies include a spectrum of initiatives that address youth and families at various stages in their lives and in different settings. Each community should be able to provide:

- parent education programs including pre and post-natal home visits and parent management training
- pre-school programmes as a head start for disadvantaged or at risk toddlers
- school-based programs that involve parents as well as teachers
- anti-bullying programs in schools

A promising strategy now being evaluated in the United States and the United Kingdom, the “Communities that Care” approach combines all of these components.²⁶ Pre-packaged materials are available to help communities conduct needs assessments and a review of local risk and protective factors. In this way, the process is tailored to local needs and necessarily involves a broad range of community members. This approach has been implemented in many American jurisdictions with the assistance of the Office of Juvenile Justice and Delinquency Prevention because it is a core component of the *Comprehensive Strategy for Serious, Violent and Chronic Juvenile Offenders*.²⁷ A randomized trial is scheduled to begin in 2003. Many Canadian observers will be watching this process with interest.



www.communitiesthatcare.org.uk

For youth already identified as offenders, skills training using a cognitive-behavioural approach is the most highly recommended approach. This strategy will be most effective when linked to educational and vocational programs that assist young people to integrate into the adult world and meet their own financial needs.

Already in this follow-up, 20 youth (5%) have been prosecuted four or more times since discharge, and 105 (26%) have at least four prosecutions over their lifetime, classifying them as chronic young offenders.

What about the chronic offenders? Do we just throw away the key? In the American *Comprehensive Strategy for Serious, Violent and Chronic Juvenile Offenders*, one of the six general principles is to identify and control the small segment of serious juvenile offenders who repeatedly victimize the community and who account for the vast majority of serious and violent delinquent acts.²⁸ As one example, in Orange County, California, 8% of youthful offenders accounted for 55% of repeat offenders. These chronic recidivists returned four or more times during the three-year study, also called “recycling,” because the same youths come back repeatedly. They turned the 8% problem into the 8% solution.²⁹ Adopting this approach, which begins with an analysis of the characteristics of chronic young offenders in the jurisdiction, a local solution can be crafted to match the characteristics of the group.



www.oc.ca.gov/probation (Probation Department, Orange County)

<http://ojjdp.ncjrs.org/strategy/index.html> (U.S. Comprehensive Strategy)

Recommendation 7: In Canada, we should continue to seek ways of intervening effectively with chronic young offenders by identifying, at the local level, the characteristics of chronic offenders and by devising a spectrum of strategies tailored to the community.

Summary and Conclusions

MST is an intensive, home-based intervention for serious young offenders. At agencies in four Ontario communities, teams of therapists were trained in the provision of MST and 409 families assisted with the project. All the youths were referred because of concerns their criminal behaviour would continue in the absence of an effective intervention. Research from two American studies suggested that MST might be an effective way of reducing criminal behaviour relative to the services already available. While the effectiveness of MST was not demonstrated here, neither arguably was the effectiveness of the usual services, with a conviction rate of 80% after three years.

If one lesson has been learned, it is that we must push forward with the search for effective interventions for youth who manifest serious or chronic criminal behaviour. These results should not be interpreted to mean current practice is adequate. It is worth spending some time and money to learn more about this group and how to intervene effectively because taxpayers are spending a great deal of money with little evidence of enhanced public safety. We also have learned that randomized designs are feasible and helpful and should become the norm in correctional research.

Endnotes

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4. Washington State Institute for Public Policy (1998). *Watching the Bottom Line: Cost Effective Interventions for Reducing Crime in Washington*. Olympia WA: WSIPP, The Evergreen State College, at 2.
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7. A.J. Cunningham (1998). North of the 49th Parallel: The Criminal Justice System of Canada. *Criminal Justice* [American Bar Association], 13(2):21-27.
8. More than one third (36%) had spent all or some of the previous year supported by welfare benefits, with substantial variation among the sites. Almost one quarter of families (23%) had experienced unemployment in the previous year and 19% lived in subsidized housing. There was a high rate of lone-parent households (47%), as in the American MST studies. Among the primary caregivers, 37% had not completed high school. See Tables C.16 and C.17 in Appendix C.
9. NNT = Number Needed to Treat, a statistic described in the next chapter. Briefly, it means the number of youth who must be treated with a new intervention to prevent an adverse outcome (e.g., conviction) in a group of youth treated with the conventional intervention.
10. GA. Bernfeld, D.P. Farrington & A.W. Leschied (eds.), *Offender Rehabilitation in Practice: Implementing and Evaluating Effective Programs*. Chichester UK: John Wiley & Sons Ltd.
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13. Cunningham (2002), supra note 1.
14. See <http://campbell.gse.upenn.edu> and A. Petrosino, R.F. Boruch, H. Soydan, L. Duggan & J. Sanchez-Meca (2001). Meeting the Challenges of Evidence-based Policy: The Campbell Collaboration. *Annals of the American Academy of Political & Social Sciences*, 578: 14-34.
15. See www.aic.gov.au/campbellcj/ and D.P. Farrington (2001). The Campbell Collaboration Crime and Justice Group. *Annals of the American Academy of Political & Social Sciences*, 578: 35-49.

16. D.P. Farrington (1999). A Criminological Research Agenda for the Next Millennium. *International Journal of Offender Therapy & Comparative Criminology*. 43(2): 154-67.
17. Eliminating youth under 12 from the analysis, because they are too young for prosecution, youth with a record of convictions at referral were significantly more likely to be convicted in the follow-up, whether the definition of "conviction" was for any offence ($P^2 = 11.3$, $df = 1$, $p < .001$), or excluded administrative offences ($P^2 = 10.1$, $df = 1$, $p < .001$). Looked at another way, 39% of those without a prior record at referral were convicted at least once in the follow-up compared with 59% of those with convictions. This trend was observed in both the MST group ($P^2 = 5.6$, $df = 1$, $p < .009$; $P^2 = 5.5$, $df = 1$, $p < .009$) and the usual services group ($P^2 = 4.9$, $df = 1$, $p < .013$; $P^2 = 3.9$, $df = 1$, $p < .023$). This pattern was also true for being sentenced to custody: entire sample ($P^2 = 16.4$, $df = 1$, $p < .001$), MST group ($P^2 = 9.8$, $df = 1$, $p < .001$); and usual services group ($P^2 = 6.1$, $df = 1$, $p < .006$).
18. Number of offences in follow-up is correlated with number of offences in pre-referral record ($r = .25$, $p < .001$) and total days in sentenced custody before referral ($r = .258$, $p < .001$). In other words, the more days spent in custody before referral to MST, the more offences they committed in the follow-up period.
19. Correlated with total offences in prior record ($r = .185$, $p < .001$) and pre-referral custody days ($r = .142$, $p < .023$).
20. Correlated with days in custody pre-referral ($r = .158$, $p < .012$).
21. Correlated with total offences in prior record ($r = .242$, $p < .001$) and days in custody pre-referral ($r = .256$, $p < .001$).
22. Correlated with total offences in prior record ($r = .246$, $p < .001$) and days in custody pre-referral ($r = .214$, $p < .001$).
23. Correlated with total offences in prior record ($r = .358$, $p < .001$) and days in custody pre-referral ($r = .304$, $p < .001$).
24. Specifically, number of offences of conviction in follow up ($r = -.173$, $p < .005$), number of non-administrative offences ($r = -.175$, $p < .005$, number of non-breach administrative offences ($r = -.125$, $p < .045$), number of prosecution episodes ($r = -.203$, $p < .001$), and total days in sentenced custody ($r = -.178$, $p < .004$), and days sentenced to secure custody ($r = -.183$, $p < .003$).
25. D.P. Farrington (in press). Developmental Criminology and Risk-Focussed Prevention. In M. Maguire, R. Morgan and R. Reimer (eds.), *The Oxford Handbook of Criminology, 3rd Edition*. Oxford: Clarendon Press.
26. J.D. Hawkins & R.F. Catalano (1992). *Communities that Care*. San Francisco CA: Jossey-Bass.
27. J.J. Wilson & J.C. Howell (1993). *A Comprehensive Strategy for Serious, Violent and Chronic Juvenile Offenders*. Washington DC: Office of Juvenile Justice and Delinquency Prevention.
28. The other five are to strengthen families, support core social institutions, promote prevention strategies, intervene immediately and constructively, and establish a system of graduated sanctions.
29. M. Schumacher & G.A. Kurz (1999). *The 8% Solution: Preventing Serious, Repeat Juvenile Crime*. Thousand Oaks: Sage; and, Office for Juvenile Justice and Delinquency Prevention (2001). *OJJDP Fact Sheet: The 8% Solution*. Washington DC: U.S. Department of Justice.

