

# Drug use prevention



Overview of research



**NACD**

National Advisory  
Committee on Drugs

Dublin

Published by the Stationery Office.

To be purchased directly from the  
Government Publications Sales Office,  
Sun Alliance House, Molesworth Street, Dublin 2,  
or by mail order from  
Government Publications, Postal Trade Section,  
4 - 5 Harcourt Road, Dublin 2,  
(Tel: 01-6476834/35/36/37; Fax: 01-4752760)  
or through any bookseller.

Pn. 10754

ISBN 0 7557 1185 8

£5

€6.35

Baile Átha Cliath

Arna Fhoilsiú ag Oifig an tSoláthair

Le ceannach díreach ón

Oifig Dhíolta Foilseachán Rialtais,

Teach Sun Alliance, Sráid Theach Laighean, Baile Átha Cliath 2,  
nó tríd an bpost ó

Foilseacháin Rialtais an Rannóg Post-Tráchta,

4 - 5 Bóthar Fhaearchair, Baile Átha Cliath 2,

(Teil: 01-6476834/35/36/37; Fax 01-4752760)

nó trí aon díoltóir leabhar.

© Government of Ireland 2001

Designed by Corporate Graphics



# Drug Use Prevention

*An Overview of Research*

**Dr Mark Morgan,**

St. Patrick's College

November, 2001

# Minister of State's Foreword

This is the first Report to be published by the National Advisory Committee on Drugs which was established in 2000. The role of the Committee is to advise the Government in relation to the prevalence, prevention, treatment and consequences of problem drug use and I am delighted that the Committee's first Report looks at the important area of prevention and the effectiveness of various programmes and initiatives that have been undertaken.

We are all too aware of the havoc that drug misuse continues to wreak on the lives of individuals, families and communities. As the Report points out there is no single drug problem - instead there are a variety of different problems each of which requires a somewhat different approach. The Report also found that problem drug use is particularly likely where other factors involving social and educational disadvantage and deprivation are involved.

The new National Drugs Strategy 2001 - 2008, which was launched by the Government in May 2001, is built around the four pillars of supply reduction, prevention, treatment and research. A number of the 100 actions in the Strategy relate to the area of prevention and this Report is, therefore, both timely and thought-provoking as we start to implement these actions.

I want to congratulate the National Advisory Committee on Drugs and Dr Mark Morgan, the author of this valuable Report which I believe will be very useful and informative for all those people - professionals, policymakers and others - who work in this area.



**Eoin Ryan T.D.**

Minister of State with special responsibility for the National Drugs Strategy

# Foreword

This Report on prevention is the first report from the NACD and reflects the importance of prevention for the community as a whole and within the prioritised work programme agreed for the NACD by the Cabinet Committee on Social Inclusion.

I would like to commend Dr Mark Morgan for his detailed and insightful report and thank him and my other colleagues on the Prevention Sub Committee for their detailed input to the document. Great praise is due to the staff of the committee for their herculean efforts to ensure the timely presentation of this Report to the Minister of State with responsibility for the National Drug Strategy and its subsequent general publication.

This Report has implications for all involved in the prevention of: experimental drug use; of more frequent drug use and of problematic drug use. This, as is clearly pointed out in the content, concerns the whole community, not just schools and certain Government Departments. It is important that we learn lessons from the Report's conclusions that prevention efforts need to be targeted; all embracing in their delivery e.g. schools, families, communities; age appropriate and devoid of scare tactics. There is a need to remind ourselves that drug prevention is not like immunisation - a single 'dose' does not protect for life. Preventive efforts need to be renewed and individual protective factors reinforced several times during an individual's life.

It is the hope of the National Advisory Committee on Drugs that this Report will provide an informed basis for further development of the excellent programmes and resources already developed within. We also believe that the new research to be commissioned arising from the recommendations of this Report will further contribute to a strengthening of the effectiveness of the various strands of our individual, family and community efforts to reduce the number of those experimenting with drugs thereby reducing the number of regular users and most importantly of all reducing the number of problem drug users in Irish society.



**Dr Desmond Corrigan F.P.S.I.**

Chairperson, NACD.



**Ms Ruby Morrow**

Chairperson, Prevention Sub-Committee, NACD.

# Acknowledgements

The author wishes to acknowledge the support and assistance of the NACD Prevention Sub Committee and the co-operation of the wider NACD committee in finalising and publishing this report. Information on the NACD is available on the website [www.nacd.ie](http://www.nacd.ie). A special word of thanks to Joel W. Grube for his assistance now and over the years.

# Contents

<b>Executive Summary</b>	<b>7</b>
<b>chapter 1: The Context of Drug Prevention Research in Ireland and abroad: Prevalence, Policy and Interventions</b>	<b>9</b>
<i>Prevalence of Illegal Substance Use in Ireland</i>	10
<i>Public Concerns</i>	10
<i>Development of Policies and Activities in Prevention</i>	11
<i>Prevention in recent Government Policy</i>	13
<i>Concepts of Prevention</i>	13
<i>Other Interventions: Preventing Cigarette Smoking</i>	14
<i>Outline of Report</i>	15
<b>chapter 2: Risk Factors for Drug Use</b>	<b>17</b>
<i>Commitment and Social Attachment</i>	18
<i>Problem Behaviour Theory</i>	19
<i>Social Cognitive Learning Theory</i>	20
<i>Family Interaction Theory</i>	21
<i>Self-derogation and substance use</i>	21
<i>Biological models of vulnerability</i>	22
<i>Communal Risk Factors</i>	22
<i>Conclusions</i>	23
<b>chapter 3: Approaches and Interventions for Preventing Drug Use among young people</b>	<b>25</b>
<i>Classification of Intervention Programmes</i>	26
<i>School-Based Programmes</i>	26
<i>Knowledge and Information</i>	27
<i>Effects of Fearful Messages</i>	28
<i>General Self-Esteem and Values Clarification</i>	29
<i>Social Influence Programmes</i>	29
<i>Comparison of Approaches</i>	32
<i>School Policies</i>	33
<i>The EDDRA data base</i>	34
<i>Comment on Effectiveness of School Prevention Activities</i>	36
<i>Community Approaches to Prevention</i>	37
<i>Mass Media Campaigns</i>	37
<i>Health Warning Labels</i>	38

	<i>Family Interventions</i>	38
	<i>Large Scale Community Programmes</i>	39
	<i>Conclusions on 'Top-down' Community Initiatives</i>	41
	<i>'Bottom-up' Approaches</i>	41
<b>chapter 4:</b>	<b>Some Reasons why Programmes are Ineffective</b>	<b>45</b>
	<i>Unrealistic Expectations</i>	46
	<i>Programme Implementation</i>	47
	<i>Problems of Implementation</i>	48
	<i>The Future of Implementation</i>	49
	<i>Environmental and Cultural Factors</i>	49
<b>chapter 5:</b>	<b>Targeted Programmes for Problem Drug Use</b>	<b>51</b>
	<i>Problem Drug Use</i>	52
	<i>Profile of People in Treatment and Garda Studies of Drug Users</i>	53
	<i>Family Influences and High-Risk</i>	54
	<i>Interventions</i>	54
	<i>Family Support Services: Irish Research</i>	55
	<i>Family Support Services: International Research</i>	55
	<i>Programmes of Local Drugs Task Forces in Ireland</i>	56
	<i>Effective vs. Ineffective Programmes</i>	58
	<i>Supply Reduction</i>	59
<b>chapter 6:</b>	<b>Conclusions and Recommendations</b>	<b>61</b>
	<i>Context</i>	62
<b>Appendix:</b>	<b>NACD Membership</b>	<b>68</b>
<b>References</b>		<b>70</b>



# Executive Summary

This report summarises the main findings of research in Ireland and abroad relating to drug use prevention. The main risk factors for drug use are identified and several approaches and strategies for preventing use and misuse are examined. Based on the evidence presented here, a number of conclusions and recommendations are put forward.

The main conclusion is that there is no single 'drug problem' with one dramatic solution. Rather, what is called the drug problem is comprised of varying degrees of involvement with a variety of substances, arising from several influences many of which are unrelated to each other. For these reasons, the main recommendation is that there is a need to target and prevent use of the most dangerous substances.

The most serious drug problems involve opiates and are largely associated with deprivation. Addressing this problem requires a comprehensive approach involving not only family and community factors but also broad socio-political influences, especially educational opportunities. Targeted initiatives to tackle the social origins of these drug problems should involve inter-agency co-operation and have community involvement. Particular attention should be given to the structural planning of inter-agency co-operation on a scale and intensity that is commensurate with the gravity of the problem. There is also a need to continue with supply reduction measures particularly as these have an important influence on the perception of what is acceptable. Furthermore, there is a need to include legal drugs as part of the policy since experience has shown that an exclusive focus on illegal drugs has limited effectiveness.

There is a need to raise public awareness of the importance of deprivation as a predisposing factor for the most damaging forms of drug misuse. This will act as a prelude to widespread acceptance of the necessity for the major resources that will be needed to deal with these problems. In this context, there is a major need to help vulnerable families in order to prevent their children's drug misuse. It is also essential that prevention of early school leaving should be at the core of intervention. Attention should also be given to how life and employment skills can contribute. It is also recommended that drug prevention becomes a central feature of initiatives to address Health Inequalities in the context of the National Anti-Poverty Strategy as well as integrating programmes that attempt to address social exclusion, especially those that focus on school (Breaking the Cycle) and on families (Springboard).

Notwithstanding the targeted programmes to deal with the causes of the most damaging forms of drug misuse, there is also a need for broadly based programmes focusing on the experimental drug use that is not uncommon among young people from all social backgrounds. The evidence reviewed here shows that fear based messages are not appropriate in programmes including classroom programmes. While it seems plausible to have experts warn young people about the 'real facts' of the dangers of drug use, the indications are that this is quite ineffective in preventing subsequent experimentation.

Instead there should be a continued investment in approaches that emphasise personal and social development, stress social skills and enhance decision-making. In particular, school programmes should

ensure that children are actively involved rather than merely passive recipients of information. It should be noted that many of the Irish school based programmes to address drug misuse have been consistent with best practice in this regard. The developments in Social Personal and Health Education are especially to be welcomed.

There is considerable evidence that school programmes on their own are unlikely to have a major impact without community backing. There is a need to take into account the views of parents and other interested parties as well as having innovative strategies to reach marginalised young people who may have left school. Drug prevention should take place in community settings such as youth clubs, community centres, sports clubs and in workplaces where additional skills and knowledge are needed. Within school programmes, the regular classroom teacher should take the primary role in drug prevention education, with appropriate input from others including professionals as well as people from the local community with relevant expertise. Schools need to develop policies with regard to drug prevention. Such policies should include not only illegal drugs but also legal drugs and may be most effective if they involve groups of schools and are holistic in nature, rather than simply indicating sanctions for drug use.

The evidence reviewed in this report suggests that the mass media have until now, had a relatively limited role in prevention. It would seem that there is very little value in drawing attention to the dangers of drug use in media promotions since, they may only convince those people who are already disposed to believe the message. Furthermore, they can create an impression that 'something is happening' in relation to prevention. There is a need to explore new ways of using the mass media more effectively, in the context of the statement of the National Drugs Strategy.

# chapter 1:

The Context of Drug Prevention Research in Ireland  
and Abroad: Prevalence, Policy and Interventions

# chapter 1:

## The Context of Drug Prevention Research in Ireland and Abroad: Prevalence, Policy and Interventions

This chapter sets the context for describing the body of research that has been conducted in the field of drug prevention. Firstly, the major findings on prevalence of use in Ireland are summarised with a particular focus on patterns of use among young people, together with information on the perception of drug problems among the general public. Secondly, the policy framework for prevention is set out looking particularly at how policy has evolved over the years, culminating in the recently published National Drugs Strategy (2001). Thirdly, some features of related relevant interventions are examined with particular reference to prevention of cigarette smoking. Finally, the layout of this report is outlined.

### Prevalence of Illegal Substance Use in Ireland

Whatever indicator is used, there is little doubt that the prevalence of experimental substance use in Ireland has increased over the last two decades. The indications are that among young people (aged 16 – 25 years), about one third have tried cannabis at some time in their lives (Bryan et al., 2000, Hibell et al., 2001). It would also seem to be the case that compared to other countries, the level of substance use in general is higher among young people in Ireland than elsewhere (Brinkley et al., 1999).

However, there are some hopeful signs that a certain levelling off may have occurred. The ESPAD study (Hibell et al., 2001) showed over the last four years that there is a fall in the percentage of 16 year olds who have ever tried an illicit substance from 37% to 32%. There are a number of features of this that are particularly interesting. Firstly, almost exactly the same drop was evident in the UK, whereas in most European countries there were increases – but with most of them being still below Ireland and the UK. It is also noteworthy that the figures for cannabis are exactly the same as for ‘any illegal drug’ indicating if someone had tried an illegal substance, she/he would have tried cannabis.

However, the number of people affected by ‘problem’ drug use is a major cause of concern. The related publication (Cox, 2001), which focuses on the use of opiate and non-opiate users concludes that there are significant difficulties in estimating the prevalence of problem drug use and that a variety of methods should be applied. However, regardless of which method of estimation is used, the available estimates suggest the prevalence of opiate drug use and injecting drug use continues to present a problem.

### Public Concerns

There is also evidence of a widespread concern by the general public regarding drug use. A survey on drug related knowledge and attitudes among the general public (Bryan et al., 2000), revealed a number of interesting points. Firstly, there is a widespread fear of the dangers of drug use among the general public coupled with a belief that all illegal drugs are equally harmful. Secondly, there is a perception that drug

taking is common among young people and a concern about the dangers to society that this brings about. Thirdly, there is a high level of avoidance and a fear of drug users among the general population, although people with personal knowledge tend to be less negative in their attitudes. Interestingly, this concern about drugs was also evident in a study of the priorities that Gardaí were urged to have by the general public (ESRI, 1997). This showed that 'enforcement of the laws on drugs' was rated as the top priority ahead of investigations of any other form of crime/social problem.

## Development of Policies and Activities in Prevention

Since concern about drugs has at least in recent times, generated such a high level of public concern, it is to be expected that drugs related policy would have undergone major changes and adaptations over the last twenty years, as concerns about the topic grew (Butler, 1991; Loughran, 1999). The early eighties, which witnessed a rapid increase in opiate use in the inner city areas of Dublin, were characterised by a poorly prepared official response. The late eighties saw some of the first serious efforts to deal with intravenous drug use largely as a result of the public health issues associated with HIV infection.

In some respects the early nineties saw a number of changes in policy, which have influenced the more recent responses to the drug problem. Until that time, great reliance was placed on tackling the supply of drugs and controlling individuals' demands for drugs through criminalisation. More recent efforts have seen a three-pronged approach involving legislation for criminal justice measures to curb supply, community measures to reduce demand as well as harm reduction measures at the individual level (Ruddle, Prizeman & Jaffro, 2001). In particular, partnership between communities and collaboration with state agencies is central to more recent policy developments. A detailed account of how current structures developed is to be found in the recent publication by Moran & Pike (2001).

Primary prevention activities have formed a central part of demand reduction activities of the last decade. These activities have been organised on national, regional and local levels. At the national level, the *On My Own Two Feet Programme* in post-primary schools and the *Walk Tall Programme* in primary schools have been implemented in a large number of schools throughout the country. These programmes will now be assimilated into the new Social, Personal and Health Education Programme which is aimed at providing a comprehensive set of prevention activities including prevention of drug use and misuse. (Department of Education and Science, 1999)

At the regional level, several of the Health Boards have organised a range of prevention activities which include the appointment of education officers to liaise with schools and relevant agencies<sup>1</sup>. Also relevant at local level are the prevention activities of the Local Drugs Task Forces (LDTFs). Interestingly, the evaluation of the planning and implementation of the Task Force projects suggests that over half of these fall into the area of 'Education and Prevention' (Ruddle, Prizeman & Jaffro, 2001).

<sup>1</sup> *The National Drugs Strategy (2001) proposes setting up a Regional Drugs Task Force in each health board area incorporating and expanding the existing regional co-ordination committees.*

Complementary to the LDTFs is the Young Peoples' Facilities and Services Fund which aims among other things to engage young people constructively in sport and recreation and to divert them from involvement in drugs and unhealthy life choices. Among the projects and initiatives supported are community-based education/prevention programmes and a variety of other activities (Moran and Pike, 2001).

Because the *Walk Tall* and *On My Own Two Feet* programmes are the only programmes that are implemented on a national basis, some features of these particular programmes and their implementation are worthy of comment. Firstly, these programmes (which have been developed by the Departments of Education & Science and of Health and Children) have drawn on the expertise that has been developed in this area particularly in the Psychological Service of the Department of Education & Science. There are also links with Local Drugs Task Forces. Secondly, a particular emphasis is placed on teacher training with teachers being seconded to train their colleagues. The in-service components at primary level include daylong staff seminars and training programmes up to 10 weeks long for participating teachers. Thirdly, the philosophy of the programmes is broadly based and includes social skills, decision-making and self-esteem modules as well as information on substances, which is presented in context. A major effort is made to avoid scaring children. With this in mind the information presented is age-appropriate. Related to this a particular emphasis is on methodology that is appropriate for affective and behaviour-related objectives. Thus, the involvement of children in activities such Circle Time as well as Art and Creative Writing is an important feature of the programmes (Morgan, 1998).

The indications are that the *Walk Tall* and *On My Own Two Feet* programmes are perceived extremely positively by those teachers who implement them in their classrooms and indeed by the participating children (Morgan, in preparation). There is also evidence that the programmes are being adopted by a great many but by no means all schools in the country. One finding that emerges consistently is that teachers are favourably disposed to these programmes and regard them as educationally sound but have major difficulties in finding the time to implement them. It is unfortunate that these particular programmes were begun at a time of such curricular change, which has seen major additions to the curriculum. A particular concern was that the Relationships and Sexuality programme was launched as the prevention programmes were becoming established. It remains to be seen whether the policy of integrating these various strands within Social, Personal and Health Education (SPHE) will result in greater attention to the whole area as is hoped.

It is, therefore, important to establish exactly what kinds of prevention activities are being implemented in schools currently. This ties in with the recent concerns of the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA), which is giving particular attention to the level of implementation of programmes. This issue will be revisited in a later chapter and in the conclusions and recommendations.

## Prevention in recent Government Policy

Prevention is a central feature of Government policy along with supply reduction and treatment (National Drug Strategy, 2001). A number of features of this recent policy statement are worth referring to. Firstly, it recognises the extent to which drug prevention is related to the need to deal with other social and educational problems. Thus, it proposes to link 'drug specific interventions with interventions in related areas such as youth crime prevention and mental health promotion strategies, employment, education and training initiatives' (6.3.1). Secondly, it gives particular attention to family and community factors by 'fostering positive stable relationships with family or key community figures ...thereby enhancing their sense of belonging to family, social group or locality' (6.3.1). Thirdly, in the context of the discussion of the heroin problem, it recognises the limitations of our current understanding but notes the '...particularly strong correlation between early school leaving and drug misuse' (6.3.2). Fourthly, it notes the value of seeking to increase the understanding among the general public of the factors involved in drug misuse and regarding effective interventions to reduce harm. Finally, specifically with regard to prevention programmes, the document recognises that young people do not take kindly to a simplistic 'don't take drugs' message (6.3.6). Interestingly, in discussing drugs policy it also makes the point that as regards school policies, the 'ultimate sanction of expulsion can have the effect of alienating a student from mainstream sources of help and may result in the student becoming more involved in drug misuse' (6.3.8).

The strategy proposes a number of key performance indicators for the attainment of the prevention objectives among which is a very specific measure focusing directly on use by young people. It proposes to 'bring misuse by school goes to below the EU average and as a first step, reduce the level of substance misuse, reported to ESPAD by school goes by 15% by 2003 and 25% by 2007" (based on ESPAD levels as reported in 2001, Hibell et al., 2001).

## Concepts of Prevention

An important matter that has plagued the research in this area concerns the definition of prevention and the distinction between different kinds of prevention. In an effort to see what consensus exists in this area, Uhl (1998) used the Delphi method with a group of 20 European scholars working in the field of prevention to see what consensus exists with regard to the concept of prevention and equally importantly to the goals of prevention work.<sup>2</sup>

Uhl's work led to the conclusion that four areas of preventive actions can be differentiated:

- primary prevention is to prevent the onset of a substance related problem,
- secondary prevention is to intervene if a problem is likely to occur (prevention in high risk groups) or if a problem exists but is not yet fully manifested,

<sup>2</sup> The aim of the Delphi approach is to achieve consensus among experts on complex topics thereby circumventing 'destructive' elements of group discussion. It involves a multi-stage iterative process until a consensus is reached or it turns out consensus is not possible.

- tertiary prevention (Type A) involves dealing with problems once they are fully manifested (prevention of further harm in those addicted),
- tertiary prevention (Type B) involves prevention of further problems recurring once they have been successfully treated (relapse prevention).

As is clear from Uhl's work, the acceptance of these distinctions does not solve all definitional problems, particularly, what constitutes a 'substance related problem'. Nevertheless it does provide a broad context within which the work described here can be located. The main thrust of the research addressed here will be to do with either primary or secondary prevention. Specifically, chapter 3 will examine studies that are largely in the area of primary prevention while chapter 5 features studies that would normally be regarded as in the domain of secondary prevention.

### Other Interventions: Preventing Cigarette Smoking

Given that this review focused on illegal substances and to a lesser extent alcohol, it is instructive to look at the outcomes of prevention programmes in an area where arguably, the results have been most successful, viz prevention of cigarette smoking. An early review of anti-smoking programmes by Best et al. (1989) covered 25 published studies of which about two-thirds indicated positive results. It is also worth noting that the nature of the positive results varied greatly from study to study. In some cases, there were significant differences between the experimental (programme) group and the comparison group. Others present evidence that the prevalence of current smoking is lower by a specific percentage than was the case for the control group. Still others have shown that the programme in question may have delayed the onset of smoking for a particular length of time.

A meta-analysis of the relative effectiveness of various kinds of programmes is of particular interest (Bruvold, 1993). This was comprised of 94 anti-smoking interventions and studies with weak research designs were omitted. The results showed that the effects on smoking behaviour were greater with programmes which had a social skills orientation (see chapter 3) and lowest for interventions with a knowledge orientation. Interestingly, all kinds of programmes were equally effective in enhancing knowledge about cigarettes.

However, it is also evident in recent times that schools can only play a limited part on the prevention of cigarette smoking. In addition to the findings from the ESPAD study that smoking uptake in all of the Northern European countries is high, there are factors that make it difficult for the school approach to be effective. A recent publication by Charlton (2000) admits that smoking interventions in school have not been 'as effective as we had hoped' (p. 24). Among the factors she identifies in this failure are rejection of school values by some children, the difficulty of meeting the demand of specific target groups in a general classroom context, and the fact that warnings of risk can make smoking even more attractive. Thus, even in the case of smoking, it is clear that school programmes can only be a part of a broad and holistic national strategy.



## Outline of Report

This report is in six chapters. Following this introduction, chapter 2 examines the factors associated with substance use and particularly the various efforts that have been made to link these factors together. chapter 3 looks at the evidence of the effectiveness of various prevention programmes that are aimed at the general population in school and other settings. Some reasons why these 'universal' programmes are not as effective as was hoped are examined in chapter 4. The effectiveness of targeted programmes is the focus of chapter 5 while the final chapter sets out the main conclusions and recommendations.

For a variety of reasons (including space, availability of evaluations), not all areas relevant to prevention are examined. The relatively greater emphasis on schools, homes, communities and the media reflects something about the volume of activity in these areas without any claim that these produce the most important results. Thus, prevention efforts in work settings are not examined in this review. Neither are prevention activities related to recreational drugs in clubs and similar locations, despite the evidence of the importance of these (Calafat et al, 2001).

The literature examined here also reflects the questions that have been examined in the research literature. By their nature some questions are relatively easier to answer than are others. The effectiveness of school programmes is, at least in theory, easy to evaluate while macro level policies, for example, are much more difficult to assess and require a time-scale and methodology that is sometimes less convincing than the strictly empirical research methodology that is often applied in examining interventions.



# chapter 2:

## Risk Factors for Drug Use

# chapter 2:

## Risk Factors for Drug Use

The relationship between the identification of risk and prevention is important. If risk factors could be identified which helped to pinpoint the causes of drug use, then they could help suggest the most appropriate forms of intervention. Certainly, there is no lack of good ideas regarding such factors. More than 20 years ago, a review identified no less than 43 theories of substance use which taken together identified a range of important constructs (Lettieri, Sayers & Pearson, 1980). This illustrates that almost every paper identifying risk factors contains either an implicit or explicit theory of why the behaviour occurs.

The problem is that there is a lack of organisation and integration among the current risk factors (and indeed theories) of substance use. Part of the reason for this is the different traditions and disciplines in which the research is carried out. For example, the kinds of risk factors identified by sociologists (e.g. Elliott et al, 1985) have different kinds of factors than those identified by social psychologists (Grube & Morgan, 1990). In turn, those psychologists emphasising personality factors have come up with different models from developmental psychologists (Brook, Whiteman & Gordon, 1983). Similarly, work from a biological tradition emphasises other factors again (Sher, 1991).

A critical and frequently unanswered question in the literature is: Risk factor for what kind of use? While there are major disagreements about 'stages' of use, many would agree that it is worthwhile at least to distinguish between 'experimental use' and 'problem use'. Others distinguish between (i) experimental/recreational use, (ii) harmful non-addicted use and (iii) addicted use (Uhl, 1998). Still others draw no distinctions but consider use as a continuum. Many of the models considered here focus on all of these 'stages'. As far as possible the present chapter will attempt to be as comprehensive as possible taking into account all kinds of use while chapter 5 will focus particularly on problem use.

The risk factors considered below are organised around a number of explanatory models of substance use. In selecting these frameworks, particular attention was given to the following: (i) an effort was made to link multiple constructs as opposed to single constructs, (ii) the framework has generated substantial research support and (iii) an attempt has been made to deal with distal as well as proximal factors.

### **Commitment and Social Attachment**

Some models of substance use have identified weak bonds with institutions and society as being a major factor in substance use (Elliott et al, 1985). This view is partly based on classic sociological theories of control which suggest that deviant impulses are often held in check by strong bonds to conventional society, families, schools and religion. However, for some, such controlling influences are missing with the result that the young person does not feel compelled to adhere to conventional standards of behaviour.

The support for this view is found in research that demonstrates that drug use is more common among young people who are socially non-conforming and are alienated or rebellious (e.g. Shedler & Block, 1990). There is also evidence that drug use is more common among young people who feel detached from their families, school and religions (Grube & Morgan, 1986) and among those who are involved with deviant peers (Elliott et al. 1985).

Some work has focused on the causes of such weak commitment to society and the weak commitment to conventional role models. Two particular causes have been given special attention. The first of these is strain theory, which is defined as a discrepancy between adolescents' aspirations and their perceptions of the opportunities to achieve these aspirations. For example, if adolescents feel that their academic or career aspirations are being frustrated by their educational/occupational options, they will feel uncommitted to conventional society and in turn will become involved with deviant peers who in turn will encourage substance use. In support of this, it has been found that substance use is more common in adolescents with poor school records (Bailey & Hubbard, 1990) and among those who feel rejected by parents or who wanted closer relationships with their families (Elliott et al., 1985).

A second cause is social disorganisation, which is concerned with the breakdown of established institutions or the inability of these to control behaviour. This might be expected to result in adolescents feeling uncommitted to unconventional society if they come from disorganised neighbourhoods where crime and unemployment are common, where schools are ineffective, and where failed social institutions offer adolescents little hope for the future.

It is noteworthy that the versions of social control theory place little emphasis on beliefs regarding the substances involved. In fact, there is considerable evidence that beliefs about the effects of various substances play an important part in young people's decision to use a particular substance. The second important omission had to do with individual differences. Many personality traits and characteristics have been shown to have powerful influences on substance use.

Social control theory has linked together a number of important findings regarding the social origin of substance use. The model and findings have important implications for prevention. It suggests, for example, that boosting academic skills may be helpful. It also suggests that social and economic programmes that promote stability in neighbourhoods would be likely to decrease substance use. What is worth noting is that these methods of prevention do not directly target substance specific beliefs.

## Problem Behaviour Theory

Jessor's problem behaviour theory is concerned not only with substance use but with other behaviours that are considered problematic including anti-social behaviour, rebelliousness and precocious sexual behaviour (Jessor et al., 1991). A crucial feature is the idea that young people who are prone to one kind of problem behaviour (drug use) are also prone to other kinds of problem behaviour (delinquency).

In ordering the relevant influences, this model divides both personal and environmental influences into distal, intermediate and proximal factors. In terms of personal influences, the distal characteristics involve a personal belief structure, which means that young people are at risk of substance use if they are alienated, have low self-esteem and have an external locus of control. The intermediate personal causes are focused on dominant values and suggest that substance use is more likely if they value involvement with their peers and have low expectations of academic achievement. The final feature of intra-personal causes has to do with tolerance of deviant behaviours and the belief that the benefits of substance use outweigh the costs.

There is considerable support for the importance of the constructs suggested in the problem behaviour theory. On the fundamental point of the relationship between the different kinds of behaviour, the most consistent finding is that such behaviours do indeed tend to occur together but with a tendency for the size of the correlation to be dependent on the gravity of the behaviour in question. There is also considerable evidence that substance use is more common among young people who feel detached from their parents and who are more influenced by their peers than their parents. The evidence is also supportive of the idea that adolescents who have a high tolerance of deviance<sup>3</sup> are more likely to use drugs. However, the evidence is much less clear regarding the effects on self-esteem and much of the evidence runs counter to this claim.

### Social Cognitive Learning Theory

Bandura's (1997) influential social cognitive learning theory has been extended to a range of behaviours including substance use. In that context, the suggestion is that young people acquire their beliefs about drugs from role models especially close friends and parents who use these substances. This happens in two ways. Firstly, observing role models who use substances tends to shape young people's expectations regarding the outcomes of such use (the most likely consequences). Secondly, role models can shape a sense of efficacy to use the substance (that is the necessary knowledge and skills). Equally, observing a friend resist the pressures to use a given substance can boost the young person's sense of refusal efficacy.

Evidence supporting social learning theory comes mainly from the evidence that role models and specifically the peer group might contribute strongly to young people's use of alcohol and illicit drugs. There is considerable evidence that having friends, especially close friends who use particular substances and who do not disapprove of the use of these substances is associated with increased likelihood of reported substance use (Bailey & Hubbard, 1990; Morgan & Grube, 1991).

However, it has to be conceded that peer use might be a consequence of the young person's own use rather than a cause. In fact there are two alternative explanations. One is that young people select their friends on the basis of similarity on relevant characteristics (in this case substance use) and another

<sup>3</sup> The concept of 'tolerance of deviance' was first developed in conjunction with measurement of Authoritarianism. In Jessor's work it refers to a specific measure implying that people with high scores have a greater acceptance of anti-social behaviour.

possibility is that they perceive much greater support (and indeed use) among their friends than is actually the case. Most likely, all of these factors play a role in the observed findings.

Social learning explanations of substance use have important implications for prevention. For one thing, they suggest that peer influence is central to initiation to substances. There have been at least two types of prevention programmes that have used these findings as their point of departure. One focuses on teaching resistance strategies to young people while another claims that an important influence is the misperception of the actual amount of use that takes place among peers. The success of prevention programmes based on these principles will be examined later.

### Family Interaction Theory

Brook et al. (1990) put forward a model in which attachment to family, social learning processes and intra-personal characteristics have a major influence on substance use. It suggests that where parents do not have conventional values or provide little affection for a child or where parents exert little control over a child, there is a risk of a variety of problems during adolescence including poor relationships with parents, maladjusted personalities and eventually involvement with substance using peers which in turn promotes substance use.

More than any other model, Family Interaction Theory describes how parent-child dynamics contributes to substance use. In particular, there is an emphasis on how lack of parental supervision and support contributes to weak family attachments, adolescent personality and substance using peers. In turn it implies that substance use can to some extent be prevented by teaching parents how to supervise and support their children. In line with this, several studies have shown that young people who as children received higher levels of support and encouragement became less involved than those who received less parental support and encouragement (Petraitis, Flay & Miller, 1995).

### Self-derogation and substance use

Kaplan et al. (1984) have put forward a model in which general self-esteem is the key piece of the puzzle relating to substance use. The key feature is that adolescents who experience frequent self-derogation on account of frequently receiving negative evaluations from relevant others or through being deficient in some socially desirable attributes, will tend to have low self-esteem. As a result of feeling unwanted, rejected or deficient, they will tend to believe that their self-worth can be enhanced by engaging in alternatives to conventional behaviours and become involved with deviant peers.

The critical empirical issue for this model is that there is little evidence that self-esteem affects substance use directly. In all of ten studies summarised by Petraitis et al. (1995), not a single one showed a significant correlation between self-esteem and substance use. It may be that there are indirect effects of self-esteem that are masked by a number of other interacting factors. Another important point is that other features of the self may be important features (e.g self-efficacy).

## Biological models of vulnerability

Some accounts of the risk factors in substance misuse include many of the same concepts that are found in other models (parental substance use, school failure, inadequate coping skills) but differ from these other positions in suggesting that the origin is biological in nature. For example, Sher (1991) argues that the children of alcoholics inherit temperamental personalities, mildly impaired cognitive functions and increased pharmacological sensitivity to the reinforcing value of alcohol as well as greater tolerance of alcohol. This can be generalised to other substances to suggest that the origins of substance misuse can be found in the biological basis of personality, cognitive functioning and individual differences in pharmacological sensitivity to substances.

Sher's model is somewhat more sophisticated than others in that it proposes interactions between the various risk factors rather than simply assuming that they have addictive effects. For example, it is suggested that emotional distress will increase the likelihood of substance misuse only among those adolescents who do not have the coping skills to deal with distress.

From the prevention viewpoint, it is worth noting that the biological models have similar implications to those that stress the social origin of substance misuse. For example, there would be agreement that interventions that address school failure, coping skills and family interaction are likely to be helpful whether considered from a biological or social viewpoint.

## Communal Risk Factors

One of the major gaps in current research is that little attention has been given to communal risk factors. One of the few models to have stressed this is social control theory one version of which proposed that social disorganisation can result in the breakdown of established institutions or the inability of these to control behaviour. This in turn predicts that young people may feel uncommitted to conventional society if they come from disorganised neighbourhoods where crime and unemployment are common and where failed social institutions like schools offer young people little hope for the future.

There is evidence that broad cultural factors play an extremely important part in substance use and misuse. The ESPAD study has shown for example, that the traditions that are associated with drinking in wine growing countries seems to result in much lower reported level of drunkenness in comparison to 'beer-drinking' countries of Northern Europe. It would be of interest to pinpoint how such cultural influences mediate their effects e.g. through family, legal system or schools.

Related to this is the issue of how the pub culture is an important influence on how young people in Ireland begin to drink. Much of the debate about young people's drinking ignores the fact that the practice of drinking outside the home and specifically in pubs/discos has its origin in the attitudes and traditions regarding alcohol in Ireland. It is also important to consider how such cultural factors should be taken into account in devising prevention activities. This issue will be examined in chapter 5.



Also interesting to note is how changing social and economic circumstances can change risk factors. An interesting example is in the effects of part-time work. One of the major complaints of schools serving disadvantaged communities is the amount or duration of part-time work by their students. In relation to the present topic, a survey carried out last year showed that spending on alcohol accounted for a high proportion of the substantial earnings of students in schools serving disadvantaged communities (Morgan, 2000).

## Conclusions

This brief review of models of risk factors in drug use suggests a number of conclusions. Firstly, most of the explanations are complementary to some extent. Thus, explanations stressing intra-personal factors (personality traits) can sit easily with accounts that stress the importance of social factors. In line with this, many of the explanations distinguish between constructs that might be said to have an immediate causal impact on substance use as opposed to those whose effects are mediated less directly. Thus, many models distinguish between distal, intermediate and proximal influences. Where the explanations differ is in which one of these are regarded as the primary cause i.e. the point at which the explanation starts.

A second important conclusion is that most of the explanatory constructs are broad in scope, as opposed to being concerned with substance use only. Thus, constructs like social disorganisation, school failure, lack of family cohesion, rebelliousness and low self-esteem are not especially focused on substance use, and might therefore be expected to have implications for other forms of behaviour e.g. criminality. Similarly, even those influences that are specifically concerned with substances (parental alcoholism) are pervasive enough to be likely to have effects on other domains of behaviour. For these reasons, many of the explanations either attempt to incorporate behaviours in addition to substance misuse (e.g. problem behaviour theory) or could easily accommodate other behaviours.

A third interesting conclusion is that relatively little attention has been given to communal risk factors and to differences between cultures/countries. The evidence that does exist indicates the importance of cultural factors as in the case of alcohol and the evidence indicating the very low level of problems in the Jewish tradition despite widespread consumption of wine at/on festive occasions. Interestingly, the ESPAD study shows great variation between countries that seem to be related to social, economic and cultural factors (Hibell et al., 2001).

A fourth conclusion is that while some studies distinguish between forms of use of drugs, there is no agreed distinction that might be of value in circumscribing risk factors. While it is the case that some distinction between 'experimental' or 'recreational' use on the one hand and 'addictive' or 'problem' use on the other, is implicit in most studies, the boundaries are hard to identify. This has prevented the identification of those factors that might be associated with experimental as opposed to problem use.

Fifthly, it is clear that risk factors are not always negative in nature, especially in the case of experimental drug use. This is illustrated in a longitudinal study by Shedler & Block (1990) who collected information on personality and adjustment from age five years upwards. Their results showed that, at least in the American context of that time, those adolescents who engaged in mild experimentation with cannabis were relatively better adjusted (less anxious particularly) than those who had never experimented while frequent users were the least well adjusted.

Finally, it has been noted by a number of scholars (e.g. Brown & Horowitz, 1993) that the risk focused approach to experimental substance use does not help to identify children who are at risk, mainly because the list is simply too long. Given the number of family, school, community, peer and individual factors, there is hardly a young person who is not at risk!

This is part of the context that has resulted in a need for 'universal' programmes, that is prevention programmes that are meant for all and are not specifically targeted at any particular group. These are considered in the next chapter.

# chapter 3:

## Approaches and Interventions for Preventing Drug Use Among Young People

# chapter 3:

## Approaches and Interventions for Preventing Drug Use Among Young People

### Classification of Intervention Programmes

Interventions to prevent adolescent substance use have been classified in a number of ways based on what the target behaviour is (e.g. use with illegal drugs, onset of drinking), who the targets of the intervention are (e.g. children, high-risk youth, general population of youth, parents), where the intervention is implemented (e.g. school, home, community), or what the content of the intervention is (e.g. information, improving refusal skills, correcting normative beliefs, changing sales policies). One way in which current prevention strategies can be grouped is on the basis of whether they are primarily school-based, primarily community, or comprehensive (i.e. some combination of school-based and community) in orientation. This is the line of organisation that is taken here.

By definition, school-based strategies are largely educational in nature and attempt to provide new information, teach new skills, or counter existing beliefs. The immediate goals of such strategies are to directly impact an individual's beliefs, attitudes, and behaviours regarding substances or to change other individual-level mediators (e.g. self-esteem) that are assumed to underlie such behaviours. Within these broad categories, programmes can be further subdivided as to the specific beliefs or skills that are targeted (e.g. information, resistance skills, normative education, affective) or policies they attempt to implement and where they are implemented.

Three points are worth noting in relation to school-based programmes. Firstly, because schools have been the focus of attention for much prevention activity, a large body of research has focused on these outcomes. Secondly, such programmes have been rigorously evaluated in terms of outcomes so that it is possible to say with some precision what effects have been brought about. Thirdly, as in the case of many areas of research, most of the best controlled studies come from the US. This is not to say that the best or most imaginative work emerges from the US; in fact many new and exciting approaches are evident in the work of the Drugs Task Forces (See chapter 5) and in the EDDRA (Exchange on Drug Demand Reduction Action) database discussed below. However, most of the projects are either on a relatively small scale or have been in existence for a short time so that an evaluation of their outcomes has not yet been possible.

### School-Based Programmes

The order in which particular kinds of programmes are considered here is heavily influenced by the historical context. The first generation of programmes aimed at preventing substance use relied on presenting 'the facts' about the effects of such use sometimes embellishing these in dramatic descriptions of what can happen with a view to scaring young people from experimentation. A later approach, involving an emphasis on personal factors, i.e. enhancement of self-esteem or values

clarification, was expected to prevent initiation to drugs. Later the emphasis shifted to social influences including resistance skills. More recently there seems to be a shift from isolated schools programmes to a broad array of prevention activities in home, school and community.

## Knowledge and Information

By far, the majority of contemporary substance use prevention programmes are individually-oriented and school-based. Early school-based interventions relied solely on informational approaches and taught students about the effects of drugs, how they are used, and the dangers of drug use. The goal of such programmes was to change beliefs and attitudes about drug use and thereby modify drug use behaviours.

Although these programmes can increase knowledge about and change attitudes toward drugs, tobacco, and drug use, actual substance use behaviours remain largely unaffected (Paglia & Room, 1999).<sup>4</sup> In addition, there is some evidence that simply providing information about the dangers of drinking, smoking, and drug use may actually increase predisposition to drug use in some circumstances (Stuart, 1974). In this latter study, a fact-oriented drug programme was offered in two formats (student led to teacher led). Results indicated that relative to controls, subjects receiving drug information did indeed increase their knowledge about drugs. However, their anxiety about drugs also decreased and more significantly their use of alcohol and marijuana and LSD was greater than for controls. The results of Stuart's study also showed that while knowledge about drugs and decreased anxiety tended to predispose young people towards use, other factors not measured in the study seemed to be much more important. In other words, cognitive factors are only a part of the influences and presumably only moderately influential in relation to prevention.

Some other work has sought to establish the kinds of people who are more likely to be negatively affected by drug information. The indications are that information may serve to arouse curiosity in those who are risk takers or who seek adventure (Norman, Turner, Zunz, & Stillson, 1997; Paglia & Room, 1999).

One of the programmes that has received considerable attention and which has a large knowledge component is the DARE programme, which is in widespread use in the US and now to a lesser extent in the UK. This is 19 week programme, delivered by a uniformed police officer which stresses, among other things, the consequences of drug use. Evaluations of DARE have been consistently negative in their findings. For example, an evaluation of the DARE programme by Dukes, Ullman and Stein (1996) used seven constructs in the measurement of outcomes. These were: (i) Poly-drug use, that is use of alcohol, tobacco and marijuana and other illegal drugs during the previous 30 days, (ii) Delay of onset of experimentation, that is, the age of onset of use of each drug, (iii) Drug-use attitudes, (iv) Bonds with police, which was measured by ratings of the police as helpful, fair, and trusted, (v) Resistance to peer pressure, which was measured by frequency of giving in to peers, (vi) Bonds with family, which was

<sup>4</sup> As will be clear from a consideration of all the evidence, there is no suggestion that young people should be kept ignorant of facts relating to drugs. Rather these facts should be part of an overall strategy and should be credible and age-appropriate.

measured by perceived parental strictness, understanding and approval of respondents' friends, (vii) Self-esteem, which was measured by the Rosenberg (1965) self-esteem scale. These items were used to study the long-term effectiveness of the DARE programme, by contrasting 9th grade students (roughly junior certificate year) who had received the programme in the 6th grade (6th class) with others who had not received the programme. A follow-up survey employing latent variables to represent the constructs, found no significant difference between DARE participants and controls.

Another evaluation of DARE in the UK context is reported by Lloyd et al., (2000). This evaluation focused on three schools one of which had opted to implement the programme with the others acting as comparisons. They concluded that no general patterns of development in knowledge and attitude were found to have resulted in pupils who received the DARE intervention as compared to those who had not received the intervention (Lloyd et al., 2000).

In the Irish context the 'Ray of Hope' programme is an example of this approach (Kiely & Egan, 2000). This is based on the experiences of a young person using dance drugs (particularly ecstasy) and the problems he experienced as a result as well as the struggle to give up these substances. While there has been a detailed evaluation of the implementation of the programme, involving views of students, teachers and parents, no outcome evaluation has yet been reported (Kiely & Egan, 2000).

Though it is true that information alone is not sufficient to affect drug use, it is likely that providing facts is a necessary component of any curriculum. There are however, two features of such presentation that may be relevant. Firstly, it is likely that stressing short-term social consequences are more effective than an emphasis on long-term adverse effects, as has been shown in relation to cigarette smoking campaigns. Secondly, the information should be credible and should not contradict the experiences that young people have (Mayock, 2000). In this regard, an exaggeration of the consequences of drug use tends to result not only in young people not believing such information but in a decrease in the credibility of the whole programme.

### Effects of Fearful Messages

In the early days of the development of programmes it was suggested that if young people 'really' knew the consequences of drug-taking, they were unlikely to try these substances. This led to the belief that a 'good scare' might be an appropriate way of ensuring that young people did not experiment with substances. This view is still regarded as plausible in popular opinion. On some occasions, the parents of children who have died as a result of drug misuse have been determined to let people know the 'real truth' about drugs. Similarly, it is sometimes thought that if young people hear the horror stories of people who have survived problems with drugs, they are likely to be put off experimentation.

Unfortunately the evidence on the effects of fearful communication suggests that they do not contribute greatly to prevention. Early studies by Leventhal and his colleagues (Leventhal, Watts & Paguno, 1967)

found that fearful communication seem to elicit defensive reactions ('it won't happen to me') and are generally ineffective in preventing people from experimenting with substances. This same finding emerges with other features of health behaviour, especially in the case of HIV infection (Rhodes & Wolitski, 1991). More generally, there is evidence that scare tactics are quite ineffective in preventing anti-social behaviour as witnessed by the outcomes of programmes that show young offenders the 'truth' about a life of crime (Baron & Byrne, 1997).

### General Self-Esteem and Values Clarification

During the 1970s and 1980s, other approaches were attempted, including programmes that emphasised values clarification, improving self-esteem, and improving features of broad personal development. The objective was to improve students' self-image and ability to interact socially, through discussion of feelings, values and self-awareness. Rarely was drug or alcohol use addressed directly in these programmes. Rather, the focus was on broader risk factors and social skills that were assumed to underlie drug and alcohol use. Evaluations suggested that these programmes were not especially successful largely because they did not relate skill building to specific drug situations (Tobler, 1992). It will also be recalled that the review of research on self-esteem showed no relationship between the measures of global self-esteem and actual substance use.

In Ireland, the Graffiti Theatre Company has been involved in Theatre in Education for some years, part of which involves a production called 'The Changeling', targeted at children in 5th and 6th classes in primary school. Because the aims of the programme are broad in nature (self-esteem, social development, aesthetic development), it seems appropriate to locate the programme in the broad personal development strand (Kiely & Egan, 2000). An evaluation of the intervention (focusing on its content), notes that the workshops in the programme 'employed discussion only rather than skills training techniques or opportunities for role play .....This meant that as a challenge to traditional learning methods, the programme did not achieve its full potential' (p. 229).

### Social Influence Programmes

These programmes were based on the assumption that young people who use substances do so because of social pressures from peers, family, and the media as well as from internal pressures (the desire to look cool and popular). The other assumption is that many young people start with negative attitudes to alcohol and drug use, but rarely have to justify their unfavourable attitudes toward these behaviours. As a result, when challenged, their beliefs were easily undermined. These new programmes attempted to "inoculate" young people against such challenges to their beliefs by addressing resistance to social pressures to use drugs.

Along with information components, these programmes attempt to teach methods to counter the pressures to experiment and also to motivate students to resist these pressures. Within this broad

framework a number of features are brought into play. Firstly, normative education seeks to undermine the popular belief that drug use is more prevalent than is actually the case and that it is socially acceptable. Secondly, students learn resistance skills including assertiveness, goal-setting, problem-solving in an interactive delivery mode such as small group discussions, role playing and demonstrations. Thirdly, students learn about the tactics of advertisements such as those for alcohol and learn counter-arguments to these messages.

The evaluations of these studies have generally yielded fairly promising results. In some cases these effects have persisted for months and even years after the initial programme (Botvin et al. 1995). For example, the OPENING DOORS programme (devised by the Addiction Research Foundation, Ontario) is an example of a school based programme targeted at high-risk students (Grades 8-10, that is middle years of post-primary school) with the aim of preventing substance use and other problem behaviours including school drop out and violence. The programme is delivered by a school staff member and a health care professional from the community. The curriculum entails the enhancement of social and personal skills via group activities and discussions.

An evaluation of the OPENING DOORS programme produced promising but mixed results from 21 schools in a quasi-experimental design. Seven months after the programme, the experimental group showed a decrease in the frequency of alcohol use and binge drinking and less favourable attitudes towards the use of cannabis, alcohol and cigarettes compared to a control group. However, there were no effects on actual use of cannabis nor were there effects on the variables that might have been expected to mediate such changes (self-efficacy and self-esteem).

With regard to alcohol, the Alcohol Misuse and Prevention Study (AMPS) is typical of the current generation of school-based alcohol prevention programmes focusing on teaching students about pressures to use alcohol, short-term effects of alcohol, risks of alcohol misuse, and ways to resist pressures to use (e.g. Shope, Copeland, Maharg, & Dielman, 1996). The initial programme was developed for fifth or sixth graders, with some students receiving booster sessions one and two years later. An enhanced version of the programme consisting of an increased number of sessions and including norm settings was later developed and delivered to students in grades five through eight (end of primary to second year of post-primary) and was also implemented for high school students (Shope, Copeland, Maharg, & Dielman, 1996), some of whom had been exposed to the earlier curriculum. The stated goals of the AMPS programme were to reduce alcohol use and misuse.

Evaluations of the original AMPS programme provided evidence of positive effects on curriculum variables (e.g., alcohol knowledge and knowledge of resistance skills) that persisted up to 26 months. Despite relatively small overall effects on consumption, alcohol misuse (defined by ten dichotomised items measuring overindulgence, complaints from others about drinking, and having been in trouble over alcohol use) was reduced among some subgroups of students. Specifically, the programme appeared to



affect sixth graders who had had prior unsupervised drinking experience. The enhanced programme appeared to reduce alcohol use, but not misuse, in seventh grade (first year post-primary) for students exposed to the intervention in sixth grade in one study (Shope, Copeland, Marcoux, & Kamp., 1996) and to reduce misuse, but not use, among those who had previous drinking experience in another study (Dielman, 1995). Furthermore, effects were found up to six years after the initial programme.

One particular feature of social influence programmes that has received particular attention has to do with 'normative education'. This feature seeks to change misperceptions of substance use among peers, that is, to correct overestimations of peer substance use and approval of such use by providing feedback of survey data showing actual prevalence rates and through guided class discussions on opinions toward substances. Some of the initial evaluations of these programmes seemed promising, especially in relation to alcohol use. Thus, for example, a 9 session normative education programme and a 10 session combined normative education and resistance-skills programme, delivered in seventh grade, each resulted in a net decrease in change in reported drunkenness of 8% by eighth grade (second year post-primary), compared with an information only programme (Hansen & Graham, 1991). That is, prevalence of self-reported intoxication increased from about 15% to 27% among those in the information only control, whereas it increased from 14% to 18% in the normative education group and from 12% to 16% in the combined group.

The British Project *Charlie* is perhaps best described as being based on a social influence model although it contains other components including self-esteem enhancement and the provision of information. The design of the evaluation is complex and involves a relatively small number of students (Hurry & Lloyd, 1997). However, the indications are that the intervention reduced the use of tobacco and alcohol but not of illegal drugs. There were also indications that the project resulted in more negative attitudes than control groups.

The Irish programme, devised jointly by the Departments of Health & Children and Education & Science, '*On My Own Two Feet*' is perhaps best described as a social influence type programme since it includes training in social skills to resist pressures, as well as relevant information on substances. Teacher training (roughly 50 hours) in appropriate methods including role play and group discussion are an interesting part of the programme. The evaluation of the pilot phase of the programme, using a quasi-experimental design showed that compared to the controls, the children in the programme had less favourable attitudes and expectations than those in the control group (Morgan et al., 1995).

The Life-Skills programme of the North-Western Health Board has been evaluated by the Centre for Health Promotion Studies, UCG (1995). The programme is based on seven skills including communication, relationship building, assertiveness, maintaining self-esteem, skills for maintaining physical well-being, stress management and time management skills. It should be stressed that substance use is only of several topics in the programme.

The quasi-experimental design yielded significant differences between Life-Skills participants and 'controls' in terms of alcohol usage. For example, 27% of the Lifeskills young people reported being drunk at least once compared to 42% of the reference group. The differences were especially great in third year post-primary where Life-skills students reported drinking significantly less beer, wine, spirits or cider as well as getting drunk less often. While there were no differences associated with the programme with regard to cigarette smoking and while no differences are reported with regard to illegal substances, these findings are quite impressive by any standard.

The video 'Not Everyone is Doing It', was initiated as part of the Cork Corporation drugs awareness prevention campaign in 1996. It is especially interesting in that it includes a strong normative education message challenging the universality of drug use among young people (Kiely & Egan, 2000). The evaluation of the content of the video through interviews with students and teachers suggested that '...the normative message was considered to be weak by the students' (p. 232). Obviously, the acceptance and credibility of the normative message is critical for the effectiveness of the normative approach.

## Comparison of Approaches

The important question of the relative effectiveness of various approaches has not been frequently addressed because usually only a single type of programme has been evaluated, usually against a control group which did not experience the programme in question. Meta-analysis allows for comparisons of effect sizes across studies and is especially suitable for attempting to gauge quantitatively the collective outcomes of several studies under different conditions and with different populations.

The meta-analysis by Tobler & Stratton (1997) of existing school based drug prevention programmes is especially worthwhile, following a similar analysis by the same author in 1986. The final number of programmes included in the later analysis was 120, and the target groups involved were between 5th grade (5th class) and 12th grade (Leaving Certificate). Only programmes that had measures of self-reported use were included. What was especially interesting is that the various programmes were categorised in two ways. Firstly, they were divided in terms of the content of the programme roughly along the lines discussed above, ie. knowledge only, affective, refusal skills and generic social skills. Secondly, the programmes were also categorised in terms of the process that occurred, with a major distinction being drawn between those programmes that were didactic or non-interactive versus those which involve substantial interaction and group work. Rather than having interaction vs. non-interaction as a dichotomous variable, the coding was along a continuum from least to most interactive.

The results indicated that the effect sizes associated with interactive programmes (social influences and skills programmes) were substantially greater than those for non-interactive programmes (knowledge and affective programmes). Furthermore the interactive programmes were in relative terms, equally successful with cigarettes, alcohol and cannabis. The meta-analysis also showed that interactive programmes were

relatively more effective with illicit drugs other than cannabis. This analysis also allowed a comparison of different kinds of leaders in the interactive programme (teacher, peer, health clinicians). It seemed that there were not major differences between different kinds of leaders. Furthermore, interactive programmes were better with different kinds of populations (e.g. minority groups) and their effects were in relative terms as good with delayed measures than when outcomes were measured immediately after the programme.

## School Policies

There has been considerable attention on the matter of school policies on students' substance use and the consequences. This is especially the case given that a number of schools in Ireland have adopted a 'zero tolerance' to illegal drug use among students which has resulted in some expulsions and which in turn have resulted in a number of court cases where such expulsions have been appealed.

A study by Gliksman et al., (1992) in Canada showed that school policy has some effects on substance use in that schools with a comprehensive school policy had lower levels of substance use than those which did not. There is a problem with regard to the extent of causal direction in this study (perhaps those schools with lower substance use tended to develop such policies). Furthermore, the study did not examine the nature of the comprehensive policies i.e. what effects did punitive policies have on substance use.

The strongest evidence on the effects of school policies comes from studies on smoking. In particular, a study by Pentz et al. (1989), found that while school policies emphasising quitting and prevention had positive effects, punitive measures had no effect. Similarly, Munro & Midford (2001), from the Australian context suggests that the adoption of 'Zero Observations on School Programmes tolerance' policies within schools will lead to punitive treatment of drug experimenters but will do nothing to reduce drug use. They argue cogently against imposing an 'undiscriminating rejection' on any student who uses an unsanctioned substance, regardless of the circumstances' (p. 109).

There are only a few instances of how schools or groups of schools might develop policies. About five years ago a group of 28 schools in the Newcastle area of England developed a joint school policy as a way of banding together in mutual support. This resulted not only in a common policy statement but also in a common staff training programme (Lloyd et al., 2000).

Little or no information is available on the consequences for individual students who are expelled from school as a result of substance use. In the evaluation of the Crinan Project (Morgan, 1997), I was struck by the number of the young heroin users who were expelled from school either for matters related to drugs or for other reasons. The line of argument put forward in the recent Government policy statement (2001) on the alienating effects for those excluded from school seems a reasonable comment on these consequences.

## The EDDRA Data Base

The EMCDDA have collated over 240 demand reduction activities at their website (<http://www.emcdda.org>) under the title EDDRA (Exchange on Drug Demand Reduction Action). About half of these are concerned with primary prevention and of these, the majority involve schools in one way or another. Every European Union country is represented in the data base. The main features of these programmes are described here.

**Emphasis on peer influences.** In many accounts of the influences on initiation to drugs, the peer group is given major prominence (See Chapter 2). A notable feature of the EDDRA programmes is that so many seek to identify and train peer leaders and thus influence the behaviour of a larger group. To some extent therefore, these programmes adopt a two-step approach, that is, from programme leaders to peer leaders who in turn are supposed to modify the behaviour of their friends and peers.

For example, the La Mancha (Spain) programme for tobacco, alcohol and drug education, classroom leaders are selected and trained to transmit information and conduct small group work with their colleagues, using an active learning methodology. In the programme INVOLVE (Thames Valley, UK) it takes as its point of departure that young people need to experience a safe environment for the discussion of drugs, whereby the adverse effects on health and the legal implications are put across in a dispassionate manner by people who are credible (ie. peers). Following training for peer leaders in a residential setting, drug education is delivered in classroom settings.

**Non-Directive learning.** One of the main conclusions emerging from evaluations of drug prevention programmes is that teaching and learning methods that are overly directive are less successful than those in which learners play an active role. This emphasis is evident in several programmes in the EDDRA data base.

The Greek programme for the Prevention of psycho-active substance use focuses on the broad influences that might counteract use including beliefs about substance use, skills for the enhancement of self-esteem, communication improvement and control of aggression. The primary technique for delivery of the programme is group discussion including behavioural and cognitive techniques. Similarly the Portuguese project 'Community Health Project for Health Promotion' also place non-directive learning at its centre. While the themes of the programme are set out, there is a particular emphasis in discovery learning in working through the materials.

**Targeting.** In Chapter 5 of this report, attention is drawn to the particular need for targeted interventions to off-set factors associated with substance misuse, particular educational, economic and social disadvantage.

In the EDDRA data base, these programmes are well represented. For example, the programme initiated by the Dublin VEC 'Copping On', which is targeted at early school leavers who are at risk of becoming involved in criminality. Similarly the German programme 'No drugs- No Risk – More Fun' is concerned with

dealing with factors that may lead to delinquency. Along the same lines the UK 'Youth Awareness Programme' is specifically aimed to young offenders with a drug problem.

**Drama.** It is noticeable that a substantial number of the programmes in the EDDRA database make use of drama or even have drama as the central component. Mention has already been made of the Irish programme 'The Changeling Project' which explores the main themes and influences in drug use through drama. Similarly, the Northumbrian project in the NE choices programme involves teams of actors who visit a school for a full week culminating in drama presentation on Friday afternoon. The key messages concerned the effects of mixing alcohol and drugs and about stepping back from occasional drug use.

The Portuguese project 'Adventure in the City' does not involve professional actors but involves role playing based on the idea that such strategies are the most effective ways of communicating with different age-groups. The programme is concerned not only with drug misuse but also with school failure, low self-esteem and poor social competencies. The evaluation of the project showed that teachers, parents and community leaders were enthusiastic about the approach and the materials. However, there was no evidence of behaviour or attitude change among targeted students.

**Programmes across countries.** For example, the Greek programme 'Stand on my Feet' is similar in content, philosophy and methodology to the *On My Own Two Feet* programme.

Similarly the Spanish programme 'Building up Health' is an adaptation of the American programme 'Life Skills training'. It has the same features as the original including sessions on information, self-esteem, decision-making, social skills, emotional control, and training in tolerance and co-operation. Finally, it is also worth noting that the project 'Together' is a cross border one that involves four communities; two in Finland and two in Sweden.

**Varying kinds of evaluations.** There is considerable variation in the extent to which programmes in the EDDRA database have been evaluated. In some cases no evaluation information is presented but more commonly information on the reactions of participants or trainers is presented. For example, the Austrian project SAS (Pupils Searching for Alternative Solutions), shows that the workshops associated with the project were well received. A quarter of the pupils questioned said that they gained many new insights into the issue of addiction and the majority of pupils took the view that it was very important to deal with topics related to drugs. However, there was no effort to see how factors associated with actual use may have been affected.

In contrast, the ALF programme in Germany is being quite rigorously evaluated. The design involves a three-year longitudinal study with a quasi-experimental control-group design (matched controls). Firstly, the results showed that the students responded very well to the lessons in the sense that 90% of the experimental group wanted the lessons to be continued. Furthermore and more importantly the

experimental group were found to have a significantly lower rate of substance use as measured by 30 day prevalence, than was the case with the control group.

**Strengths and Weaknesses of the EDDRA programmes.** One of the distinctive features of the EDDRA programmes is the variety both in terms of approach, and focus. In addition to the examples cited above, there are instances of initiatives that are aimed at development of school policy including the Belgian programme 'Drug Policy at School; which deals with drugs, rules and sanctions as well as education and preventive measures. An emphasis on alternatives is seen in several programmes including the Finnish programme 'Free from Drugs'. Another interesting and novel feature is the development of resources for prevention using advanced technology as exemplified in the French AREMEDIA programme which is based on interactive software that enables the tool users to retrace their own biography in various possible risk taking situations.

On the other hand, the evaluations that have been carried out on the various programmes is, with some exceptions quite modest. Only in a few cases have efforts been made to gauge the effects on actual drug use. The EMCDDA have made major efforts to enhance the evaluations of projects by publishing Guidelines on Evaluation. These have met with widespread acceptance and are likely to improve the standards of evaluation considerably. As a development of the Guidelines, the EMCDDA have also published an Evaluation Instrument Bank which allows evaluators to select appropriate instruments for whatever phase of kind of evaluation is being planned (<http://www.emcdda.org>).

### Comment on Effectiveness of School Prevention Activities

It is well known that the conclusions of different reviews of school programmes vary widely, with some reviews being especially pessimistic. Part of the reason is that researchers who are directly involved in implementing such programmes tend to be very positive about the promise of these interventions for reducing drinking and drinking problems (e.g., Dielman, 1995; Botvin & Botvin, 1992; Hansen, 1993). On the other hand, reviewers who are less directly invested in these programmes are considerably less enthusiastic about their potential (e.g., Brown & Horowitz, 1993; Foxcroft, Lister-Sharp, & Lowe, 1997). These latter reviewers have been sharply critical of the way in which data from school-based prevention evaluations have been presented and, in some cases, have suggested that there has been a tendency to exaggerate positive outcomes while ignoring negative outcomes.

This difference seems to this reviewer to have to do, at least in part, with expectations. It is not reasonable to expect that a modest intervention lasting a few hours will have effects persisting months or years. For example, the study by Nutbeam et al., (1992) attempted to prevent smoking in normal classroom conditions. While the study is frequently quoted as an example of a study with negative outcomes, less attention is given to the fact that the intervention lasted only about an hour in total and there were no other support features.

It is hardly surprising that such an intervention did not result in a substantial change in behaviour. Nothing that is known about behaviour change from any one of the behavioural sciences would lead us to expect that a weak intervention should have long lasting effects on behaviours that have such central significance in people's lives as is the case with substance use.

Another important matter is the level of implementation of programmes. Later this matter will be considered in detail. For the moment however, it is important to note that many programmes 'fail' because they are not implemented adequately.

## Community Approaches to Prevention

This review is in two major sections. In the first section, a number of approaches that are generally considered as 'top-down' community approaches are examined. These include mass media campaigns, family based approaches, full-scale comprehensive community programmes, label warnings and changes in laws and regulations.

In the second section, some of the thoughts and findings of the 'bottom-up' community approach are set out. While this section is relatively briefer, this is merely a reflection of the absence of evaluation research in the extant literature. Many people writing in the area regard this approach as having considerable potential for the future.

## Mass Media Campaigns

There has always been a widespread belief that mass media campaigns can be useful in attempts to decrease substance use among young people. This is based at least partly on the finding that young people report getting most drug information from television, followed by parents and other print media. For example, the study by Wright & Pearl (1995) sought to establish the sources and nature of young people's knowledge about drugs, between 1969 and 1994 at intervals of five years, in English secondary schools. The results indicated that the proportion who knew someone taking drugs more than quadrupled from 15% to 65%. However, it still remained that television has continued to be the main source of information about drugs.

The most convincing evidence with regard to the effects of the mass media come from studies of smoking prevention. For example, in one study in the US, it was found that the combination of mass media campaigns with school-based programmes had a stronger impact than was the case if a school-based intervention only was used (Flynn et al., 1995). Similarly, a campaign in Norway during the mid nineties was aimed at preventing young people from smoking and strengthening the resolve of those who had stopped. The results showed that compared to control fewer girls had taken up smoking after the campaign and more girls had actually quit smoking (Hafstad et al., 1997).



While there is some evidence, therefore that the media can be a useful prevention tool, they are more likely to operate indirectly. Thus, they can often help campaigns to get off the ground and lead people to use other services. The media can also influence the general climate that influences the acceptability of certain policies. One feature of media campaigns seem especially important viz, the credibility of anti-drug messages. A study by Skinner & Slater (1995) examined this feature of the Public Service Advertisements that are frequently broadcast in the mass media. It was found that the credibility of the messages depended on characteristics of students. For example, rebellious adolescents considered these messages to be less credible than did non-rebellious students.

A recent review of the evidence of the media concluded that the most effective approaches in the media avoided fear and moral tactics, emphasised the short-term rather than the long-term consequences and avoided the use of celebrity spokes-people on the grounds that young people often suspect the extent to which these are genuine (Paglia & Room, 1999).

### Health Warning Labels

These labels were initially used with cigarettes and more recently a warning label has been on alcohol beverage containers in the US since 1989. The indications are that the majority of young people have seen the warning labels on cigarette packs but a significant minority are still not convinced about the dangers of smoking (Morgan et al. 1999). An important consideration is that labels should be targeted at young people rather than always carrying a message focusing on long-term health effects. It seems reasonable to suggest that labels of this kind will be a component of the prevention of legal substances but cannot be expected to have a major impact on its own.

### Family Interventions

Particular attention has been given in recent times to family programmes that attempt either to strengthen the influences' of families in general or help parents to deal with substance use specifically. The Strengthening Families Programme (Kumpher, Williams and Baxley, 1997), is designed to improve broad features of family risk factors and includes parent training, children's skills training designed to decrease problematic behaviour and family interaction training. The initial evaluation of the programme (Kumpher et al. 1997) showed that the intervention was successful in decreasing problem behaviour and also brought about improvements in the intentions not to use substances. An ongoing evaluation will show whether these intentions have been translated into actual decreases in substance use.

A home-based programme which specifically targeted substance use (as part of a larger project) is 'Slick Tracy Home Team Program', which was administered through booklets in school districts in Northern Minnesota (Williams et al., 1995). Each of the booklets in the programme included a comic narrative, two activities that parents and children completed together, a third activity to encourage the sixth grade children to reflect on the theme for the week, and finally a component for direct parent education. The



basic idea was to provide an education format for parents and their children to begin communicating about substances in general and alcohol in particular.

Perhaps the most interesting outcome of the Slick Tracy Home Team Programme was that the vast majority of the parents participated (over 90%) resulting in a high level of implementation independent of socio-economic background. The results also showed greater understanding of the consequences of substance misuse and a greater willingness to talk about substance use in the intervention families compared to a reference group (Williams et al., 1995).

This is a relatively new area of research and one that has considerable promise. Obviously if programmes can reduce broad risk factors, there would be considerable benefit not only to drug prevention but also with regard to other problems including early school leaving and anti-social behaviour. (A more detailed examination of family programmes will be presented when targeted programmes are being examined in a later chapter.)

### Large Scale Community Programmes

The MidWestern Prevention Programme (MPP) is an example of major a five year programme in Kansas and Indianapolis during the late eighties (Pentz et al., 1989). There were five components: a school programme, a parents programme, mass media advertising, community organisation, and policies to restrict access and availability.

Evaluations of the effects of the MPP on prevalence rates of substance use at one year and three year follow up measurements, showed that there was a reduction in nearly all forms of substance use (Pentz et al. 1989). Furthermore, the results held for both high and low risk youth. However, there is a suspicion that the positive results found may have been due in part to the non-equivalence of the experimental and control groups. Specifically, the groups were different in terms of socio-economic and ethnic composition as well as age - factors that have been shown to be related to substance use.

Project Northland is a large community based programme aimed at preventing alcohol use among adolescents. The initial phase of the programme involved four components implemented simultaneously: (i) a school-based programme based on the social influence model, (ii) parent programme, (iii) peer leadership of alcohol-free extra-curricular activities and (iv) community policy changes. This first phase began in sixth grade and lasted for three years and 24 school districts were randomly assigned to either an intervention or control group.

The second phase (1996-98) of project Northland is aimed at students during the high school years. It is comprised of five strategies: (i) community organisation to reduce access to and availability of alcohol, (ii) youth action teams focussing on reducing alcohol related problems, (iii) print media used to advertise community events, (iv) a larger campaign targeting older youth (the 'providers' of alcohol), and (v) a school curriculum in Grade 11 which covers the social and legal consequences of alcohol use.

The results from phase I of the Northland project indicates that the intervention group has lower rates of alcohol use and less perceived peer pressure to use alcohol compared to the control group. In addition, it seems that the project was more successful with students who reported no alcohol use at baselines than with those who had tried out alcohol (Perry et al., 1998). However, these differences tended to diminish over time. The results of the second phase of Project Northland have not yet been published.

Finally, Communities Mobilising for Change on Alcohol (CMCA), was a community organising effort focused on changing local policies and practices to reduce underage access to alcohol in Minnesota and western Wisconsin. Pairs of communities were matched on state, presence of a residential college or university, population size, and results of a baseline alcohol purchase survey. The intervention itself was process-oriented and sought to organise each experimental community to take on the task of developing its own specific interventions. Examples of interventions undertaken by the communities included using decoy operations with alcohol outlets, monitoring of outlets selling to youth, keg registration, developing alcohol-free events for youth, shortening hours of sale for alcohol, responsible beverage service training, and developing educational programmes for youth.

Evaluation data were collected at baseline, and again about two-and-a-half years after beginning the intervention. Significant intervention effects were found on measures for purchase, ie. less attempts were made to purchase alcohol on the target communities. In fact, there was a 10% net reduction in sales to minors. However, no significant effects were found in the proportion of young people who reported drinking in the past 30 days, although the results were in the desired direction. The researchers indicate that although many of the anticipated effects were non-significant, most of the indicators were in the direction of the predicted intervention effects and were consistent across all seven of the intervention sites (Wagenaar et al., 1994).

While it may be wandering somewhat out of the domain of this review, it is worth mentioning one community programme that has been extremely successful. The Saving Lives Programme was a five-year project implemented in six Massachusetts communities (Hingson, et al., 1996) in a comprehensive multi-strategy programme to reduce drinking and driving among 16-20 year olds. The specific interventions included media campaigns, drunk driving awareness days, speed-watch hotlines, police training, high school peer-led education, beer keg registration, and increased outlet surveillance among other activities. A great emphasis on community policy and environmental interventions.

Comparisons were made between the intervention communities and the rest of the state, and between the intervention communities and five matched comparison communities. In addition to showing significant and substantial reductions in overall fatalities and alcohol-related fatal crashes compared to the rest of the state, the percentage of 16-19 year olds reporting drinking and driving showed a 40% decline (from 19% to 9%), relative to young people from the rest of Massachusetts where virtually no change at all was observed. The percentage of adolescents in the programme cities who believed their driving license

would be suspended if they were caught driving after drinking also increased relative to adolescents state-wide.

In the UK, the *NE choices* might be described as a community programmes, even taking into account that the major components are school-based (Stead et al, 2001). This is a three year intervention using a multi-component social influence model and targeting 13-16 year olds in the North East of England. The components include school activities such as drama, parents's sessions, media activity, community consultation and school drugs policy development.

The process and impact evaluation all provide encouraging results for the programme. The indications are that NE choices has a theoretically sound basis and has the potential to influence drug-taking behaviour. Only the process and impact evaluation results are available at the time of writing but these appear promising (Stead et al. 2001)

### Conclusions on 'Top-down' Community Initiatives

Community interventions appear to be relatively more effective when the community activities are primarily designed to support school-based programming and also to address supply issues. The problem is that in many programmes "community" activities are largely limited to parent involvement in homework, parent training in communications skills, community task forces, and media. More comprehensive programmes (e.g., Hingson, et al., 1996) that implement significant changes in policies and enforcement appear to have considerably greater success in reducing such the problems associated with substance misuse.

### 'Bottom-up' Approaches

An emphasis in empowering communities in the effort to tackle the drugs problem has been evident in policy statements in recent years, especially in the thinking that surrounded the setting up of the Drugs Task Force and in the recent National Drugs Strategy Building on Experience. It is beyond the scope of this paper to examine the rationale of this approach. Rather, I will concentrate on preliminary attempts at evaluating the success of projects in Ireland and Europe.

As McCann (1997) notes, 'Community Development' has focused on social and economic issues many of which are risk factors for drug problems. She notes a number of features/emphases of this approach. These include a move to 'community' services in drug treatment and use of local people as a resource to back-up statutory services or to 'sell' the ideas to people in the area. Another and more radical strand, involves the community having a say in the identification of needs, allocation of resources, and implementation of programmes. In McCann's view these strands should come together or risk increasing powerlessness among the people who are being targeted.

An indication of what 'community involvement looks like in the LDTF projects is found in the evaluation carried by Ruddle et al. (2001). The first interesting point is that the majority of the projects (51%) funded by LDTFs were in the area of prevention. It is of particular interest to find how the community was involved in these projects. The commonest way was through representation on the management committee, while another frequent means of involvement was through having local people work in the project either as volunteers or in paid employment. The projects also tried to engage the local community through information giving, having a local forum or through use of newsletters and radio. It would be of interest to see how community involvement was experienced by the community in terms of the distinction made by McCann above. This is a topic that is worthy of further research.

The community development approach has been central to the Home Office Drugs Prevention Initiative (DPI) launched in the UK about a decade ago. Twenty local drug teams were established with the aim of co-ordinating the efforts of communities and agencies involved in drug prevention to work. Particular attention was given to supporting neighbourhood based practitioners, using community networks, initiating training and resourcing action research. An evaluation of this work indicates that there are signs that communities were taking an increasing lead in drugs prevention and that there was particular merit in establishing what approaches work most effectively in this context (ACMD, 1998).

Through the '*Poverty, Drug use, and Policy*' grants scheme, the Combat Poverty Agency supported seven local groups who were tackling the issue of drugs in their areas through community development. The scheme was intended as a way of enabling groups to develop a policy dimension to their work so that they could begin to engage with the policy making process. The evaluation of the project (Dillon, 2000) shows that they were successful in establishing new initiatives or structures to address a range of drug-related issues in their own communities including new working relationships with local schools, involving pharmacists in a partnership, and commitment to new facilities by agencies in the area. However, the evaluation also showed that organisations dealing with the critical effects of drug abuse within their own communities find it difficult to get the time, space and resources to develop a policy understanding from their experience, let alone a strategy for understanding that policy. A forthcoming paper by Cullen (2001) is concerned with assessing the community responses to the measures taken in Urban neighbourhoods through the Task Forces. His conclusion is that there are both positive and negative responses.

An important consideration for communities is that their participation will frequently occur in the context of the interaction of several State Agencies, which in turn raises issues of multi-sectoral working. The work of Lyons (2000) represents an interesting case-study in the context of one of the Task Forces. She notes that despite 'partnership', 'multi-agency provision' and 'collaboration' being the buzz words that surrounded the initiative, there were several complexities that lessened its effectiveness. These included some degree to tokenism in relation to the views of communities, inequitable demands on statutory vs. community members, difficulties in finding common purpose, and difficulties in views regarding who 'represents' the community. In particular Lyons identified lack of trust as an obstacle but noted that '..it had not stopped progress, although it may have impeded it at times' (p. 96).

Finally, while there is a large literature on community responses to drugs, hard evidence on the effectiveness of such measures are hard to come by. Gallego (2000) has summarised information on the effectiveness of a major initiative in Galicia (located in the North-west of the Iberian peninsula). What is interesting is that they have produced a number of indicators of the level of activity in the area with regard to prevention, including the number of schools that run programmes, amount and scope of youth work, and the number of potential clients served by various programmes. However, Gallego also notes the difficulties in evaluating the success in this initiative including, problems to do with definition of prevention, integrating all sectors into the evaluation and the lack of the required expertise.

overtly



# chapter 4:

## Reasons Why Some Programmes are Ineffective

# chapter 4:

## Reasons Why Some Programmes are Ineffective

The previous chapter has indicated that many programmes do not fulfil the promise that motivated the programme in the first place. It is especially noteworthy, however, that there is a divergence between the evaluations of people who are sympathetic to interventions who tend to produce fairly positive evaluations and professional programme evaluators who tend to underline the failure of programmes to bring about long-term behavioural effects. A number of factors may be extremely important in this. One has to do with the expectations that are appropriate for programmes of this kind, given our knowledge of the factors that influence behaviour. Another has to do with implementation. As is the case with many innovations, some programmes 'fail' because they don't happen. Other relevant matters include the 'normalisation' of drug use, failures of training and failing to adapt programmes to the local settings. These are considered below.

### Unrealistic Expectations

The evidence reviewed in the last chapter is often perceived as disappointing by even the most ardent proponent of drug prevention education and dismissed as a total failure by the more sceptical scholars. Part of the reason for this stems from differing expectations about what prevention programmes can do in general and specifically what school curricula in particular can do. This matter is worthy of some consideration.

While the influences on drug use are not agreed (as evident from the chapter on risk factors), nevertheless it is clear that many of the factors influencing initiation into and maintenance of substance use is clearly beyond the scope of the influence of the school. Whether we identify biological vulnerability, family factors, social 'disorganisation', poor relationship with parents or impaired cognitive functions as being critical in substance use, there is little evidence that schools can exert a profound influence on such variables. Even if we accept that peer influence is an important link in the chain to experimental use, the social skills programmes, even at their best, are a relatively weak treatment to undo such influences. It is unrealistic to expect that such programmes can be totally effective since they merely attempt to teach refusal and coping skills. It is expecting a lot to think that such training will easily transfer to a 'real-life' situation.

For these reasons Hawthorne (2001) comes to rather pessimistic conclusions about the potential of school programmes. He noted that the key predictors of drug use are outside the direct ambit of schools, and have to do with family, friends and social milieu. For these reasons he suggests that 'expectations of school based programmes need to be consistent with the influence that schools exert' (p. 117).

The problem of expectations is especially evident with regard to evaluations of the scope and duration of effects. The pessimistic evaluations have frequently dismissed programmes on the grounds that no



differences in actual substance use were evident between treatment and control groups some years after the intervention (e.g. Foxcroft et al. 1997). However, people familiar with interventions in education/social studies will have considerable difficulty in pointing to any interventions that have sustained effects without further support long after their delivery. Rather, it may be more relevant to point to possible relatively short-term effects.

The next chapter will consider interventions that target children and families in disadvantaged circumstances. What will become quite clear is that even these frequently 'fail' and bring about change only if they are intense, long-term and tailored to suit individual families. For these reasons, we can only expect limited effects from relatively brief school-based interventions.

### Programme Implementation

There is considerable evidence that part of the reason why prevention programmes frequently fail is that they are not properly implemented. One line of evidence supporting this comes from studies that have compared schools or classrooms where programmes were implemented faithfully with those which were not. The results have generally found predictable differences.

An example is the study by Pentz et al. (1990). This study evaluated the relationship between level of programme implementation and changes in adolescent drug use in the American Midwest Prevention Project (MPP). Implementation was measured by teacher self-report and by research staff reports. Drug use was measured by student self-report and an expired air measure was used to increase the accuracy of self-reported drug use. Items in the measurement of implementation included measures of (i) adherence (whether the programme was implemented) (ii) exposure (length of time x number of sessions), and (iii) reinvention (extent of deviation from the programme as designed). A global rating of how well the programme was implemented was also made by teachers. In addition, observers rated class participation, interest and teacher completion as well as an overall rating of implementation. What was particularly striking was that the success of the programme was directly related to the level of implementation.

Similarly a study by Botvin et al. (1995) examined the long-term efficacy of a school-based programme on nearly 4,000 7th-grade students who were followed up six years after baseline. The intervention consisted of 15 classes in 7th grade, 10 booster sessions in 8th grade, and five booster sessions in 9th grade. The students were taught general life-skills as well as resistance skills. What was especially interesting was that the study identified a 'high fidelity' sample, that is individuals who received a relatively complete version of the programme. It was found that the reduction in poly-drug use was relatively large among this group (close to two thirds) compared to controls. It was concluded that the effectiveness of programmes was enhanced by level of implementation; by range of skills taught; and by 'booster' sessions.

The work of Battisch et al. (1996) which was concerned not only with drug use but with other forms of delinquency also showed rather similar findings. In this study, 2,438 demonstration students and 2,321 comparison students and their teachers were assessed over three years. The results showed that the programme was associated with significant reductions in drug use and delinquency. What was of particular interest was that the strongest effects were found for students in schools with the greatest degree of progress in programme implementation.

A study by Gislason et al. (1995) of the effectiveness of the Lions Quest programme, which has been compulsory in Iceland since 1990 is also of interest. A comparison of those who experienced and did not experience the programme showed no significant difference in terms of outcomes. These measures were prevalence data, (which provided for cannabis) involving frequency over lifetime, breakdown of those who never used cannabis, those who used it once, 2-3 times, and more than three times. There were no differences between the control and experimental groups for any drugs or for smoking or alcohol use. This study is also of interest with regard to implementation in two respects. Firstly, those students who thought that the programme was effective reported less use. Secondly, there was evidence that the programme was not properly implemented, partly because of its novelty and partly because of lack of conviction by teachers.

A study by Cohen and Linton (1995) illustrates the importance and difficulty of targeting programmes at those most in need. This study focused on parent participation in an adolescent drug abuse prevention programme. Compared to students whose parents completed the programme, students whose parents did not complete the programme were more likely to smoke cigarettes and had more friends who used substances, were monitored less by their parents, had lower school achievement and their parents had higher rates of substance use. This study illustrates a widespread issue in implementing a programme, viz, it is somewhat more difficult, but more important to target and reach those families that are in greatest need.

## Problems of Implementation

There are a number of major practical problems involved in the implementation of programmes. These include the failure to evaluate the process involved in the programme as well as the outcomes and the administrative difficulties of keeping large organisations like schools in programmes.

The value of process evaluation is shown in the work of Baklien (1993). A survey of drug education in Norwegian lower secondary schools showed that almost one fourth of the programmes were based on the two-step model (leader and peer education). There were important differences from one school to another with regard to how the pilot pupils and their teaching programme were received. They sometimes found it difficult to find sufficient time for their programmes and sometimes found it difficult to keep their classmates in order.

A study by Ellickson (1994) is concerned with the practical problems of keeping schools and children in large-scale field experiments. While schools usually understand about prevention they do not have the same sympathy for demanding evaluation studies. Among the difficulties are conflicts with educational priorities and routines, resentment of burdensome demands on school personnel as well as the possible negative publicity or parental complaints.

Only a small number of studies have examined the factors associated with implementation of a programme beyond its pilot phase. One such is that by Rohrbach et al., (1995) who found, as might be expected that there are differences between those teachers and schools who continued with the implementation of a programme and those that did not. Those teachers who implemented the programme had fewer years of experience, a strong self-efficacy, enthusiasm as well as principal encouragement. The results suggested that widespread teacher use of innovative programmes couldn't be taken for granted. Such findings are especially relevant for the results of evaluations that fail to find significant outcomes.

### The Future of Implementation

From the evidence considered here, it is clear that we need to know not only what is effective in prevention but also how to implement such a strategy. Curricular reforms, like so many other reforms, sometimes fail because they don't happen. This area of study is an important one because it has received relatively little attention.

To people involved in prevention, it is easily the most important focus, to teachers it can be the latest 'fad' which will soon be replaced by another set of pilot projects. In primary schools the number of subjects has been increased to 14 since 1998, while at post-primary the average number of subjects taken in first year is about 15-16 including 'taster' courses in various subjects (NCCA, 1999). The overcrowding of the curriculum is a real problem in serious implementation, especially in non-traditional areas.

A review of the drug education scene in Scotland (Lowden & Powney, 2000) indicated that many teachers were uncomfortable with this area (dealing with drugs). While this does not seem to be the case in Ireland, there is a need to monitor ongoing implementation of programmes once the pilot phase is complete. For example, it is not clear how the *WALK TALL* programme will be assimilated and continued within the SPHE context. This matter will be considered in the context of our conclusions and recommendations.

### Environmental and Cultural Factors

A major problem with universal programmes is that many of the messages delivered are not taken seriously by large numbers of young people due to the fact that there is a major gap between the

content of such programmes and the experiences of the young people at whom they are aimed. In the review by Coggans & Watson (1995), they conclude that the failure to take into account the social meaning of drug use is one of the main reasons why programmes are ineffective.

This point is developed by Mayock (2000) in the context of drug use in inner-city Dublin. She makes the point that for a large number of people growing up in areas where drug use is concentrated, experimentation is the norm. In these cases....."drug decisions are not fundamentally about whether or not to take drugs ...but on acceptable versus unacceptable drugs, legitimate modes of administration and appropriate styles of use (p. 106)."

More generally, the argument has been made cogently that a certain level of drug use is a 'normal' part of growing up. In a series of publications, Parker and his colleagues (e.g. Parker & Measham, 1994; Parker, Aldrige & Measham) have noted remarkable changes over the years in the use of drugs. As well as increasing rates of use, gender differences have declined or disappeared. Furthermore, social class differences have also virtually disappeared with experimenters only slightly more likely to come from working class backgrounds than middle class. The conclusion is drawn that use of legal and illegal substances have become enmeshed with each other in the social space of young people as part of 'normalisation' in respect of recreational drug use. Acceptance of this line of argument implies that it will be difficult for any of the traditional universal programmes to have major effects on use.

A related point is that the effectiveness of interventions is sometimes lessened by a failure to take into account that young people may be at different stages of drug use (White & Pitts, 1997). This is a particular difficulty for universal programmes since they have difficulty in encompassing the broad range of messages and strategies that will be required to cater for young people at different stages. The issue of targeting is taken up in the next chapter.

# chapter 5:

## Targeted Programmes for Problem Drug Use

# chapter 5:

## Targeted Programmes for Problem Drug Use

Chapter 2 considered risk factors for experimental substance use. What was most striking about the factors considered was the number and variety of risk factors. For this reason it is appropriate that some prevention education be available to all students. Evidence on these 'universal' programmes were considered in chapter 3. In this chapter, targeted programmes for problem substance use are examined following a consideration of risk factors associated with such behaviour.

### Problem Drug Use

In considering the factors associated with problem drug use, a number of considerations are worth mentioning.

Firstly, there is evidence that the probability of a young person developing problems increases directly with the number of risk factors that they experience. In other words, while children may be resilient enough to withstand one influence, if they experience several negative influences, their chances of developing problems increase substantially.

Secondly, there is evidence that many risk factors co-vary with each other so that if a child experiences one problem, there is a higher probability that they will encounter others. For example, parental substance use may be associated with poor socialisation practices and family conflict. Similarly, family poverty may lead to children not being prepared for school, to home-school discontinuity which in turn leads to school failure. The result is that the probability of children developing serious problems with substances is greatly enhanced by the knock-on effects from these chain of events.

Thirdly, many of the major influences in problem substance use, have their origin in socio-economic deprivation. For example, while surveys of school-going populations show either no relationship between life-time use of cannabis and social background as measured by parental level of education or at most a very modest relationship (Hibell et al., 1997, Parker et al., 1994), this is not the case with problem use.

In terms of distinctions that have been made regarding different types of programmes, it may be useful to draw a distinction between universal programmes (such as those reviewed in chapter 1) which are aimed at reaching the general population (like all students in a school) and selective programmes which target groups at risk in subsets of the general population (Sloboda & David, 1997). While there is no widely accepted terminology, it could be said that these different programmes correspond broadly to the concepts of primary and secondary prevention (Springer & Uhl, 1998).

## Profile of People in Treatment and Garda Studies of Drug Users

While the profile of people in treatment may not be representative of people with problems with drugs, the consistency in the demographic pattern underlines the extent of the association between drug misuse and social/educational disadvantage. What is most striking about this picture is the extent to which problem drug users share four characteristics, viz, being young, unemployed, having left school at an early age and living in an economically disadvantaged area (National Drug Treatment Reporting System).

The review by O'Higgins (1997) on behalf of the Combat Poverty Agency concluded that while there was a dearth of precise information on the social background of drug users and the association with poverty, it is clear that the highest level of opiate use occurs in areas of Dublin that would be regarded as deprived. It is of particular interest also to note that the majority of people who are being treated for drug abuse have high unemployment and poor education levels.

It is interesting to note the association between early school leaving and problem drug use. This is particularly important since early school leaving is associated with a range of outcomes to do with educational failure including literacy problems, no qualifications and a decreased likelihood of returning to further or adult education (Kellaghan et al, 1995). Interestingly the percentage of people seeking drug treatment who are early school leavers (leaving school at compulsory leaving age or under) has remained quite stable at around 45-50% over the last five years, despite the major efforts that have been made to increase the percentage of the age-cohort who complete the Leaving Certificate cycle. This pattern is one of the most convincing illustrations of the association between educational disadvantage and problem drug use.

There is also evidence of a link between deprivation and drug use in the study of the Garda Research Unit (Keogh, 1997). This work had its origins in the speculation concerning the percentage of crime in the Dublin area that is attributable to drug problems. From the Garda records, over 4,100 people were identified and a sample of just under 10% of these were interviewed for the study. All of these were involved in opiate use and were known to the Gardaí, normally because of criminal activity.

What is particularly interesting is the level of economic deprivation and educational disadvantage that is evident from this study. More than one-third had left school before the age of official school leaving age and the vast majority had left school without any formal qualifications. Just 84% of the respondents were unemployed.

In support of the thesis of a link between drug use and other forms of anti-social behaviour, it is interesting that for about half of the group, drug use lead to crime while the other half had some involvement in crime before they were involved with drugs.

treatment

A broadly similar point emerges regarding the association between social exclusion and drug use, evident in the study of drug users in prison (Dillon, 2001). This admittedly small-scale study showed that initiation to drug use in prison was rare. The vast majority had become involved with drugs before they were committed to prison. This suggests that some common factors gave rise to the criminality and to drug use, rather than prison per se being a causal influence.

### Family Influences and High-Risk

A large body of evidence now testifies to the particular importance of family influences in problem drug use. These are found in the evidence on the relative influence of peers vs. family, studies suggesting the significance of the family as a major influence in resilience and the evidence indicating the importance of a myriad of family risk-factors in problem use.

For two decades peer influences have been considered to be a major influence in problem drug use. This was largely based on the finding of a strong association between use by peers and reported use. More recently models (such as those considered in chapter 1) have drawn distinctions between distal influences and proximal influences and while not denying the importance of peers in the final link in the causal chain there is considerable evidence that family influences play an important role in creating conditions where association with deviant peers begins.

Kumpher & Alvarado (1995) review a substantial body of evidence showing that parents play an important role particularly in parental substance misuse. They also show that parental influence is substantial throughout childhood and adolescence whereas peer factors become important at certain times, especially around early adolescence.

One theme that does emerge in the literature on family effects is that family process is much more important than family structure in the development of deviant behaviour in general and also in relation to substance use (ACMD, 1998, Wells & Rankin, 1991). In others the fact of living in a single parent family or a reconstituted family is less significant than family processes e.g. conflict between parents, absence of affection or parental supervision. In other words, variables like parental warmth, affection and consistency in supervision which are known to be important parameters of effective parenting are also major influences in the development of substance misuse.

### Interventions

It is clear from the review of risk factors that most of the influences that have been identified as major risk factors in problem drug use are the same as those for school failure, anti-social behaviour and problems associated with poverty. For this reason, while interventions have targeted particular outcomes (substance misuse, school performance, social behaviour), any successful intervention is very likely to have positive consequences for other features of development whether these are the primary target or not.



## Family Support Services: Irish Research

A review by McKeown (2000) divides family support services into the following broad categories in the Irish context: (i) therapeutic work, (ii) parent education programmes, (iii) home based parent and family support programmes, (iv) educational interventions, (v) youth work and (vi) community interventions.

McKeown's review of these interventions is generally optimistic. He concludes that family therapy approaches have considerable promise provided the intervention is tailored to suit the family definition of need and that it restores faith in the family's capacity to solve its own problems. He is also positive about parent education problems but notes that parent education cannot be a panacea since parenting is rarely the only problem besetting vulnerable families. He also notes the dearth of appropriate materials for parents with low levels of literacy. With regard to home-based parent and family support programmes, the conclusion emerges that they can be effective but perhaps less so in the case of older children or those with severe psycho-social problems or where families have multiple and long lasting problems or where the family have lost confidence in their ability to deal with adversity.

McKeown's publication also summarises some evidence regarding the effectiveness of educational interventions. There is perhaps more evidence on this point than on most other types of intervention since many of these (Home-School Community Programmes, Early Start and Breaking the Cycle) have been the subject of evaluation by the Educational Research Centre (Kellaghan et al., 1995). Many of these evaluations show considerable promise and indicate that success is linked to the quality and intensity of the intervention and the level of involvement of parents in the project.

One of the points made by McKeown is that despite their importance, there have been few high quality evaluations of youth work interventions or of community interventions. By youth work activities it is meant a range of sport, recreation, and personal development activities. Community development refers to groups and organisations working in disadvantaged communities to develop collective strategies on common issues such as housing and local services.

## Family Support Services: International Research

Despite the general pessimism regarding the effects of family interventions on children's intellectual and social development in the seventies (Kellaghan et al. 1995), there is evidence of a number of fairly spectacular successes resulting from early interventions. The High/Scope educational project is one of the most widely cited. This involved a high quality educational programme together with active involvement of mothers when children were three to four years old. The longitudinal outcomes indicated that compared to controls, children in the experimental group had better achievement scores and higher school involvement. Furthermore, the project resulted in improvement in anti-social behaviour as indicated by fewer charges and for less serious crimes. The estimate was that the programme had reduced the cost of delinquency, crime and substance misuse by about \$2,400 per child (Barnett & Escobar, 1990).

One view of these outcomes is that parents became better socialisers of their children, which in turn resulted in greater school readiness which in turn resulted in a greater commitment to school followed by better academic performance in later grades. This in turn resulted in positive outcomes in social behaviour including reductions in substance misuse. This is sometimes referred to as the 'snowball' interpretation (Zigler et al., 1992).

While the High/Scope project is one of the most widely cited, there are other examples of successes with family interventions. The Houston Parent Child Development Centre programme (PCDC) focused on reducing behaviour problems among school age children and promoting mental health in participating families. Each year between 1970 and 1977 about 100 low income families were randomly assigned to an experimental or control group for a two year intervention. The focus was on mother-child interaction in the family setting including giving advice on coping with stress, creating a stimulating home environment, nursery school attendance and homemaker classes for parents. In total there were about 550 hours of family involvement.

The results of the follow up studies were very positive (Zigler et al, 1992). Five years later into the project, children showed fewer aggressive, acting out behaviours compared to the control group and were less hostile and considerate than the control group. From the present perspective, there was a considerable reduction in the behaviours and risk factors that are associated with problem substance use.

There is also considerable evidence that family-based interventions with older, at-risk youth may yield much better results than other efforts at intervention (Alexander et al., 2000). It has been shown that family based treatment in which the intervention is individualised to living units as they exist in the natural environment have produced greater success than other treatments with regard to involvement and actual substance-use reduction.

There is also evidence that such 'treatments' for adolescents manifesting problem behaviours may change the maladaptive family processes surrounding dysfunctional youth and in turn result in changes in risk factors for siblings who are not yet behaving problematically. In other words, family based interventions may operate simultaneously as a treatment and as a primary prevention effort.

### Targeted Programmes of the Local Drugs Task Forces in Ireland

More than 220 projects (including treatment, rehabilitation as well as prevention) have been supported through the Local Drugs Task Force (LDTF) initiative. An evaluation of the background, aims and implementation of most of these projects has been published (Ruddle et al., 2001) and a similar evaluation of other projects has been completed (NDST, unpublished).

It is interesting that over half of the project undertaken by the LDTFs are broadly in the 'education and prevention' area while another 7% provided service in the treatment and rehabilitation fields as well as in

education/prevention (Ruddle et al. 2001) The most important principles driving the projects are, according to this report, being needs driven, involving the local community, and involving partnership between the various agencies involved.

With regard to the actual focus of LDTF projects, a number of features are evident. Firstly, a great many focus on educational achievement on the grounds that school failure and early school leaving are a major contributory factor in drug misuse. An example of such a project is the After Schools Education Support Programme in the Dublin North Inner City, which targets 7-9 year olds and includes such features as supervision of homework, computer training, outdoor pursuits and adventure holidays. An important feature of the programme is a focus on inter-generational effects. Thus, it involves adults from the locality as trainers and assistants so that the project has a wide community base.

The centrality of parenting is a second major theme in Task Force projects and this is emphasised in the Parent-to-Parent programme of Dublin South Inner City Drugs Task Force. This programme tries to equip parents to bring up their children in a drug free atmosphere, to recognise drug problems in children and to reach as many parents as possible in an on-going 'self-help' basis.

A third feature of many Task Force programmes is that they try to make people aware not only of the dangers of drugs but also of the services that are available. The public information campaign of the Ballymun Task Force is an example of this approach. This stresses the need to make local people aware of the supports and services that are available to active drug misusers in the area. In addition there were events and activities that served to inform local people about the causes and consequences of drug misuse, as well as informing local people about the activities of the Drugs Task Force.

Fourthly, an interest in alternatives is strongly emphasised in many of the Task Force projects. The CEOL project in Ballyfermot arose from an awareness of the lack of music education in the area and the fact that the area had a musical history which was in danger of being lost. This project delivers music classes and workshops, field-trips to music centres as well as public concerts.

Finally, the community dimension is a hallmark of many of the projects organised by the Local Drugs Task Force groups. Thus, Finglas/Cabra Drugs Task Force has organised a community development resource fund to assist with a variety of activities in the community including summer projects, drop-in services and assisting youth groups. At a broader level, the COMMUNITY ADDICTION STUDIES project in Tallaght is aimed at people involved in community work in the area, particularly those in drug prevention and education. It focuses not only sharing knowledge of the extent and nature of drug taking but also tries to develop the concept of community education in a way that is relevant to the experience of the participants.

## Effective vs. Ineffective Programmes

A crucial question concerns the factors that differentiate between those programmes that are effective with families and those that are not. A number of reviews of this area converge in suggesting that the following features differentiate between effective interventions and those that are not quite so effective (Ramey & Ramey, 1998; Kumpher & Kaftarian, 2001).

1. *Development timing is crucial.* Interventions that begin early and continue afford the greater and longer lasting benefits to the participants than those that begin later and do not last as long. Interestingly there is little evidence of a 'critical period' such that the intervention provided after a certain age cannot be beneficial.
2. *Programme Intensity is crucial.* The evidence strongly suggests that programmes that are more intensive in the sense that they have more hours/weeks/years produce larger and more positive effects than those with less intensive intervention. It is of interest that the corollary of this is also true, that is, that families who participate the most actively and regularly in an intervention are the ones who show the greatest developmental progress.
3. *Direct experiences are critical.* The indications are that children who receive direct educational or other relevant experiences show larger and more enduring benefits than those in which there is a complete reliance on intermediary routes to change children's behaviour. Indeed it would seem that the best outcomes come about when parents learn new ways to interact with their children and where they receive feedback on the effectiveness of this interaction.
4. *Breadth and flexibility are important.* In particular interventions that are most successful offer a broad range of services. These will often include a range of features as well as attending to educational needs including practical assistance with family needs, parent services and training, and assistance with regard to health and social services.
5. *Effects will diminish unless there is adequate environmental maintenance.* One of the earliest findings with regard to many interventions was that there were major cognitive gains only to find that these 'washed out' over the school years. However, we should certainly be aware that no view of development suggests that positive early experiences are sufficient to ensure that children will perform well throughout their lives. The evidence on this point comes from studies that show that supports during transitions to school greatly enhance the effectiveness of an intervention in the early years.

## Supply Reduction

It is beyond the scope of this paper to go into detail on the issue of supply reduction and on ways in which interventions directed at drugs markets should be conducted. Moreover there is an important effect of drug markets on the beliefs regarding the acceptability of drugs in a community. As has been noted 'Not to take action against blatant dealing...must have a symbolic importance that should be disregarded. It suggests a 'don't care' attitude which can only affect the climate of beliefs adversely' (ACMD, 1998, p. 76).

In Ireland, and particularly in the Dublin area a number of Garda Divisions have dedicated drug units. Some of these were created earlier than others and, depending on local circumstances, the personnel assigned varies from one local unit to another. The research by O'Driscoll (2000) estimated that in January 1999 a total of 116 Gardai in the Dublin region were employed in drug policing at the local level. In Store St. which includes areas policed by Store St., Fitzgibbon St., Mountjoy and Bridewell Stations, there were 17 members in total (1 Inspector, two Sergeants and 14 Gardai).

A particularly relevant initiative was operation Dóchas which began in 1996. The aim of the Dochas initiative was to increase Garda presence at local level and to provide assistance and support to local communities and to contribute to a co-ordinated multi-agency approach to the problem of drug dependence. As noted in the Garda Annual report, the initiative required significant financial resources and has been credited with reductions in reported crime in the Dublin region (Garda Síochana Annual report 1997).

ive



# chapter 6:

## Conclusions and Recommendations

# chapter 6:

## Conclusions and Recommendations

### Context

The recommendations put forward below were guided not only by the themes emerging from the literature but also by recent policy statements relevant to drugs and to related issues of deprivation and service provision. Reference was made in the introduction to the recently published National Drugs Strategy Building on Experience (2001). As noted in the introduction, this statement recognises the extent to which drug prevention is related to other social and educational problems and accordingly proposes to link drug specific interventions with interventions in related areas such as young crime prevention and mental health promotion strategies, employment, education and training initiatives.

Besides this policy statement, some other related evaluations/policy statements are also of particular relevance and form an important part of the context of the recommendations. They include the recently published report of the Integrated Services Process (ISP, 2001). This pilot initiative was established by the Government to develop greater co-ordination and integration between state service provision within disadvantaged/socially excluded urban areas. In the North Inner City Pilot Programme, structures were developed within the ISP context to address major priorities to do with the following: community participation, information provision, improving access to and take up of state services within the local area, facilities for children and families and education provision. The final report on the project makes a number of recommendations for the future development of integrated initiatives including ways of ensuring effective community representation, as well as ways of enabling statutory bodies to participate fully.

A number of other policy statements are also relevant. The White paper on Early Childhood Education 'Ready to Learn' (1999) is concerned with children from birth to age six years and attempts to cover the whole spectrum of educational needs including the development of young children in the home, supporting parents and additional measures for the priority target group, children from an educationally disadvantaged background. More generally the National Children's Strategy Our Children – Their Lives (2000) in discussing the supports and services to promote development, suggest a need to re-orientate supports so that they provide a strong community base, emphasise prevention and early intervention and are integrated in ways that make such services easily accessible.

All of these and several other Government statements of policy have three elements in common. The first is the recognition of the association between one social problem and another, specifically in this case, the link between drugs and other consequences of deprivation. The second and related focus has to do with targeting. There are at least two dimensions to targeting, one of which has to do with a particular geographical area based on the recognition that social and educational disadvantage is frequently found (at least in urban areas) in particular locations. The other element of targeting has to do with childhood and the need for early and appropriate interventions. The third element is the need for collaboration



between the various state agencies. To quote the Ministerial Task Force (1996), the 'Drugs problem is what the Strategic Management Initiative in the Public Services describes as a cross-cutting issue which cannot be dealt with by any one Department....if the programme and services they provide are to be delivered in an effective efficient manner, it is absolutely essential that practical and workable arrangements be put in place to ensure a coherent co-ordinated approach' (Ministerial Task Force, 1996)

However, a problem remains in 'taking a step from rhetoric to the practice of truly joint systems approaches for the prevention of drug misuse' (McCann, 1996). A number of suggestions as to how this might be done have been set up out in the Urrus Conference (1996) and will be taken up in the recommendations below.

The conclusions and recommendations that are set out below are aimed especially at policies and practices related to prevention, rather than the many issues in research on which the conclusions are based. In setting out the conclusions, the more general and broad policy recommendations are set first (A) followed by recommendations concerning the most serious drug problems (B), recommendations regarding other drug problems (C) and finally recommendations regarding further research (D) .

### **(A) Recommendations – General and broad policy**

- A1. There is no single drug problem; rather there are a variety of different problems each of which requires a somewhat different approach. Some features of drug problems have a great deal in common with other social problems such as deprivation and poverty, while others have their origin in sensation seeking and curiosity. It is recommended therefore, that as part of a differentiated approach to drug prevention, there is a need to have priorities, to focus on more serious problems with more dangerous substances.
- A2. It is clear from the evidence summarised here that the causes of drug misuse are multi-faceted and are at several levels. Most attention has been given to those at the immediate level of influence including family and community influences. However, these in turn are influenced by broad socio-political, economic and cultural factors. In a comprehensive approach to drug prevention, all of these levels need to be considered.
- A3. A balanced approach between demand reduction based on principles shown to be most effective and supply reduction is recommended. It is important to draw attention to the symbolic value of supply reduction measures in influencing the climate regarding the acceptability of the use of particular substances.
- A4. It is recommended that drug prevention policies take into account the place of alcohol, tobacco and solvents in the total picture. Ignoring the relationship between legal and illegal drug use is likely to result in ineffective initiatives.

On the basis of the evidence considered here, there are grounds for maintaining a distinction between prevention efforts aimed at reducing the experimental or occasional use of cannabis that is widespread among young people of all backgrounds and efforts focused on preventing problem-use of other illegal substances that are particularly associated with social, economic and educational disadvantage/deprivation. The strong indications are that they require different strategies. The next set of recommendations are concerned with the serious drug problems associated with deprivation.

### **(B) Recommendations – Serious drug problems**

- B1. The evidence reviewed indicated that problem drug use is particularly likely to occur in the context of a variety of other factors involving social and educational disadvantage/deprivation. This may account for the association between anti-social behaviour, school failure, economic problems and problem drug use. For these reasons it is recommended that efforts to prevent problem drug use should in the first place, tackle the social origins of the causes, viz disadvantage and social exclusion. There is also a need to raise public awareness of the importance of deprivation as a cause of the most damaging forms of drug misuse as a prelude to widespread acceptance of the necessity for the major resources that will be needed to deal with these problems.
- B2. It is recommended that targeted initiatives to tackle the social origins of drug problems should be comprehensive i.e. involve inter-agency co-operation and have community involvement. Particular attention should be given to the structural planning of inter-agency co-operation on a scale and intensity that has not been evident in many interventions. It is essential that there be structural changes in all Government Departments and especially in the Department of Education and Science to facilitate the multi-agency approach.
- B3. There is agreement that community involvement is a critical feature for the success of interventions to deal with the causes of serious drug problems. To enable communities to make this contribution, it is recommended that research be carried out on what initiatives and approaches are most successful and what supports are needed.
- B4. Early school leaving is a critical event in involvement with dangerous drugs. In tackling the drug problems it is recommended that prevention of early school leaving should be at the core of intervention. Attention should also be given to how life and employment skills can contribute.
- B5. In devising intervention attention should be given to the following: (i) the duration and developmental timing of the intervention, (ii) The intensity of the programme, (iii) the need for direct experiences, (iv) the breadth and flexibility of the programme, and (v) the need for adequate environmental maintenance
- B6. It is recommended that drug prevention becomes a central feature of initiatives to address Health Inequalities in the context of the National Anti-Poverty Strategy.

There is also a need to integrate programmes that attempt to address social exclusion, especially those that focus on school (Breaking the Cycle) and on families (Springboard).

- B7. The evidence considered here draws attention to the importance of vulnerable families in drug misuse. We recommend working pro-actively with such families in order to prevent their children's drug misuse.

As well as the targeted programmes to deal with the causes of the most damaging forms of drug misuse, there is also a need for broadly based programmes focusing on the experimental drug use by young people from all social backgrounds. Overall, the literature points to valuable guidelines for implementing programmes of a kind that are likely to make a valuable contribution to a concerted effort to deal with the drugs problem.

### **(C) Recommendations – Other drug problems**

- C1. The evidence considered here leads to the conclusion that fearful messages are not appropriate in prevention programmes including classroom-based programmes. It is also recommended that factual information continue to have a place in prevention in the context of other features. It may seem plausible to have experts warn young people of the 'real facts' of the dangers of drug use, whether legal or illegal. However, the strongest conclusion emerging from the literature is that such approaches are ineffective. Instead there should be a continuation of approaches that emphasise personal and social development, stressing social skills and decision-making. In particular, school programmes should ensure that children are actively involved rather than merely passive recipients of information.
- C2. The approaches to prevention evident in Irish schools have avoided the most controversial features of other programmes (e.g. DARE). If nothing else the existing programmes in Irish schools can be defended on educational grounds. They have a number of features that are especially valuable. Firstly, they focus on both legal and illegal drugs and since the evidence indicates that there is a problem with both categories of drugs, it makes sense to continue with this practice. Secondly, the move to integrate these programmes within Social Personal and Health Education is to be welcomed. This approach is more likely to result in them becoming a core part of the curriculum and a greater probability of the development of the methodologies that have come to be particularly associated with prevention (e.g. Circle Time). Thirdly, while acknowledging the contribution of other agencies to school programmes, it is important that classroom teachers have the central role in the delivery of the programme, while taking into account what happens locally. There would seem to be merit in the recommendation contained in the National Drugs Strategy concerning the implementation of these programmes in schools initially in each Task Force area.

- C3. There is considerable evidence that school programmes on their own are unlikely to have a major impact without community backing. There is a need for an investigation into the forms of community support that would be most appropriate for school programmes taking into account the views of parents and other interested parties. Attention is drawn to two recommendations made by Mayock (2000): (i) There is a need for ‘..alternative and innovative strategies to reach marginalised young people who may have left school and (ii) There is a need to tailor school based intervention programmes to meet the needs of specific subgroups within the population.’
- C4. Within school programmes, it is recommended that while the regular classroom teacher should take the primary role in drug prevention education, there may be appropriate input from others including professionals as well as people from the local community with relevant expertise.
- C5. Schools should be encouraged to develop policies with regard to drug prevention. Such policies should include not only illegal substances, they may be more effective if they involve groups of schools and are holistic in nature. In line with the recommendations of the National Drugs Strategy (2001), the Department of Education and Science in conjunction with the Health Boards, should have a central role in the development of policy.
- C6. It became clear in the review of the evidence that many school programmes fail because they are never implemented. For these reasons a regular monitoring of prevention programmes to ensure their continuation beyond the pilot phase, is recommended.
- C7. The evidence suggests that the mass media have until now, had a relatively limited role in prevention. It would seem that there is very little value in drawing attention to the dangers of drug use in media promotions since, they may only convince those people who are already disposed to believe the message. Furthermore, they can create an impression that ‘something is happening’ in relation to prevention. There is a need to explore new ways of using the mass media more effectively, in the context of the statement of the National Drugs Strategy. It is recommended that journalists have access to authoritative information on drug problems in general and on prevention specifically. The NACD, the Drug Misuse Research Division of the Health Research Board, the National Documentation Centre and the Health Promotion Unit of the Department of Health and Children may have a particular role in this regard.

There is a need for research on several major issues to do with prevention. It would seem that the following deserve priority:

#### **(D) Recommendations – Further research**

- D1. There should be an examination of the extent of implementation of existing school programmes/strategies.
- D2. There should be a comprehensive evaluation of a representative number of prevention programmes that have been funded by the Task Forces and are now being 'mainstreamed'. The NACD should collaborate with the NDST on this issue.
- D3. There is a need for the development and evaluation of an initiative that recognises the link between drug problems and other problems, which, draws on expertise, and resources of schools, family support systems, health workers, and Gardaí.
- D4. There is a need for research that examines how the mass media might become an effective tool in relation to drug prevention.

# Appendix

## **NACD Membership**

### *Chairperson*

Dr Des Corrigan, Head of School of Pharmacy, Trinity College

### *Vice Chairperson*

Dr Mary Ellen McCann, Voluntary Sector, Ballymun Youth Action Project

### *Members*

Ms Anna Quigley, Dublin Citywide Drugs Crisis Campaign

Ms Kathleen Stack, Drug Strategy Unit, Department Tourism, Sport & Recreation

Dr Mark Morgan, St Patrick's College, Dublin

Ms Mary Jackson, Department of Health and Children

Detective Superintendent Finbarr O'Brien, Garda National Drug Unit

Dr Hamish Sinclair, Drug Misuse Research Division, Health Research Board

Mr Willie Collins, Southern Health Board

Dr Joe Barry, Eastern Regional Health Authority

Mr Billy Byrne, Department of Justice, Equality and Law Reform

Mr Gary Broderick, Voluntary Sector, Ana Liffey Project

Fr Liam O'Brien, Community Drug Treatment Sector

Dr Eamon Keenan, Consultant Psychiatrist, Eastern Regional Health Authority

Dr Derval Howley, National Drug Strategy Team

Dr Louis O'Carroll, Eastern Regional Health Authority

Dr Shane Butler, Trinity College, Dublin

Mr David Moloney, Department of Health and Children

Mr Jimmy Connolly, Institute of Alcohol and Addiction Counsellors

Ms Ruby Morrow, Department of Education and Science

## Prevention Sub Committee

### *Chairperson:*

Ms Ruby Morrow, Dept. Education and Science

### *Members:*

Mr Tom Gilson, a community representative nominated by Citywide

Dr Mark Morgan, St Patrick's College, Dublin

Dr Louis O'Carroll, Eastern Regional Health Authority

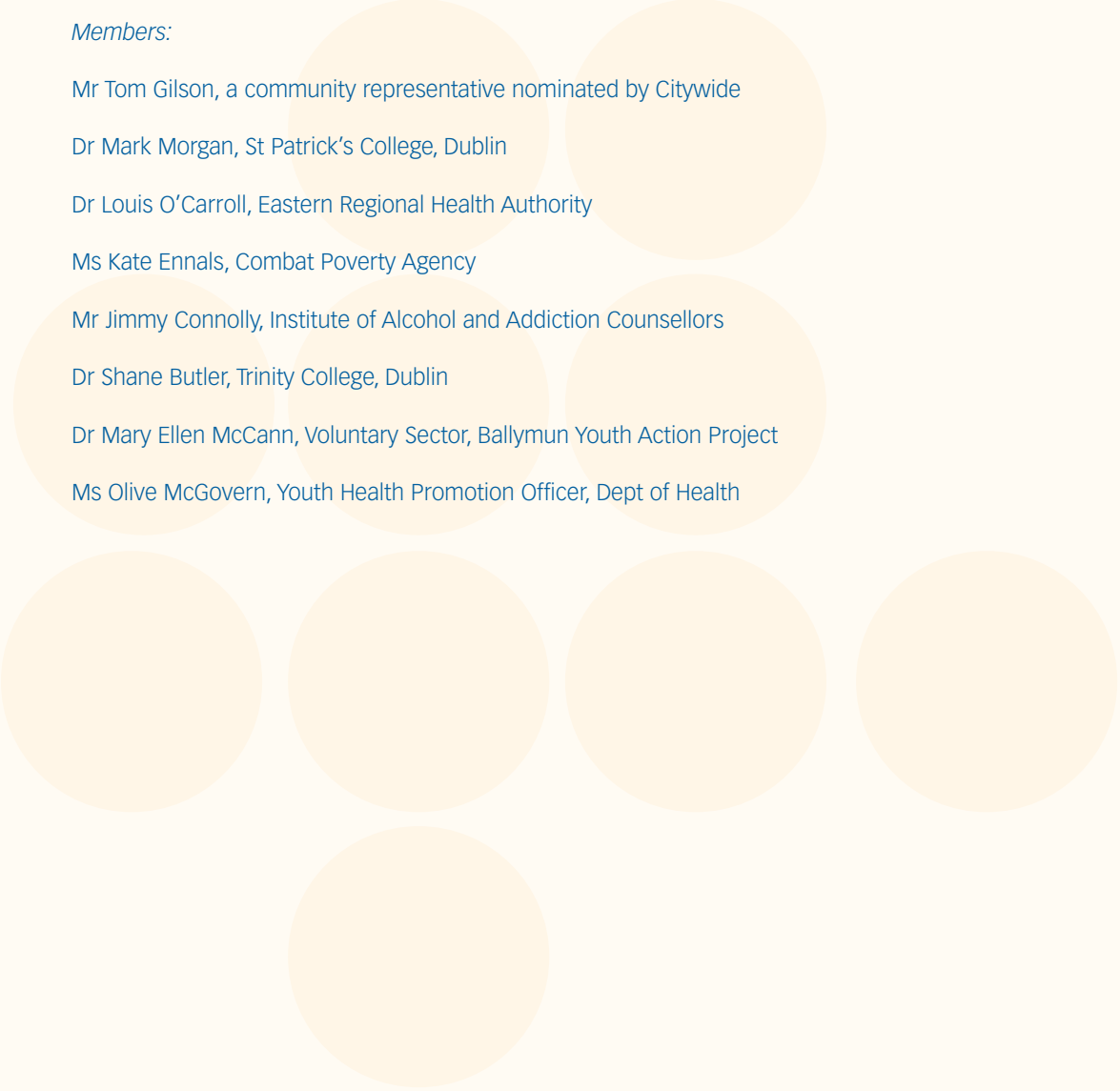
Ms Kate Ennals, Combat Poverty Agency

Mr Jimmy Connolly, Institute of Alcohol and Addiction Counsellors

Dr Shane Butler, Trinity College, Dublin

Dr Mary Ellen McCann, Voluntary Sector, Ballymun Youth Action Project

Ms Olive McGovern, Youth Health Promotion Officer, Dept of Health



# References

- Advisory Council on the Misuse of Drugs (1998). *Drug misuse and the environment*. London: The Stationery Office.
- Alexander, J.F., Robbins, M.S., & Sexton, T.L. (2000). Family-based interventions with older, at-risk youth: From promise to proof to practice. *The Journal of Primary Prevention, 21*, 185-205.
- Bailey, S., & Hubbard, R.L. (1990). Developmental variation in the context of marijuana initiation among adolescents. *Journal of Health and Social Behaviour, 31*, 58-70.
- Baklien, B. (1993). Two-step drug education in Norway. *Journal of Drug Education, 23*, 171-182.
- Bandura, A. (1997). *Self-Efficacy: The exercise of control*. New York: Freeman.
- Barnett, W.S., & Escobar, C.M. (1990). Economic costs and effects of early interventions. In: *S.J. Meissls & J.P. Shonkoff (Eds.) Handbook of early childhood intervention (pp560-582)*. New York: Cambridge University Press.
- Baron, R.A., & Byrne, D. (1997). *Social Psychology (8th Ed.)*. New York: Allyn and Bacon.
- Battistich, V., Schaps, E., Watson, M., & Solomon, D. (1996). Prevention: Effects of the Child Development Project: Early findings from an ongoing multi-site demonstration trial. *Journal of Adolescent Research, 11*, 12-35.
- Benard, B. (1990). *Fostering resilience in kids: Protective factors in family, school and community*. San Francisco: Western Centre for Drug Free Schools and Communities.
- Best, J.A., Thomson, S.J., Santi, S., Smith, E.A., & Brown, K.S. (1989). Preventing cigarette smoking among school children. *American Review of Public Health, 9*, 161- 201.
- Botvin, G. J. & Botvin, E. M. (1992). Adolescent tobacco, alcohol, and drug abuse: Prevention strategies, empirical findings, and assessment issues. *Developmental and Behavioral Pediatrics, 13*, 290-301.
- Botvin, G.J., Baker, E., Dusenbury, L., Botvin, E.M., & Diaz, T. (1995). Long-term follow-up results of a randomised drug use prevention trial in a white middle class population. *Journal of the American Medical Association, 273*, 1106-1112.
- Brinkley, A., Fitzgerald, M., & Greene, S. (1999). *Substance use in early adolescence: A study of rates and patterns of substance use among pupils in Dublin*. Dublin: Easter Health Board.
- Brook, J.S., Brook, D.W., Gordon, A.S., Whiteman, M., & Cohen, P. (1990). The psychosocial etiology of adolescent drug use: A family interactional approach. *Social and General Psychology Monographs, 116*, 111-267.
- Brook, J.S., Whiteman, M., & Gordon, A.S. (1983). States of drug use in adolescence: Personality, peer and family correlates. *Developmental Psychology, 19*, 269-277.
- Brown, J. H. & Horowitz, J. E. (1993). Deviance and deviants. Why adolescent substance use programmes do not work. *Evaluation Review, 17*, 529-555.
- Brown, J. H. & Kreft, I. G. G. (1998). Zero effects of drug prevention programmes: Issues and solutions. *Evaluation Review, 22*, 3-14.
- Bruvold, W.H. (1993). A meta-analysis of adolescent smoking prevention programmes. *American Journal of Public Health, 83*, 872-880.



- Bryan, A., Moran, R., Farrell, E., & O'Brien, M. (2000). *Drug related knowledge, attitudes and beliefs in Ireland: Report of a nation-wide study*. Dublin: Health Research Board.
- Butler, S. (1991). Drug problems and drug policy in Ireland: A quarter of a century reviewed. *Administration*, 31, 210- 233.
- Butler, S. (1994). Alcohol and drug education in Ireland: Aims, methods and difficulties. *OIDEAS (Journal of the Department of Education and Science)*, 42, 125 – 140.
- Butler, S. (1997). Review Essay: The war on drugs: Reports on the Irish front. *The Economic and Social Review*, 28, 157- 175.
- Calafat, A., et al. (2001). *Risk and control in the recreational drug culture: SONAR project*. Palma de Mallorca: IREFREA.
- Charlton, A. (2000). Why are school-based youth centred smoking programmes not as effective as we hoped? *International Journal of Health Promotion and Education*, 38, 124-128.
- Centre for Health Promotion Studies, UCG (1995). *Lifeskills for Health Promotion: The evaluation of the North Western Health Board's Health Education Programmes*. Galway: Author.
- Coggans, N., & Watson, J. (1995). Drug Education, approaches, effectiveness and delivery. *Drugs: Education, Prevention and Policy*, Vol 2, 211-224.
- Cohen, D.A., & Linton, K.L.P. (1995). Parent participation in an adolescent drug abuse prevention programme. *Journal of Drug Education*, 25, 159-169.
- Combat Poverty Agency (1997). *Drugs, poverty and community development: Report of a conference for community development programme projects on community responses to drugs issues*. Dublin: Author.
- Cox, G. (2001). Overview of available information on the prevalence of the use of opiate and non-opiate substances in Ireland. Report (in preparation) for the National Advisory Committee on Drugs.
- Cullen, B. (2001). Community responses to drug problems in Dublin. 12th Annual Conference of European Society for Social Drug Research, Venice, November, 2001.
- Department of Education and Science (1999). *Primary School Curriculum*. Dublin: Government Publications
- Department of Health and Children (2000). *The National Children's Strategy; Our children – their lives*. Dublin: Government Publications.
- Dielman, T. E. (1995). School-based research on the prevention of adolescent alcohol use and misuse: Methodological issues and advances. In: G. M. Boyd, J. Howard, & R. A. Zucker (Eds.), *Alcohol problems among adolescents: Current directions in prevention research* (pp. 125-146). Hillsdale, NJ: Lawrence Erlbaum.
- Dillon, B. (2000). Poverty, drug use and policy: summary of evaluation findings. Paper presented at Combat Poverty Agency Conference. February 19th 2000.
- Dillon, L. (2001). *Drug use among prisoners: An exploratory study*. Dublin: Health Research Board.
- Dorn, N., & Murji, K. (1992). *Drug prevention: A review of the English language literature*. London: Institute for the Study of Drug Dependence.

- Dukes, R.L., Ullman, J.B., & Stein, J.A. (1996). Three-year follow-up of drug abuse resistance (DARE). *Evaluation Review, 20*, 49-66.
- Duignan, P., & Casswell, S. (1988). Evaluating community health programmes for health promotion: Problems illustrated by a New Zealand example. *Community Health Studies, 12*, 74-81.
- Ellickson, P.L. (1994). Getting and keeping schools and kids in evaluation studies. *Journal of Community Psychology, Special Issue, 102-116*.
- Elliott, D.S., Huizinga, D., & Ageton, S.S. (1985). Explaining delinquency and drug use. Beverly Hills, CA: Sage.
- ESRI (1997). Concerns of the general public in relation to Garda activities. Unpublished study
- First Report of the Ministerial Task Force on the Measures to Reduce the Demand for Drugs (1996). Dublin: Government Publications.
- Flynn, B.S., Worden, J.K., Seckler-Walker, R.H., Badger, G.J., & Geller, B.M. (1995). Cigarette smoking prevention effects of mass media and school interventions targeted to gender and age groups. *Journal of Health Education, 26*, 45-51.
- Foxcroft, D. R., Lister-Sharp, & Lowe, G. (1997). Alcohol misuse prevention for young people: A systematic review reveals methodological concerns and lack of reliable evidence of effectiveness. *Addiction, 92*, 531-537.
- Gallego, M.A. (2000). Evaluation and drug-prevention policy: The Galician plan on drugs. In: *Neaman, R. (Ed.) Evaluation: a key tool for improving drug prevention*. Lisbon: European Commission/EMCDDA.
- Gislason, T., Yngvadottir, A., & Benediksdottir, B. (1995). Alcohol consumption, smoking and drug use among Icelandic teenagers: A study into the effectiveness of the Skills for Adolescence Programme. *Drugs: Education, Prevention and Policy, 2*, 243-258.
- Gorman, D. M. (1996). Do school-based social skills training programmes prevent alcohol use among young people? *Addiction Research, 4*, 191-210.
- Grube, J.W. & Morgan, M. (1986). Smoking, drinking and other drug use among Dublin post-primary school pupils. Dublin: ESRI General Publications.
- Grube, J.W., & Morgan, M. (1990). Attitude-social support interactions: Contingent consistency effects in the prediction of adolescent smoking, drinking and drug use. *Social Psychology Quarterly, 53*, 329 - 339.
- Hafstad, A., Aaro, L., Engeland, A., Andersen, F., Langmark, F., & Stray-Pedersen, B. (1997). Provocative appeals in anti-smoking mass media campaigns targeting adolescents-the accumulated effects of multiple exposure. *Health Education Research: Theory and Practice, 12*, 227-236.
- Hansen, W. B. (1993). School-based alcohol prevention programmes. *Alcohol Health & Research World, 17*, 54-60.
- Hansen, W. B. & Graham, J. W. (1991). Preventing alcohol, marijuana, and cigarette use among adolescents: Peer pressure resistance training versus establishing conservative norms. *Preventive Medicine, 20*, 414-430.
- Hibell, B., Andersson, B., Alstrom, S., Balakireva, O., Bjarnasson, T., Kokkevi, A. & Morgan, M. (2001). *The 1999 ESPAD report: Alcohol and other drug use among students in 30 European countries*. Stockholm: CAN.
- Hawthorne, G. (2001). Drug Education: Myth and reality. *Drug and Alcohol Review, 20*, 111-119.

Hingson, R., McGovern, T., Howland, J., Heeren, T., Winter, M., & Zakocs, R. (1996). Reducing alcohol-impaired driving in Massachusetts: The Saving Lives Program. *American Journal of Public Health, 86*, 791-797.

Hurry J., & Lloyd, C. (1997). A follow up evaluation of project Charlie: A life-skills Education Programme for primary schools. London Home Office.

<http://www.reitox.emcdda.org>: Website for EDDRA projects.

Integrated Services Process (2001). *Final report of the integrated services process in North East Inner City Dublin*. Dublin: Author.

*Ireland's National Drugs Strategy, 2001- 2008* (2001). Dublin: Government Stationery Office.

Jessor, R., Donovan, J.E., & Costa, F.M. (1991). *Beyond adolescence: Problem behaviour and young adult development*. Cambridge: Cambridge University Press.

Kaplan, H.B., Martin, S., & Robbins, C. (1984). Pathways to adolescent drug use: Self-derogation, peer influence, weakening of social controls and early substance use. *Journal of Health and Social Behaviour, 25*, 270-289.

Kellaghan, T., Weir, S., O Uallachain, S., & Morgan, M. (1995). *Educational disadvantage in Ireland*. Dublin: Educational Research Centre.

Keogh, E. (1997). *Illicit drug use and related criminal activity in the Dublin Metropolitan Area*. Dublin: Garda Research Unit.

Kiely, E., & Egan, E. (2000). *Drug Education: A social and evaluative study*. Cork: Local Drugs Task Force.

Kumpher, K.L., Williams, M.K., & Baxley, (1997). *Drug abuse prevention for at-risk groups*. Rockville, MD: NIDA. (National Institute on Drug Abuse, US)

Kumpher, K.L., & Alvarado, R. (1995). Strengthening families to prevent drug use in multi-ethnic youth. In: *Botvin, G.B., Schinke, S., & Orlandi, M.A. (Eds). Drug abuse prevention with multi-ethnic youth*. London: Sage Publications.

Kumpher K.L. & Kaftarian, S.J. (2000). Bridging the gap between family-focused research and substance abuse prevention practice. *Journal of Primary Prevention, 21*, 169-183.

Letieri, D.J., Sayers, M., & Pearson, H.W. (1980). *Theories on drug use: Selected contemporary perspectives*. Rockville, MD: NIDA.

Leventhal, H., Watts, J.C., & Paguno, F. (1967). Effects of fear and instructions on how to cope with danger. *Journal of Personality and Social Psychology, 6*, 313-321.

Lloyd, C., Joyce, E., Hurry, J., & Ashton, M. (2000). The effectiveness of Primary School Drug Education, *Drugs: Education, Prevention and Society, Vol. 7*, pp. 109-126.

Lowden, K., & Powney, J. (2000). *Drug Education in Scottish Schools 1996-1999*. Edinburgh: Scottish Council for Research in Education

Loughran, H. (1999). Drugs policy in Ireland in the 1990s. In: S. Quinn et al., (Eds). *Contemporary Irish Social Policy*. Dublin: UCD Press.

- Lyons, M. (2000). Complexity of collaboration in a Government led multi-sectoral initiative. MBA dissertation; Michael Smurfit Graduate School of Business, UCD, Dublin.
- Mayock, P. (2000). *Choosers or losers? Influences on young people's choices about drugs in the Inner-City Dublin*. Dublin: Children's Research Centre, Trinity College.
- McCann, M.E. (1996). *Response to the Minister*. In: *Urrus Joint System Approaches for the Prevention of Drug Misuse*. Ballymun, Dublin: Author.
- McCann, M.E. (1997). Community Development and Drugs. In: *Combat Poverty Agency (Ed) Drugs, Poverty and Community Development: Report of a conference for community development programme projects on community responses to drugs issues*. Dublin: Author.
- McKeown, K. (2000). *Springboard: A guide to what works in family support services*. Dublin: Government Publications.
- Miller, D. (1998). *Alcohol and other drugs in criminal activity*. Templemore: Garda Research Unit
- Moran, R., & Pike, B. (2001). *National drugs strategy and structural mechanisms*. In: Moran, R., Dillon, L., O'Brien, M., Mayock, P., Farrell, E. with Pike, B. (Eds). A collection of papers on drug issues in Ireland. Dublin: Health Research Board.
- Moran, R., Dillon, L., O'Brien, M., Mayock, P., Farrell, E. with Pike, B. (2001). *A collection of papers on drug issues in Ireland*. Dublin: Health Research Board.
- Morgan, M. & Grube, J.W. (1991). Closeness and peer group influence. *British Journal of Social Psychology*, 30, 159 - 169.
- Morgan, M., Morrow, R., Sheehan, A.M. & Lillis, M. (1996). Prevention of substance misuse: Rationale and effectiveness of the programme 'On My Own Two Feet'. *OIDEAS: Journal of the Department of Education and Science*, 44, 5-26.
- Morgan, M. (1998). Evaluation of substance use prevention programmes: Implications for illicit substances. In: Springer, A., & Uhl, F. (Eds.) *Evaluation research in regard to primary prevention of drug abuse*. (pp. 91-135). Brussels: European Commission, Directorate-General Science, Research and Development.
- Morgan, M. (1998). *The substance misuse prevention programme: A formative evaluation*. Dublin: Department of Education and Science.
- Morgan, M., Hibell, B., Andersson, B., Bjarnason, T., Kokkevi, A., & Narusk, A. (1999). The ESPAD Study: Implications for prevention. *Drugs: Education, Prevention and Policy*, 6, 243-256.
- Morgan, M. (2000). Evaluation and drug prevention research: Implications of unsuccessful outcomes for programme design. In: Neaman, R. (Ed.) *Evaluation: a key tool for improving drug prevention*. Lisbon: European Commission/EMCDDA.
- Morgan, M. (2000). School and part-time work in Dublin: Survey, analysis and recommendations. *Dublin Employment Pact Policy paper*, 4, 1-40.
- Munro, G., Midford, R. (2001). Zero tolerance and drug education in Australian Schools. *Drug and Alcohol Review*, 20, 105-109.
- Norman, E., Turner, S., Zunz, S., & Stillson, K. (1997). Prevention programmes reviewed: What works? In: E. Norman (Ed.), *Drug free youth: A compendium for prevention specialists*. New York: Garland.

Nutbeam, D., Macaskill, P., Smith, C., Simpson, J.M., & Catford, J. (1993). Evaluation of two smoking education programmes under normal classroom conditions. *British Medical Journal*, 79, 1371-1376.

O'Driscoll, J. (2000). *Devising strategies for policing drug problems experienced at local level*. M.Sc., Thesis: Department of Social Studies, Trinity College, Dublin.

O'Higgins, K. (1998). *Review of literature on the links between poverty and drug abuse*. Dublin: Combat Poverty Agency.

Paglia, A., & Room R. (1999). Preventing substance use problems among youth: A literature review and recommendations. *The Journal of Primary Prevention*, 20, 3-50.

Parker, H., & Measham, F. (1994). Pick 'n' mix: changing patterns of illicit drug use among 1990s adolescents. *Drugs: Education, Prevention and Policy*, 1, 5 – 13.

Parker, H., Aldridge, J., & Measham, F. (1998). *Illegal leisure: The normalisation of adolescent recreational use*. London: Routledge.

Parkin, S., & McKeganey, N. (2000). The rise and rise of peer education approaches. *Drugs: Education, Prevention and Society*, Vol. 7, pp. 293-310.

Pentz, M. A., Dwyer, J. H., MacKinnon, D. P., Flay, B. R., Hansen, W. B., Wang, E. Y.I., Johnson, C. A. (1989). A multi-community trial for primary prevention of drug abuse. Effects on drug use prevalence. *Journal of the American Medical Association*, 261, 3259-3266.

Pentz, M.A., Trebow, E.A., Hansen, W.B., MacKinnon, D.P., Dwyer, J.H., Johnson, C.A., Flay, B.R., Daniels, S., & Cormack, C. (1990). Effects of programme implementation on adolescent drug use behaviour: The Midwestern Prevention Project (MPP). *Evaluation Review*, 14, 264-289.

Perry, C. L., Williams, C. L., Veblen-Mortenson, S., Toomey, T. L., Komro, K. A., Anstine, P. S., McGovern, P. G., Finnegan, J. R., Forster, J. L., Wagenaar, A. C., & Wolfson, M. (1996). Project Northland: Outcomes of a community-wide alcohol use prevention programme during early adolescence. *American Journal of Public Health*, 86, 956-965.

Petratis, J., Flay, B.R., & Miller, T.Q. (1995). Reviewing theories of adolescent substance use: Organising pieces in the puzzle. *Psychological Bulletin*, 117, 67-86.

Ramey, C.T., & Ramey, S.L. (1998). Early intervention and early experience. *American Psychologist*, 53, 109-120.

Rhodes, F., & Wolitski, R.J. (1990). Perceived effectiveness of fear appeals in AIDS education: Relationship to ethnicity, gender, age and group membership. *AIDS Education and Prevention*, 2, 1-11.

Rohrbach, L.A., Graham, J.W., & Hansen, W.B. (1993). Diffusion of a school-based substance abuse prevention programme: Predictors of programme implementation. *Preventive Medicine: An International Journal Devoted to Practice and Theory*, 22, 237-260.

Ruddle, H., Prizeman, G., Jaffro, G. (2001). *Evaluation of local drugs task force projects: Experiences and perceptions of planning and implementation*. Dublin: Government Publications.

Shedler, J., & Block, J. (1990). Adolescent drug use and psychological health. *American Psychologist*, 45, 612-630.

Sher, K.J. (1991). *Children of Alcoholics*. Chicago: University of Chicago Press.

- Shope, J. T., Copeland, L. A., Maharg, R., Dielman, T. E. (1996). Effectiveness of a high school alcohol misuse prevention program. *Alcoholism: Clinical and Experimental Research*, 20, 791-798.
- Shope, J. T., Copeland, L. A., Marcoux, B. C., & Kamp, M. E. (1996). Effectiveness of a school-based substance abuse prevention program. *Journal of Drug Education*, 26, 323-337.
- Skinner, E.R., & Slater, M.D. (1995). Family communication patterns, rebelliousness, and adolescent reactions to anti-drug PSAs (public service advertisements). *Journal of Drug Education*, 25, 343-355.
- Sloboda, A., & David, S.L. (1997). *Preventing drug use among children and adolescents: A research based guide*. Rockville, MD: National Institute of Drug Abuse.
- Springer, A., & Uhl, F. (1998). *Evaluation research in regard to primary prevention of drug abuse*. Brussels: European Communities.
- Stead, M. Machintosh, A.M.Eadie, D., & Hastings, G. (2001). Preventing adolescent drug use: The development, design and implementation of the first year of NE choices. *Drugs: Education, Prevention and Policy*, Vol. 8, pp, 151-175.
- Stuart, R.B. (1974). Teaching facts about drugs: Pushing or preventing. *Journal of Educational Psychology*, 66, 189-201.
- Tobler, N.S., & Stratton, H.H. (1997). Effectiveness of school-based drug prevention programmes: A meta-analysis of the research. *The Journal of Primary Prevention*, 18, 71-128.
- Uhl, F. (1998). Evaluation of primary prevention in the field of illicit drugs: Definitions, concepts and problems. In: Springer, A., & Uhl, F. (Eds). *Evaluation research in regard to primary prevention of drug abuse*. Brussels: European Communities.
- Urrus (1996). Joint system approaches for the prevention of drug misuse: Conference Report. Ballymun, Dublin: Author.
- Zigler, E., Taussig, C., & Black, K. (1992). Early childhood intervention: A promising preventative for juvenile delinquency. *American Psychologist*, 47, 997-1006.
- Wagenaar, A. C.; Murray, D. M.; Wolfson, M.; Forster, J. L.; Finnegan, J. R. (1994). Communities mobilising for change on alcohol: Design of a randomized community trail. *Journal of Community Psychology*, (CSAP Special Issue), 79-101.
- Wells, L.E., & Rankin, J.H. (1991). Families and delinquency: A meta-analysis of the impact of broken homes. *Social Problems*, 38, 71 – 93.
- White, D., & Pitts, M. (1997). *Health promotion with young people for the prevention of substance misuse*. London: Health Education Authority.
- Williams, C. L., Perry, C. L., Dudovitz, B., Veblen-Mortenson, S., Anstine, P. S., Komro, K. A., & Toomey, T. L. (1995). A home-based prevention programme for sixth-grade alcohol use: Results from Project Northland. *Journal of Primary Prevention*, vol. 16, pp. 125-147.
- Wright, J.D., & Pearl, L. (1995). Knowledge and experience of young people regarding drug misuse, 1969-94. *British Medical Journal*, 310, 20-24.

