ADDICTION RESEARCH CENTRE
TRINITY COLLEGE DUBLIN

SECOND ANNUAL CONFERENCE

DEBATING PUBLIC POLICIES ON DRUGS AND ALCOHOL!

Goldsmith Hall
Trinity College Dublin
Thursday, September 26th 2002

Conference Documents

CONFERENCE PROGRAMME

8.30 REGISTRATION

9.00 WELCOME AND INTRODUCTION
Barry Cullen, Director, Addiction Research Centre

9.15 SESSION ONE - ALCOHOL POLICY WITHIN A PUBLIC HEALTH MODEL
CHAIR: Dr. Ann Hope, National Alcohol Advisor

KEYNOTE PAPER
THE ROLE AND EFFECTIVENESS OF ALCOHOL POLICY AT THE LOCAL LEVEL: INTERNATIONAL EXPERIENCES
Dr Harold D Holder • Director and Senior Scientist, Prevention Research Center, Berkeley, California

RESPONSE PAPER 1
SOCIAL RESPONSIBILITY AND THE DRINKS INDUSTRY
Pat Barry, Guinness Group Sales

RESPONSE PAPER 2
How LOCAL IS LOCAL? - A REFLECTION ON RECENT IRISH ATTEMPTS TO CREATE ALCOHOL POLICY
Dr Shane Butler, Senior Lecturer in Social Work. Thnity College. Dublin

10.45 TEA/COFFEE

11.15 SESSION TWO - METHADONE MAINTENANCE AS AN INSTRUMENT OF PUBLIC POLICY
CHAIR Dr Ide Delargy, Ihsh College of General Practitioners

KEYNOTE PAPER
JUSTIFYING DRUG SUBSTITUTION THERAPIES: THE CASE OF METHADONE MAINTENANCE TREATMENT
Dr. Jeff Ward - Senior Lecturer, School of Psychology. Australian National University

RESPONSE PAPER 1
THE IRISH EXPERIENCE OF METHADONE MAINTENANCE TREATMENT
Dr Eamon Keenan - Consultant Psychiathst. South Westem Area Health Board and Thnity Court Dublin

RESPONSE PAPER 2
MAINTAINING ABSTINENCE AS THE TREATMENT OF FIRST RESORT
Stephen Rowen - Director, Rutland Centre

12.45 LUNCH - DINING HALL, TRINITY COLLEGE

14.30 SESSION THREE - THE RELATIONSHIP BETWEEN CRIME, DRUGS AND ALCOHOL PROBLEMS
CHAIR: Fergus McCabe, National Drug Strategy Team
KEYNOTE PAPER
CRIMINAL JUSTICE POLICY AND DRUG AND ALCOHOL PROBLEMS
Dr Eom O'Sullivan, Lecturer in Social Policy, Thnity College Dublin

RESPONSE PAPER 1
CRIMINAL LAW AND ADDICTION
Ivana Bacik, Lecturer in Law, Thnity College Dublin

RESPONSE PAPER 2
RETHINKING CRIMINAL JUSTICE

Dr Tim Murphy, Lecturer in Law, University College Cork

16.15 DISCUSSION AND CONCLUSION

17.00 END OF CONFERENCE

Addiction Research Centre, Trinity College Dublin
Second Annual Conference
DEBATING PUBLIC POLICIES ON DRUGS AND ALCOHOL!
Participant List

Alesbury	Ei m ear	NAHB, City Clinic.
Armstrong	Ruth	Midland Health Board
Bane	Seamus	Clare Youth Service
Barden	Tony	Drugs Co-Ordination Unit
Barry	Dr Joe	Dept. of Comm. Health & General Practice
Beirne	Fidelma	Mater Dei Counseling Centre
Beirns	Jennifer	Rotunda Hospital SW Dept
Bennett	John	FC Local Drug Task Force
Benson	Gerry	Probation +Wefare Service
Bergen	Sheila	Beaumont Hospital
Bissett	Fran	National Youth Federation
Bissett	Fran	National Youth Federation
Blanchfield	Jackie	St. Dominies Community Response Project
Blee	Niall	Northlands
Blee	Niall	Northlands, Shepherds Way. Dungiven Rd.
Bolger	Tracey	ISPCC
Breathnach	Mairin	Drug Treatment Centre
Breen	Liam	SWAHB
Breheny	Vincent	An Bord Altranais
Brennan	Eleanor	Dublin City Council
Bressan	Juliet	City Clinic and James St. Clinic
Browne	Peter	The Hanly Centre
Burkart	Mary	NTDA Coolamber
BurVe	Patricia	Project West COP
Burke	Tim	Garda Siochana,
Burstall	Taru	Hesed House, Outreach Family Centre, .
Butler	Elaine	Crosscare
Butler	Shane	Addiction Studies
Byrne (KCCP)	Declan	Kilbarrack Community Hall
Cahill	Breda	Aislinn Centre,
Campbell	Martina	Drug & Alcohol Strag. Team
Canning	Thomas	Northlands
Cantillon	John	SWAHB. Drug Treatment Centre
Carey	Edel	Duan Dara Detox Unit, Cherry Orchard Hospital.
Carlin	Tony	Probatioin & Welfare
Carolan	Fiona	Dublin Drug Court
Carr	Olivia	Drugs Eduation Co-ordinator
Carroll	Josephine	NAHB Barry Satelite Clinic
Carroll	Seamus	Dept of Justice, Equality & Law Reform
Carton	Niamh	North Clondalkin CDP
Casey	Brid	Clondalkin Drug Force
Casey	Liam	JLO, Gurranbraher / Knocknaheeny
Clarke	Susan	Bray Community Addiction Team
Coakley	Audrey	SAOL Project
Colclough	Mark	Coolmine Ltd.
Coleman	Patricia	Bawnogue Youth & Family Support
Colgan	Janet	S.A.O.L. Project
Collins	Breda	Priorswood Community Development Project
Collins	Susan	Addiction Response Crumlin
Collins	Willie	Drug and Alcohol Serv. Portacabins.
Conaty	Cindy	NEHB Health Promotion Unit
Conlon	Paul	Dublin Simon Community
Connolly	Aine	Probation and Welfare Service
Connolly	Suzanne	Barnardos
Connors	Emma	Ruhama Women's Project
Connorton	Marian	Chrysalis
Cooke	James	Simon Community
Corbett	Liz	C.A.D.
Corr	Caroline	Merchants Quay Ireland
Corrigan	Jacqueline	Crew Network, Geraldine Court.
Coughlan	Ann	Sisters of Mercy
Cox	Dr. Gemma	Addiction Research Centre
Crowe	Martin P	St. John of Gods Hospital
Cullen	Bemadette	Addiction Services NAHB

Addiction Research Centre, Trinity College Dublin

Second Annual Conference

DEBATING PUBLIC POLICIES ON DRUGS AND ALCOHOL!

Participant List

Culten	Niall	Dept of Justice. Equality and Law Reform
Cumberton	James	DPA
Cuthbert	Lisa	PACE
De Rts	Srg. Naomi	An Garda Sfochana. Community Relations
de Vreede	Rudy	Bray Comm. Addiction Team
Delargy	Dr Ida	
Dillon	Marie	Tallaght Rehabilitation Project
Doheny	Mary	CDP Priorswood
Donnelly	Declan	Probation and Welfare Service
Donohoe	John	The Hanly Centre
Donohoe	Nigel	New Start Drug Rehabilition Prog.
Donovan	Kathleen	University College
Doonan	Rosaleen	Coolamber NTDI
Douglas	Albert	Southside Local Employment
Dowling	Jacinta	MDS/Drugs Service NAHB
Downes	Amanda	CASP
Doyle	Ann	Citizens Information Centre
Doyle	Jim	AIDS/Drugs Service SWAHB
Doyle	Ronan	Horison
Ebbit	Bill	Midland Health Board
Edwards	Wenda	Arrupe Society
Elaine	Grennan	Leinster House. Dial Eireann
Eldin	Dr Nazih	Health Promotion Unit -NEHB
Fallon	Oliver	Probation & Welfare Service
Fanning	Mary	NAHB
Farnham	Maurice	Aids/Drugs Service SWAHB
Farragher	Louise	Drugs Missuse Research Division
Feeney	Marie	Forum Adolesence Support Project
Finegan	Sharon	Dept of an Taoiseach
Fitzpatrick	Clare Dr.	Aids/Drugs Service SWAHB
Fitzsimons	Kathleen	The Matt Talbot Community Trust
Flannagan	Cathy	Dunlaoghaire Rathdown Outreach Project
Fogarty	Catherine	Aids/Drugs Service
Fogarty	Marie	NEHB Health Promotion Unit
Forsyth	Elaine	Bray Comm Addiction Team
Fox	Maria	Canal Communities Training Programme
Fox (Beaumont)	Anne	Beaumont Hospital
Furlong	Alan	The Drug Treatment Centre Board
Furlong	Tony	Bawnogue Youth & Family Support Group
Gallagher	Billy	Probation & Welfare Services
Gallagher	Hugh Dr.	Drugs/Aids Service, City Clinic,
Galvin	Brian	Drugs Missuse Research Division
Garland	Patricia	NWHB
Geiran	Elaine	Probation & Welfare
Geoghegan	Pauline	DTCB
Geoghegan	Tony	Merchant's Quay Ireland
Glennon TD	Jim	Dail Eireann
Glynn	Elaine	National Youth Health Programme
Gough	Dermot	AIDS/Drugs Service SWAHB
Gray	Ruth	SWAHB
Greaves	Hugh	Ballymun Drugs Task Force Co-Ordinator
Greidanus	Liuwe	Salesian Youth Enterprises
Grendon	Jason	Matt Talbot Community Trust
Grennell	Joe	Ringsend Action Project
Hackett	Lydia	Uisce
Halpin	Mary	Probation Service, Abbey Arch
Hanney	Anne	NAHB, Barry Satelite Clinic,
Harding	Stephen	AIDS/Drugs Service ECAHB
Harte	Jacintha	C.A.S.P
Hartford	Theresa	ERHB, Stewarts Hospital,
Hawkin	Kieran	SWAHB
Healy	Eileen	Slainte, Mid-Western H.B.
Hickey	Tim	Northside Partnership
Hinds	Michelle	SWAHB

Addiction Research Centre, Trinity College Dublin
Second Annual Conference
DEBATING PUBLIC POLICIES ON DRUGS AND ALCOHOL!
Participant List

Hoban	Maria	S.W.A.B. (Acute Hospitals)
Honeyman	Andrew	NTDA Coolamber
Hope	Ann	Health Promotion Unit
Howley	Derval	ERHB, Stewarts Hospital,
Howley	Mary	Counsellor
Hucker	Janet	M.Q.I.
Hurley	Oonnacadh	Ballymun Regional Youth Resource
Hutchinson	Alistair	Northern Ireland Area, The Arches Centre,
Ivory	Helen	Addiction Response Crumlin
Jacob	Philip	The Katharine Howard Foundation
Jordan	Tony	Stan Hope Centre
Joyce	Rebecca	Forum Adol. Support Project
Joyce	Steven	Mountview/Blakestown C. Drug Team
Kane	Martin	ECAHB, Southern Cross Bus. Park,
Kavanaqh	Dermot	Merchant's Quay Ireland
Kavanagh	Mark	The Matt Talbot Community Trust
Keane	Martin	Health Research Board, Drug Misuse Research Division
Keane	Rory	AIDS/Drugs Service
Kearney	Noreen	Katharine Howard Foundation
Keaveney	Val	Dun Laoghaire Local Drugs Task Force
Keegan	Lorraine	Coombe Women's Hospital
Keenan	Eamon	Consultant Psychiatrist in Substance Misuse
Kelly	Edwina	National Colege of Ireland
Kelly	Jimmy	Ballyfermot Local Employment Services .
Kelly	Peter	Merchant's Quay Ireland
Kelly	Sandra	Dunlaoghaire Rathdown Outreach Project
Kelly	Susan	Dept of Health & Children
Kelly	Valerie	Salesian Youth Enterprises Ltd.
Kennan O'Dowd	Marie Therese	Bray Local Drugs Task Force
Kennedy	Breda	Barnardos
Kennedy	Margaret	Addiction Services
Kennings	Tommy	Northlands Drug Centre
Kenny	Susan	Unit of Nutrition 8> Dietetics. Clinical Medicine
King	Dermot	Ballymun Youth Action Project Ltd
Kinlan	Denis	Salesian Youth Enterprises
Kinsella	Niamh	Frontline Drugs Project
Lacey	Michael	Drug Treatment Centre Board.Trinity Court
Laide	Kevin	Irish Prison Services
Lane	David	Cork Local Drugs Task Force
Larkin	Tommy	UISCE
Lavelle	Rita	Uisce
Lawless	Marie	Merchant's Quay Ireland
Leahy	Tony	AIOS/Drugs Service NAHB
Leclerc	Elise	SWCCDP. 30 Kilmahuddrick Rd. .
Leydon	Moira	ASTI
Loughran	Hilda	UCD - Dept. of Social Policy & Social Work
Lundberg	John	Uisce
Lynch	Margaret	Ruhama Women's Project
Lyons	Mairead	NACD
MacGiobáin	Mel	North Inner City Drugs Task Force
MacGreil, S.O.	Micheal	Pioneer Total Abstinence Assoc.
Madani	Leena	CARP
Maguue	Bernadette	Addiction Services, N.A.H.B.
Maguire	Bernie	Drugs/Aids Service
Maguue	Betty	
Mahony	Louise	Salesian Youth Enterprises
Malone	Gerry	President I.N.T.O.
Mantoy-Meade	Passerose	Chrysalis Community Drug Project
Mayock	Paula	Addiction Research Centre
McCabe	Ann	CIE Welfare
McCabe	Fergus	National Drugs Strategy Team
McCarthy	Deirdre	Pavee Point
McCormack	John	
McCormack	John	Northlands

Addiction Research Centre, Trinity College Dublin
Second Annual Conference
DEBATING PUBUC POUCIES ON DRUGS AND ALCOHOL!
Participant List

McCully	Maria	House No. 4, Limerick Ent. Dev. Park
HcDonagh	Joan	Drugs/Aids Service SWAHB
McDonnell	Bernie	CAD Community Awareness of Drugs
McEvoy	Nicholas	The Pathways Project
McEvoy	Nick	Pathways Project
McEvoy	Phil	City Clinic
McGrath	Marie	NAHB
McKenzie	Colette	New Start Drug Rehabilition Prog.
McKillen	Dr. Michael	Biochemistry
McMahon	Bernie	Dochas Family Project
McMahon	Deirdre	SWCCDP
McMenamin	Charles	Northlands
McMenamin	Charlie	Northlands Drug Centre, Shepherds Way,
Meagher	Kathleen	Drugs/Aids Service SWAHB
Melough	Brian	Ana Liffey Drug Project
Mills	Aileen	Slainte, Mid-Western H.B.
Molloy	Laura	Health Promotion, SWAHB
Moloney	David	Dept of Health & Children
Moore	Brendan	The Pathways Project
Moore	Jeff	Outreach, Beldale View,
Mulholland	Dr. Deirdre	Dept of Public Health «
Mullally	Deirdre	Addiction Research Centre
MullaUy	Deirdre	Addiction Research Centre
Mullally	Sinéad	Addiction Research Centre
Mullen	Jacinta	
Mullen	Louise	Public Health Dept
Mullen	Martin	Irish Prison Service,
Mulligan	Niall	M/B Community Drug Team
Murphy	Áine	Dochas Family Project
Murphy	Andrew	Probation and Welfare Office
Murphy	Chris	Drugs Awareness
Murray	Denis	Fortune House SWAHB
Murtagh	Christina	The Drug Treatment Centre Board
Murtagh	Vivienne	ACET
Nangle O'Connor	Frances	Irish Prison Service
Naughton	Padraig J Naughton	Pioneer Total Astinence Association
Naughton	Susan	C A S P
Neeson	Brian	MWHB Health Promotion Centre
Nic Lughaoha	Colma	Ballymun Local Drugs Task Force
Nolan	Ann	Dublin Aids Alliance . •
Nugent	Erin	Dublin Aids Alliance
O'Boyce	Brian „	ERHA Public Health Department
O'Brien	Mary	Bray Community Addiction Team
O'Brien	Vivienne	Bray Comm. Addiction Team
O'Cionnaith	Sean	National Drugs Strategy Team
O'Connell	Sharon	Matt Talbot Adolescent Services
O'Connor	Sile	Addiction Research Centre
O'Conor	Fiona	Forbige, Irish. Farm Centre
O'Oonnell	Dr Ian	UCD
O'Donnell	Siobhan	Bawnogue Youth & Family Support Group
O'Driscoll	Denis	Drugs/Aids Service SWAHB
O'Oriscoll	Robert	Southern Health Board, Arbour House
O'Dwyer	Fiona	Drug Treatment Centre Board
O'Keeffe	Frances	Trinity College
O'Neill	Anna	Slainte, Mid-Western Health Board,
O'Neill	Moyra	ACET
O'Neill	Trish	Canal Communities Training Programme
O'Regan	Karen	Farrell Grant Sparks
O'Reilly	Ancilla	SPHE Support Service (Post Primary)
O'Reilly	Catryn	Cabra Resource Centre Ltd.
O'Reilly	Irene	P.A.C.E.
O'Reilly	Pauline	Health Promotion, SWAHB, - "
O'Rourke	Geraldine	Beldale View Addiction Centre
O'Shea	Jim	Aids/Drugs Service. SWAHB,

Addiction Research Centre, Trinity College Dublin
Second Annual Conference
DEBATING PUBUC POUCIES ON DRUGS AND ALCOHOL!
Participant List

O'Shea, Asst. Director	Mary	Merchants Quay Ireland
O'Sullivan	Carol	
o'sullivan	clodagh	Student TCD
O'Sullivan	Maureen	North Inner City Drugs Task Force
O'Sullivan	Miranda	Anna Liffey Drug Project
O'Sullivan Dr.	Cathal	East Coast Area Health Board
O'Sullivan (NUI Maynooth)	Karen	29 Swords Street
Oates	Gisela	
Ogle	**Andy**	CAD Community Awareness of Drugs
Olaide	**Kevin**	Assistant Govener
Patterson	John	Tallaght Youth Service
Patterson	John	TYS. Main Road
Perry	Aodhan	Cabra Resource Centrer Ltd.
Perry	Sharon	Bray Comm. Addiction Team
Phillips	**Melanie**	Bray Comm. Addiction Team
Pike	**Brigid**	Drugs Missuse Research Division
Place	Maria	Ballymun Partnership
Proudfoot	Leslie	**ECAHB. C/o. Alcohol Treatment** Unit
Quearney	John	Exchequer Clinic
Quigley	Paul Dr	Northern Area Health Board
Rackard	**Marion**	Irish National Alliance for Action on Acohol
Ramsey	**Paul**	Dr Stevens Addiction Center
Randall	Niamh	Merchants Quay Ireland
Redmond	Adrienne	Southside Partnership
Regan	Colm	Irish Prison Service.
Ring	Geraldine	Matt Talbot Adolescent **Services**
Roche	Declan	Southern Health Board
Roche	Mary	Barnardos
Rodger	Andrew	**CASP**
Roe	Liam	**Project Leader,** The Talbot **Centre. NAHB,**
Rogan	Martin	South Western Area Health Board
Rooney	Dr Siobhan	Midland Health Board
Rowley	Conor	DAP Crosscare
Ryall	Graham	Rialto Community Drug Team
Ryan	Veronica	AIDS/Drugs Service **SWAHB**
Ryan, Director Addiction	Jim	**ECAHB,**
Ryan TD	Eoin	Dail FJreann
Ryder	Niamh	Addiction Research Centre
Ryder	Siobhan	Soilse
Ryder (« Alden Pk.	Anna	St. Michaels Detox Unit
Scales	Debbie	Chrysalis Counselling Service
Seery Kearney	Mary	City of Dublin YMCA
Shearer	Frances	Dept of Education & Science
Sheehan	**Fiona**	University of Limerick
Sheehan	**Fionnuala**	Deputy Registrar
Sheehan	**Mary**	Tallaght Partnership
Shine	Elizabeth	
Sinclair	Hamish	**Health Research** Board, Drugs Missuse **Research** Division
Sisk	Seamus	Deputy Dir. of Regimes - Irish Prison Service
Skehan	Gerri	Probation & Welfare Service
Smith	Sinead	Pavee Point, **46 North Great** Charles St.,
Smyth	Nina	NAHB
Stack	Kathleen	Drug Strategy Unit, Rural & Gael. Affairs
Stewart	Lorraine	Addiction Response Crumlin
Stokes	Dermot	Youthreach, c/o Curriculum **Development Unt**
Sullivan	Molly	The Catholic Guides of Ireland
Supple	Ger	Chrysalis Community Drug Project
Sweeney	**Brion**	The Drug Treatment Centre Board
Sweeney	Edel	NAHB
Thompson	Bronte	Cuan Dara Drug Detox Unit
Tighe	Dr.Sandra	Student Health Service, Student Centre,
Timmins	Eamon	Dunlaoghaire Rathdown Outreach Project
Timmins	Patricia	Arrupe Society
Tobin	Dr. John	Defence Forces Psychiatrist

Addiction Research Centre, Trinity College Dublin
Second Annual Conference
DEBATING PUBUC POUCIES ON DRUGS AND ALCOHOL!
Participant List

Tooth	Amanda	PACE
Traynor	Oscar	Hartstown/Huntstown CDT
Treacy	Joe	Addiction Counselling Service
Troy (SWABA))	Dr Patrick	SWASBA. eir Kiedan.
Walker	David	Dept of Justice, Equality & Law Reform
Walker	Mary	Garda Research Uni, Garda College,
Walsh	Fiona	WHB-Regional Drugs Co-Ordinator
Walsh	Richard	Midland Health Board
Watts	David	
Whelan	Mane	St. Dominic's Community Response Project
Whelan	Patricia	Project West CDP
Williams	John	Dept of Educ. & Science
Wolfe	Esther	SWAHB

The Role and Effectiveness of Alcohol Policy at the Local Level: International Experiences

Harold D. Holder, Ph.D.
Director and Senior Scientist
Prevention Research Center
Berkeley, California USA

Presented at
"Debating Public Policies on Drugs and Alcohol"
Trinity College, **Dublin, Ireland**
26 September 2002

Introduction

At the community level, traditional prevention efforts have emphasized programs such as public media campaigns, alcoholism recovery efforts, and school education. For the most part, local prevention strategies have been program-based, not policy-based. A program strategy generally refers to organized efforts to reduce alcohol problems by training or educating clients or the general public. Individual prevention approaches typically view communities as catchment areas of people. From this catchment area perspective, the community is viewed largely as a collection of target groups with adverse behaviors and associated risks, and prevention operates largely through educational and treatment efforts to reduce the problems with alcohol. The strategy is thus to find and treat or serve those most at risk. No particular structural change is proposed and those outside the targeted groups are not considered.

On the other hand, public policy seeks to prevent alcohol problems through structural change, i.e., a regulation, law or enforcement priority. Alcohol policies can be implemented at a community level. Thus, a local alcohol policy is any established process, priority, or structure that purposefully alters local social, economic or physical environments to reduce alcohol problems. Examples include making a priority of drinking and driving enforcement by the local police; using local zoning laws and land regulations to control hours of sale or location and density of alcohol outlets, mandating server training for bars, pubs, and restaurants; setting a written policy for responsible alcoholic beverage service by a retail licensed establishment; or allocating enforcement resources to prevent alcohol sales to underage persons.

Thus, rather than attempt to reduce alcohol-related problems through the education and treatment of problem drinkers alone, local efforts can be directed toward affecting policy makers in positions to implement zoning restrictions governing outlet densities. More broadly, collective risk is thus reduced through interventions affecting community processes that influence alcohol use. In alcohol policies at the local level, the community is targeted, not individuals for compelling reasons. First, substance use occurs largely within community contexts. That is, particularly in the case of alcohol, communities provide structures (e.g., zoning and control of alcohol establishments and their location) through which alcohol is typically obtained. Second, many of the costs associated with alcohol are born collectively at the community level, for example, through traffic crashes, property damage, and alcohol-related violence.

Alcohol Policies at the Local Level

This paper explores (a) the extensive range of actions, priorities, and structures that constitute local alcohol policy and (b) summarizes their effectiveness at the local level to reduce alcohol problems. The former point deserves more comment as local policy takes many forms that relate to alcohol use and thereby to alcohol problems, not simply restricting the retail sale of alcohol. One important example of local alcohol policy is enforcement of laws concerning drinking and driving. Many competing demands are made on local police for enforcement priorities. The priority police give to drinking and driving deterrence can be expressed to the community by the level of attention and resources the police commit to drinking and driving deterrence. This type of administrative (not regulatory) decision is an example of a local policy that can be very effective. Another example of local policy is reflected in the alcohol serving practices of bars and restaurants and the sales of alcohol to underage persons by off-premise establishments. Alcohol serving practices reflect policy whether the policy is written or not for an establishment. A wide definition of alcohol policy goes well beyond the direct regulation of retail sales of alcohol by the government. In this way local prevention alternatives in the community are greatly increased beyond services and programs.

The examples used strategies and approaches that go beyond educational programs to attempt changes in the local social, economic, or physical environment related to risky drinking. Adopting broader environmental approaches, these policy projects differ from more traditional approaches in that they attempt to seek policy change, seek to bring about system level community level change, use the media to target policy makers, and seek to mobilize the broader community to pursue desired changed. While applying policy at the community level has always been promising, only recently have there been systematic attempts to evaluate such efforts (Holder, et al., 1997b; Casswell & Gilmore, 1989). For this reason local policy makers find themselves attempting to implement policy changes in the absence of a scientific basis supporting such change.

The studies presented here generally meet a number of criteria to qualify for inclusion. First, they are community wide, as opposed to targeted at high-risk groups, in their focus. Second, they seek to bring about community level system change. Third, to the extent that they use media strategically, such use is targeted at key community leaders in ttfe pursuit of policy change. Fourth, they seek to mobilize the entire community in the pursuit of such change.

Community policy projects use a systems approach to reduce alcohol problems by changing the community structures that provide the context in which alcohol consumption occurs. These system changes are achieved by local alcohol policies. Even if the control or licensing of alcohol production and sale is at the state or national level, policies at the local level can be used to control the number and site of retail outlets, the enforcement of laws regarding drinking driving and serving to intoxication and various other aspects of drinking likely to affect alcohol use and problems.

Community Action Project (CAP), New Zealand (1982-1985)--One of the first community-focused projects was the Community Action Project (CAP) in New Zealand (1982-1985). The CAP was targeted at increasing support among the general public for public policies limiting alcohol consumption as well as promoting attitudes and behaviour supportive of moderate alcohol use (Casswell & Gilmore, 1989). Using a "quasi-experimental" research design, cities were matched in terms of size, ethnic composition and economic level. Of six cities selected, two were exposed to a media campaign only, two to a media campaign plus community action, and two served as controls. A mass media campaign intervention was designed to influence drinking behaviour at the individual level among young males and a print media campaign was used to enhance media advocacy promoting support for restrictions on alcohol advertising and availability (Stewart & Casswell, 1993). The community action intervention was led by a full-time project organiser in each of the two communities. These project organisers worked with local community organisations, particularly local government sectors, in support of project goals. Work with the police and the licensing authorities attempted to restrict alcohol availability via the licensing process. Issues pertaining to alcohol were negotiated with local city councils, including the use of bylaws and placing conditions on leased property such as sports grounds. The project organisers used media advocacy techniques throughout the project, including capitalising on the controversy engendered by the paid media campaigns (both of which were prevented from full publication and broadcast following criticism by the vested interest groups concerned (Casswell, et al., 1989).

While the long-term goal of this project was to reduce alcohol-related problems, such outcomes were not expected as a result of a two year project. The evaluation criteria instead centred first on support for alcohol policies primarily about availability and advertising and targeted social behaviours, measured before and after the intervention using general population surveys. Secondly, the project evaluated conceptualisation of alcohol-related problems and solutions,

using key informant surveys and street interviews. Third, media coverage of alcohol issues was assessed using qualitative and quantitative analysis of local newspaper coverage of alcohol issues.

In regard to support for the policy areas measured in the survey, there was a decline in the control cities in public support, reflecting a national trend towards increasing liberalisation whereas support was maintained in the intervention cities (both media and intensive intervention). Qualitative data from the key informant interviews supported these findings and suggested that policy support was linked to project activities including response to new license applications, work with the police on enforcement and with the local councils on alcohol policy development (Casswell & Stewart, 1989). Media coverage of policy issues was also enhanced in intervention cities (Stewart & Casswell, 1993). Norms about target social behaviours were significantly changed in communities exposed to both media and community organisation compared with the other two conditions. These were concerned with alcohol's effect on fitness and its use to quench thirst and also with the provision of alcoholic and non alcoholic drinks when entertaining (Casswell & Gilmore, 1989).

Community Alcohol Abuse/Injury Prevention Project (CAAIPP)--USA (1984-1989)-The Rhode Island Community Alcohol Abuse/Injury Prevention Project (Putnam, Rocket & Campbell, 1993) was directed toward reducing alcohol-related injuries. Three communities were selected for the study; one community was randomly selected for the intervention while the other two served as controls. The intervention included a 5-hour server training program and policy development for on- and off-premise alcohol sales, enhanced enforcement of liquor and DWI laws, training of police, and community mobilisation activities including mass media and publicity campaigns.

The implementation rate of the server training was high with 61% of servers trained and a very high rate of adoption of house policies by both on-premise (79%) and off-premise (100%) licensed establishments. There was a significant improvement in knowledge following server training and a significant improvement in self-reported serving behaviour that was mostly sustained up until the four-year follow-up (Buka & Birdthistle, 1999).

Outcomes were monitored using twelve survey and surveillance data sets collected pre-post intervention (Putnam, et al., 1993). The results from police and emergency room surveillance indicated a positive imp"act of the intervention. In particular, the intervention resulted in a 27% *increase* in alcohol-related assault arrest rates (reflecting increased enforcement) while emergency room visits declined 9% for injury, 21% assault and 10% for motor vehicle crashes with no comparable decline in the control community. However, follow-up data indicated that the increased enforcement brought about by the project was not maintained after the project ended (Stout, et al., 1993).

The Lahti Project-Finland (1992-1995)--This project, conducted in the city of Lahti, was aimed at the prevention of alcohol-related harm by increasing awareness of alcohol consequences and lowering high risk drinking (Holmila, 1995, 1997). The project involved most sectors of the community and was co-ordinated through the city's health bureau. The core of the project consisted of a local coordinator, information experts, and seven researchers who met approximately every 2 months. The project was composed of multiple prevention components including local approaches to alcohol policy to increase key leaders' perception of alcohol as a social problem, increase brief interventions in primary health care, establish educational events to increase community awareness about heavy drinking, conduct youth community activities to increase knowledge about strength of different drinks and level of drunkenness, conduct parental

education about drinking norms, provide counseling for families of alcoholics, and conduct retail sales surveillance and beverage server training to reduce public violence related to drinking. The evaluation utilizing data from Lahti and two comparison communities before and after the intervention found that the project had increased local newspaper attention to alcohol issues, public perception of alcohol as a social problem, and knowledge of alcohol content and the limits for risky drinking. There was a decline in self-reported heavy drinking (Holmila, 1997).

The Saving Lives **Project—USA-The** Saving Lives Project was conducted in six communities in Massachusetts and was designed to reduce alcohol-impaired driving and related problems such as speeding (Hingson, et al., 1996). In each community a fulltime co-ordinator from within city government organised a task force representing various city departments. Each project was funded $1 per inhabitant annually to pay for: a local coordinator, police enforcement, program activities and educational materials. Programs were designed locally and involved a host of activities including media campaigns, business information programs, speeding and drunk driving awareness days, speed watch telephone hotlines, police training high school peer-led education, Students against Drunk Driving chapters, college prevention programs, and so on.

The program evaluation involved a quasi-experimental design with five comparison communities as controls which while slightly more affluent than experimental sites had similar demographic characteristics, rates of traffic citations and fatal crashes. Outcome measures were based on telephone surveys of drinking and drinking driving and police statistics on fatal and injury crashes, seat belt use, and traffic citations. Results of the evaluation indicated that during the five years that the program was in operation, cities that received the Saving Lives intervention produced a 25% greater decline in fatal crashes than the rest of Massachusetts, i.e., a 42% reduction in fatal auto crashes within the experimental communities, a 47% reduction in the number of fatally injured drivers who were positive for alcohol as well as a 5% decline in visible crash injuries and 8% decline in 16-25 year old crash injuries. In addition, there was a decline in self-reported driving after drinking (specifically among youth) as well as observed speeding. The greatest fatal and injury crash reductions occurred in the 16 to 25-year-old age group.

The COMPARI Project--Australia (1992-1995)--University researchers initiated the Community Mobilization for the Prevention of Alcohol Related Injury (COMPARI) project in the Western Australian regional city of Geraldton. The project was designed to reduce alcohol-related injury by focusing on the general context of alcohol use in the community and not solely on alcoholics or heavy drinkers. The rationale for this global focus was evidence that a large proportion of injuries occur among drinkers who are not alcoholics and sometimes not even chronic heavy drinkers. Project activities addressed five areas: (1) networking and support (e.g., coordinating a local committee on domestic violence); (2) community development (e.g., giving presentations to community service groups related to the prevention of alcohol-related injury); (3) alternate non-drinking activities, e.g., underage youth disco; (4) social marketing (e.g., media campaign presenting safe partying tips); and (5) policy institutionalisation (e.g., implementation of guidelines for licensing applications to serve liquor on council property, the development and delivery of a training package in responsible serving of alcohol).

The project was evaluated using time series statistical techniques, examining wholesale alcohol sales, assaults, traffic crashes, and hospital morbidity. Although one of the harm indicators approached statistical significance, the analyses failed to demonstrate an impact, possibly due to the short length of the follow-up period. On the other hand, the project was highly valued by the community. After completion of the university-managed demonstration project, the project was transferred to local control. It currently operates under a contract awarded by the government

and is the only non-metropolitan alcohol and drug program undertaking community-wide activities in Western Australia (Midford, et al., 1998).

The Surfers Paradise Safety Action Project and Its Replications--Australia (1993-1994)--The goal of the Surfers Paradise project was to reduce violence and disorder associated with the high concentration of licensed establishments in the resort town of Surfers Paradise in Queensland, Australia (Homel, et al., 1997). The project used a full-time community organiser who formed a steering committee to oversee a number of activities focused on increasing safety in and around licensed establishments. The project involved three major strategies: (1) the creation of a Community Forum including the development of task groups and implementation (2) the development and implementation of risk assessments, Model House ment in the external regulation of licensed premises).

replication sites. ...
the lack of a controlled experimenta
Surfers Paradise, the rate had increased to 8.5, highlighting
maintain gains achieved from community action projects (Homel, et al., 1997).

The CMCA Project--USA--The Communities Mobilizing for Change on Alcohol (CMCA) designed to reduce the accessibility of alcohol to youth under the legal drinking age of 21. project was composed of five core components: (1) influences on community policies and practices, (2) community policies, (3) youth alcohol access, (4) youth alcohol consumption (5) youth alcohol problems. The CMCA project recruited 15 communities in Minnesota a western Wisconsin. Communities were matched and randomly assigned to be in the inter or control condition, resulting in seven intervention sites and eight comparisons, ranging i population from 8,000 to 65,000.

The CMCA project employed a part-time local organiser within each community to activ communities to select and implement interventions designed to reduce underage access t alcohol. Such interventions could include decoy operations with alcohol outlets (in whic typically have underage buyers purchase alcohol at selected outlets), citizen monitoring outlets selling to youth, keg registration (which requires that purchasers of kegs of alcoh provide identifying information thus establishing liability for resulting problems at part minors are drinking), developing alcohol-free events for youth, shortening hours of sale alcohol, response beverage service training, and developing educational programs fo and adults.

Evaluation data were collected before the intervention and about two-and-a-half years beginning the intervention. These data included a survey of 9th and 12th grade studen baseline, 12th graders at follow-up, pre and post telephone surveys of 18 to 20-year-o beverage alcohol merchants, a study using 21-year-old women who appeared to be yo see if they would be sold or served alcohol without having identification, and monito media. Qualitative and quantitative process data were collected to capture how the i moved ahead and the obstacles staff and communities faced in reaching their objecti

Merchant survey data revealed that they increased checking for age identification, reduced their likelihood of sales to minors, and reported more care in controlling sales to youth (Wagenaar, et al., 1996). The study using young looking purchasers confirmed that alcohol merchants increased age identification checks and reduced their propensity to sell to minors. The telephone survey of 18 to 20-year-olds indicated that they were less likely to consume alcohol themselves and less likely to provide it to other underage persons (Wagenaar, et al., 2000). Finally, the project found a statistically significant net decline (intervention compared to control communities) in drinking and driving arrests among 18-20 year olds and disorderly conduct violations among 15 to 17-year-olds (Wagenaar, Murray, & Toomey, 2000).

Community Trials Project-USA (1992-1996)--The Community Trials Project (Holder, et al., 1997a) was a five component community-level intervention conducted in three experimental communities matched to three comparisons selected for geographical and cultural diversity. The five interacting components included: (1) a "Community Knowledge, Values, and Mobilization" component to develop community organisation and support for the goals and strategies of the project; (2) a "Responsible Beverage Service Practices" component to reduce the risk of intoxicated and/or underage customers in bars and restaurants; (3) a "Reduction Of Underage Drinking" component to reduce underage access; (4) a "Risk Of Drinking And Driving" component to increase enforcement efficiency regarding Driving While Impaired and reduce drinking and driving; and (5) an "Access To Alcohol" component to reduce overall availability of alcohol.

Community Knowledge, Values, and Mobilization, which **trained key community members in** techniques for working with local news media, was associated with a statistically significant increase in coverage of alcohol issues in local newspapers and on local TV in the experimental communities. Increased media coverage was an important mechanism to gain leaders'support of specific alcohol policies and to increase public awareness of drinking and driving enforcement (see Holder & Treno, 1997).

Alcohol Sales to Underage Persons produced a significant reduction in alcohol sales to minors. Overall, off-premise outlets in experimental communities were half as likely to sell alcohol to minors as in the comparison sites following the intervention. This was the joint result of special training of clerks and managers to conduct age identification checks, the development of effective off-premise outlet policies, and, especially, the threat of enforcement of lawsuits against sales to minors (see Grube, 1997).

Responsible Beverage Services yielded an increased adoption of responsible alcohol serving policies in the experimental communities over the comparison communities. There was a nonsignificant but suggestive trend toward reduced alcohol service to heavy-drinking patrons. Such reductions in service may require longer follow-up than was possible at this time (see Saltz & Stanghetta, 1997).

Alcohol Access achieved some of its goals as all communities adopted some aspects of local policies to reduce alcohol access, particularly in addressing the density of on-premise outlets, For example, one community began a ban on new outlets. However, the effect of the alcohol access component will require much longer follow-up to determine whether a significant reduction in the density of alcohol outlets and an associated reduction in heavy or high risk drinking occurred as result of the intervention (see Reynolds, Holder, & Gruenewald, 1997).

Drinking and Driving produced a statistically significant reduction in alcohol-involved traffic crashes over the initial 28-month intervention period from September 1993 (see Voas, Holder, &

Gruenewald, 1997), largely due to the introduction of special and highly visible drink and drive enforcement with new equipment and special training, as well as support from increased news coverage. Alcohol-involved traffic crashes were estimated (via time-series analysis with matched comparison communities) to have dropped by about 10% annually, drink/drive crashes with arrests dropped by 6%, alcohol-involved assault injuries appearing in the Emergency Room of local hospitals declined by 2% and severe assault cases requiring hospitalization dropped by 43% in comparison to control communities (Holder, et al., 2000).

Implications from Community Action Research on Policy Interventions at the Local Level

Community action is essential for increasing local awareness, changing attitudes regarding alcohol use and problems, and increasing support for local alcohol policies (Casswell, 1995; Holmila, 1997; Holder, et al., 2000; Midford, et al., 1998). The most local alcohol policy projects internationally have focused on *specific issues,* such as underage drinking (Wagenaar, et al., 1996), drinking and driving (Hingson, et al., 1996; Holder, et al., 2000; Voas, Holder, & Gruenewald, 1997), violence in and around licensed premises (Hauritz*, et al., 1998; Homel, et al., 1997) or alcohol injuries (Putnam, et al., 1993). None of these projects decreased overall alcohol consumption or sales, suggesting that community policy approaches may not be useful strategies for decreasing overall alcohol consumption, at least in the short-term, but have high potential to decrease alcohol problems.

Community Mobilization is essential—Community mobilization in support of alcohol policies to reduce alcohol-related problems typically have the following methods in common:

- a full or part-time person serves as a community organizer
- the community organizer (and often others on the project) working with local government, businesses, police, etc., to support prevention policies and strategies
- usually local committees are formed to develop or refine policies/interventions and support their implementation
- media advocacy or the use of local news about alcohol issues and public policy as a key strategy.

As part of community action, the process of developing and sustaining alcohol policy approaches encourages local organisations and citizens to participate in and support policies. In this way, community action can result in powerful effects by developing a collection of strategies that work together synergistically.

Media Advocacy Plays important /to/e--Media advocacy as the purposeful use of local news to support policy initiatives has become an increasingly popular tool in local efforts. This approach complements health and community action campaigns and is based on the view that public health problems are the result of social, economic and political conditions. As noted by Wallack and Dorfman (1996), the two main goals of media advocacy are to gain access to the media to tell an important local story and to frame that story so that it focuses on the policy issues rather than the unhealthy behaviour of individuals. By having newspaper or TV editors and reporters "tell the story" rather than paying for counter-advertising, or preparing PSAs, program staff time and resources can be more efficiently used.

Media advocacy is usually undertaken as a component of a multi-faceted community action initiative (see Stewart & Casswell, 1993) or in connection with regulatory changes, law enforcement, community mobilization and monitoring of high risk behaviour (Treno, et al., 1996; Treno & Holder, 1997; Holder & Treno, 1997). Jemigan and Wright's (1996) volume

provides case studies of media advocacy, and Stewart and Casswell (1993) provide outcomes from the New Zealand Community Action Project (CAP) carried out in the early 1980s. In the New Zealand study there were positive effects in intervention communities, in comparison with the reference communities. For example, an increase in media coverage of alcohol-related material focusing on moderation and alcohol policy was evident.

Mechanisms for Change at the Local L^ve/--Community action projects support interventions whose effects can span several years. Effects can occur immediately and over the long-term. Sometimes, it is not possible to measure ultimate impacts during the timeframe of the project. Therefore, it is important to monitor proximal or mediating outcomes and link these in an overall causal model to long term public health goals. For example, increased enforcement of laws against drink driving and increased local news attention to police enforcement has been linked to increases of perceived risk of arrest which in-turn has been linked to decreases in drinking and driving and subsequent automobile crashes (Voas, Holder, & Gruenewald, 1997; Hingson, et al., 1996). Merchant training, enforcement of rules and regulations, and local news coverage of policy when used in combination appeared to be instrumental in reducing underage purchases (Wagenaar, et al., 2000; Grube, 1997). Similarly, both training and enforcement may be necessary in order to reduce service to intoxicated patrons (McKnight & Streff, 1994; Saltz, 1997). Finally, decreases in alcohol outlet densities have been linked recently to decreases in automobile crashes (Gruenewald & Johnson, under review) suggesting that community efforts to limit such densities may produce desired outcomes in terms of crashes and resulting injuries and deaths.

Advantages and Disadvantages of Local-Based Alcohol Policy

Enacting policy at the community level has a number of advantages. First, local citizens are close to where alcohol problems are experienced personally. The community must deal with drinking drivers, and injuries and deaths from crashes involving alcohol-impaired drivers. It must provide hospital services and emergency medical services, conduct autopsies, and work with personal rehabilitation and recovery. Alcohol problems are personal experiences for community members, and efforts to prevent or reduce future problems are also a personal matter. Parent groups can be formed around a concern about underage drinking. Such groups can be mobilized to create public pressure against retail alcohol sales to underage persons and against access to alcohol at youthful social events. The consequences of such a policy, if it constrains local retailers or establishes priorities for local police enforcement, are experienced locally. When local policy advocates advance policy positions, they also encounter those who may oppose such policies (also members of the community) who may have vested interests in information dissemination, selling alcohol, and treatment. This means that policy can create, in a local forum, debate between opposing community groups and individuals and thus draw news media attention to such issues.

Funds to support extensive or expensive community alcohol programs are either limited or nonexistent in many countries today. If the implementation of an alcohol policy and its maintenance can be of low or no cost, then local leadership, especially elected officials who have a number of competing demands for tax revenue, may be especially receptive. Local leaders wish to show that they are finding solutions to problems that require little local funds. Low-cost approaches help leaders win elections, increasing their power and influence, and make a real contribution to the community. A policy can be shown to the community to (a) have the potential to reduce alcohol problems, (b) be inexpensive to implement and maintain, and (c) have

local citizen support (even if there is special interest opposition, e.g., local alcohol wholesalers). These three elements are especially attractive to local leaders.

Many strategic alcohol policies have generated evidence of effectiveness (often at the national or state/provincial level) that can be presented to local citizens. Evidence of potential effectiveness within a real community appeals to both citizens and their leaders. In current times, prevention programs are increasingly being asked to demonstrate that they work or have benefit. The research base for many alcohol policies demonstrates what can and cannot work (see Edwards, et al., 1994).

There are also problems and difficulties for alcohol policy at the local level.

First, local alcohol policies are rarely highly visible, lacking lapel pins, balloons, posters, brochures, PSAs, etc. Policies, by their very nature, do not usually naturally generate public spectacles or celebrations. However, news media coverage prompted by media advocacy strategies (Treno, et al., 1996) can stimulate public attention to the need for and support of specific policies. Public activities that bring attention to alcohol problems have a valuable place in a spectrum of prevention strategies, but they are almost certainly never sufficient. However, public activities such as an "Alcohol Awareness Week" produce personally satisfying experiences for citizens and leaders. Such programs generate enthusiasm and public recognition. Policies generally are not guaranteed to provide immediate personal satisfaction to their advocates, in the way that a campaign or visible service program can.

Second, local alcohol policies generate controversy. Such controversies occurred in each of the three experimental communities of the U.S. community trial. Unless the local citizens who are supporting and leading efforts to implement special policies are prepared for opposition, the enthusiasm of local groups can be reduced. As opposition grows in response to a local alcohol policy, for example to restrictions on new alcohol outlets, local volunteers can feel torn between wanting to be "good neighbors" and wanting to reduce alcohol problems in the community. This conflict can arise in cases of local restrictions on alcohol retail outlets, stores, or bars and restaurants, and opposition by retailers.

Third, a program that provides services or educational materials is more easily grasped than are proposed changes in local zoning requirements that establish minimum distances between alcohol outlets. Community leaders may require more convincing before they appreciate the importance of local policies. Policies were as easily understood and appreciated by community representatives as were prevention programs or services.

Fourth, policies often take time to work. Increased enforcement of laws prohibiting alcohol sales to minors coupled with manager/clerk training are unlikely to immediately reduce youthful drinking. As a result, local advocates will not necessarily personally experience a quick success. The potential long-term effectiveness of a policy can be difficult for people to accept.

Conclusions

This review of community approaches to the prevention of alcohol problems at the local level can draw important conclusions. The case studies reviewed here demonstrate the potential of a well-defined, theory-driven community action approach to reduce local alcohol problems. Each of these examples, and other local efforts not discussed here, show that local initiatives can be efficacious.

Community action projects are just that, projects that seek to address the total community system and are not naturally limited to a specific target group or service group. These are not projects in which a local program to provide services to a specific target group happens to be located in a community. These are efforts to involve community leadership in designing and implementing and supporting alcohol policies to reduce problems across the community in total.

Recommendations based upon local prevention efforts suggest alcohol problems are best considered in terms of the community systems that produce them. Local alcohol policy strategies have the greatest potential to be effective when prior scientific evidence is utilized. Many of the local projects described here implemented a series of interventions that prior research had indicated were likely to reduce alcohol-related problems. Thus, complementary system strategies that seek to restructure the total alcohol environment are more likely to be effective than single intervention strategies. Finally, prevention strategies with the natural capacity for long-term institutionalization are to be favored over interventions that are only in place for the life of the project.

REFERENCES

Buka, S.L. and Birdthistle, I.J. (1999). Long-term effects of a community-wide alcohol server training intervention. Journal of Studies on Alcohol. 60. 27-36.

Casswell, S. (1995). Public discourse on alcohol: Implications for public policy. In H.D. Holder and G. Edwards (eds.) Alcohol and Public Policy: Evidence and Issues, pp. 190-212. Oxford: Oxford University Press.

Casswell, S. and Gilmore, L. (1989). An evaluated community action project. Journal of Studies on Alcohol. 50, 339-346.

Casswell, S., Gilmore, L., Maguire, V., and Ransom, R. (1989). Changes in public support for alcohol policies following a community-based campaign. British Journal of Addiction. 84,515-522.

Casswell, S. and Stewart, L. (1989). A community action project on alcohol: Community organisation and its evaluation. Community Health Studies. 12(1), 39-48.

Edwards, G., Anderson, P., Babor, T.F., Casswell, S., Ferrence, R., Giesbrecht, N., Godfrey, C, Holder, H.D., Lemmens, P., Mäkelä, K., Midanik, L.T., Norström, T., Osterberg, E., Romelsjö, A., Room, R., Simpura, J., and Skog, O.-J. (1994). Alcohol Policy and the Public Good. New York: Oxford University Press.

Grube, J.W. (1997). Preventing sales of alcohol to minors: Results from a community trial. Addiction. 92(Supple. 2), S251-S260.

Gruenewald, P.J. and Johnson, F.W. (under review). Drinking, driving and crashing: A traffic flow model of alcohol-related motor vehicle accidents. Addiction.

Hauritz, M, Homel, R., Mcllwain, G., Burrows, T., and Townsley, M. (1998). Reducing violence in licensed venues through community safety action projects: The Queensland experience. Contemporary Drug Problems. 25(FalO. 511-551.

Hingson, R., McGovern, T., Howland, J., Heeren, T., Winter, M., and Zakocs, R. (1996). Reducing alcohol-impaired driving in Massachusetts: The Saving Lives program. American Journal of Public Heath. 86(6). 791-797.

Holder, H.D., Gruenewald, P.J., Ponicki, W., Grube, J.W., Saltz, R.F., Voas, R.B., Reynolds, R., Davis, J., Sanchez, L., Gaumont, G., Roeper, P., and Treno, A.J. (November 8, 2000). Effect of community-based interventions on high risk drinking and alcohol-related injuries. Journal of the American Medical Association. 284(18). 2341-2347.

Holder, H.D., Saltz, R.F., Grube, J.W., Voas, R.B., Gruenewald, P.J., and Treno, A.J. (1997a). A community prevention trial to reduce alcohol-involved accidental injury and death: Overview. Addiction. 92(Supple. 2), S155-S171.

Holder, H.D., Saltz, R.F., Grube, J.W., Treno, A.J., Reynolds, R.I., Voas, R.B., and Gruenewald, P.J. (1997b). Summing up: Lessons from a comprehensive community prevention trial. Addiction. 92(Supple. 2), S293-S301.

Holder, H.D. and Treno, A.J. (1997). Media advocacy in community prevention: News as a means to advance policy change. Addiction, 92(Supple. 2), S189-S199.

Holmila, M. (ed.) (1997). Community Prevention of Alcohol Problems. London: MacMillan Press, Ltd.

Holmila, M. (1995). Community action on alcohol: Experiences of the Lahti Project in Finland. Health Promotion International.]0(4), 283-291.

Homel, R., Hauritz, M., Worthley, R., Mcllwain, G., and Carvolth, R. (1997). Preventing alcohol-relating crime through community action: The Surfers Paradise Safety Action Project. In: Policing for Prevention: Reducing Crime, Public Intoxication, and Injury. Crime Prevention Studies. 7. pp. 35-90. Monsey, NY: Criminal Justice Press.

Jemigan, D. and Wright, P.A. (1996). Media advocacy: Lessons from community experience. Journal of Public Health Policy. 17(3), 306-329.

McKnight, A.J. and Streff, F.M. (1994). The effect of enforcement upon service of alcohol to intoxicated patrons of bars and restaurants. Accident Analysis and Prevention. 26, 19-88.

Midford, R., Boots, K., Masters, L., and Chikritzhs, T. (1998). Time series analysis of outcome measures from a community alcohol harm reduction project in Australia. Presented at the 1998 Kettil Bruun Society's Fourth Symposium on Community Action, Research and the Prevention of Alcohol and Other Drug Problems, Russell, New Zealand, February 8 to 13.

Putnam, S.L., Rockett, I.R.H., and Campbell, M.K. (1993). Methodological issues in community-based alcohol-related injury prevention projects: Attribution of program effects. In T.K. Greenfield and R. Zimmerman (eds.) Experiences with Community Action Projects: New Research in the Prevention of Alcohol and Other Drug Problems, pp. 31-39. Rockville, MD: Center for Substance Abuse Prevention.

Reynolds, R.I., Holder, H.D., and Gruenewald, P.J. (1997). Community prevention and alcohol retail access. Addiction. 92(Supple. 2), S261-S272.

Saltz, R.F. (1997). Prevention where alcohol is sold and consumed: Server intervention and responsible beverage service. In M. Plant, E. Single, and T. Stockwell (eds.) Alcohol: Minimising the Harm, pp. 72-84. London: Free Association Books, Ltd.

Saltz, R.F. and Stanghetta, P. (1997). A community-wide responsible beverage service program in three communities: Early findings, Addiction. 92, S237-249.

Stewart, L. and Casswell, S. (1993). Media advocacy for alcohol policy support: Results from the New Zealand Community Action Project. Health Promotion International. 8(3), 167-175.

Stout, R.L., Rose, J.S., Speare, M.C., Buka, S.L., Laforge, R.G., Campbell, M.K., and Waters, W.J. (1993). Sustaining interventions in communities: The Rhode Island community-based prevention trial. In T.K. Greenfield and R. Zimmerman (eds.) Experiences with Community Action Projects: New Research in the Prevention of Alcohol and Other Drug Problems, pp. 253-261. Rockville, MD: U.S. Department of Health and Human Services.

Treno, A.J., Breed, L., Holder, H.D., Roeper, P., Thomas, B.A., and Gruenewald, P.J. (1996). Evaluation of media advocacy within a community trial to reduce alcohol involved injury: Preliminary newspaper results. Evaluation Review. 2Q(4), 404-423.

Treno, A.J. and Holder, H.D. (1997). Community mobilization: Evaluation of an environmental approach to local action. Addiction. 92(Supple. 2), S173-S187.

Voas, R.B., Holder, H.D., and Gruenewald, P.J. (1997). The effect of drinking and driving interventions on alcohol-involved traffic crashes within a comprehensive community trial. Addiction. 92(Supple. 2). S221-S236.

Wagenaar, A., Murray, D., Gehan, J., Woofson, M., Forster, J., Toomey, T., Perry, C, and Jones-Webb, R. (2000). Communities mobilizing for change on alcohol: Outcomes from a randomized community trial. Journal of Studies on Alcohol. £1, 85-94.

Wagenaar, A., Murray, D., and Toomey, T. (2000). Communities mobilizing for change on alcohol (CMCA): Effects of a randomized trial on arrests and traffic crashes. Addiction. 92,209-217.

Wagenaar, A.C., Toomey, T.L., Murray, D.M., Short, B.J., Wolfson, M., Jones-Webb, R. (1996). Sources of alcohol for underage drinkers. Journal of Studies on Alcohol. 57(3), 325-333.

Wallack, L. and Dorfman, L. (1996). Media advocacy: A strategy for advancing policy and promoting health. Health Education Quarterly. 23(3). 293-317.

Social Responsibility and the Drinks Industry

Pat Barry

Guinness Group Sales

Response Summary

Dr. Holder's conclusions has synergies with one of the principles of my own company - Think Global - act local. His approach is one to which the Drinks Industry in Ireland can subscribe and, further, one which the industry would be prepared to support. Why? Because contrary to what some people might suggest - the industry in Ireland does care and does have social responsibility high on its agenda. And as an industry that plays a role at the very core of the issue, surely it makes sense for it to be engaged more actively with those focussed on the issues of abuse of alcohol.

Dr. Holder's paper establishes a number of learnings for us in Ireland: Clear objectives and a clear understanding of the issue are critical - tackling abuse of a specific nature (e.g. abuse of licensing laws and drink-driving have a higher likelihood of success than more generic interventions around alcohol use levels).

Locally based initiatives engender higher levels of commitment, and help stimulate a debate around cause, effect and symptom. When compared with more conventional social marketing approaches to alcohol abuse, the community-based initiatives can be very cost effective.

Finally, the visible evidence of success can have a very motivating impact on the local community, leading to more empowered groups of citizens with an appetite and an energy for tackling societal issues. Against this, local policies can find it difficult to gain real traction and risk being getto-ised. The evidence presented suggests that neither the community nor the policy-makers always set the correct time frame for change.

Dr. Butler's response will indicated that we haven't really experimented with bottom-up approaches in Ireland (for alcohol). Surely, some of the initiatives in which the Drinks Industry is or can be involved provide us with a basis for implementing real and effective action to tackle the grave problem of alcohol abuse within our society."

How Local is Local? Assessing the Prospects for Local Alcohol Policy in Ireland

Shane Butler, PhD
Addiction Research Centre
Trinity College Dublin

Paper to be presented at:

'Debating Public Policies on Drugs and Alcohol'

One-day conference at the Addiction Research Centre, Trinity College Dublin, 26 September 2002

Introduction

Dr Holder has presented models or case studies, from various parts of the world, of local alcohol policy initiatives based upon clear systemic ideas. While acknowledging that these initiatives can be politically controversial and generally not without their difficulties, he is cautiously optimistic about their capacity to reduce the incidence and prevalence of alcohol problems. He emphasises the distinction between *programmes* and *policies:* the former referring to specific strategies, usually of an educational or therapeutic nature, aimed vaguely at the general public or selectively at subgroups such as problem drinkers or young people, and the latter to theory-driven, broader strategies aimed at bringing about environmental or structural change through the use of law or regulation. His basic premise is that programmed activity is likely to have just a superficial impact on societal alcohol problems, and that serious and sustained improvement in this sphere can only come about through the development and implementation of policies which have a well-developed rationale and a general impact on communal drinking habits.

In responding to Holder's paper from an Irish perspective, I shall attempt to answer the following questions:

> **How novel** are his ideas about community alcohol policy in an Irish context?
> What are the cultural and institutional factors which either assist or militate against such policy initiatives in this country?
> What alcohol policy processes are currently in train in Ireland and what realistically can we expect of them ?

Public and Policy Discourse on Alcohol Problems in Ireland

The disease concept of alcoholism - which suggests that alcoholism is a discrete, unitary disorder largely explicable in terms of the individual vulnerabilities of a minority of drinkers and only minimally attributable to alcohol *per se* - gained much ground in Ireland in the thirty years or so following the Second World War (Butler, 2002). The disease concept, which had its origins in the USA, was diffused internationally by the World Health Organisation, adopted incrementally by the Irish Department of Health, and promoted most explicitly by a voluntary organisation known as the Irish National Council on Alcoholism (INCA). A central implication of this conceptualisation of alcohol problems was that there was neither justification nor necessity for the State as a whole to concern itself with alcohol control systems, such as those dealing with price or with public access to retail outlets, since it was assumed that there was no link between societal patterns of consumption and the incidence of this disease. Instead, it was considered that public sector responsibility in this sphere could validly be limited to the provision of treatment and rehabilitation programmes for alcoholism within the health sector, as well as public education about the disease of alcoholism.

From the mid-1970s, however, Irish researchers (particularly Dr Dermot Walsh of the Medico-Social Research Board) became aware of and were drawn into international research networks which were developing a public health perspective on alcohol, almost the polar opposite of the disease concept (Davies and Walsh, 1983). This public health perspective emphasised the diversity of the alcohol-related problems experienced by society, suggested that prevention of this spectrum of problems demanded a co-ordinated or intersectoral response from government, and argued for a central role for regulatory or control policies as part of this new systemic public health approach to alcohol. In short, the public health perspective switched the focus back from alcoholism to alcohol. In Ireland, the public health perspective on alcohol was the theoretical framework used in relation to

alcohol problems in *The Psychiatric Services: Planning for the Future* , an important planning document on public mental health sendees which was published in 1984. It was the public health perspective which informed the policy process that culminated in the publication in 1996 of the *National Alcohol Policy,* and it was also this perspective which underpinned the publication in May 2002 of the interim report of *Strategic Task Force on Alcohol*

It might, therefore, be concluded that Holder's ideas about alcohol policy are not particularly novel in an Irish context, that versions of them have circulating here for almost twenty years and that they have, already made a significant impact. A conclusion of this kind would be unwarranted, however, for two main reasons. The first reason is that discourse based on the public health perspective on alcohol in Ireland appears to have been almost entirely confined to a small circle of professionals and policy makers; it has never been popularly publicised or promoted as was the disease concept and, although there are no social survey findings available on general awareness of it, impressionistically the public health perspective is not a 'governing image' (Room, 2001) as was the disease concept. The second, and perhaps the more important, reason for not seeing Holder's ideas as familiar and influential in Ireland is that there has been virtually no implementation of the policy proposals which have been based upon this theoretical perspective (Butler, 2001). This is especially true of some of the aspirational ideas about bottom-up or community initiatives on the prevention of alcohol problems contained in the National Alcohol Policy.

The answer to the first question, concerning the novelty of Holder's ideas in an Irish policy context, is therefore that they are novel in the following important ways: they have not been widely publicised; they do not appear to be well-known beyond the confines of those few people with specialist interest in alcohol policy; and they have not significantly influenced the implementation of new policies.

Cultural and Institutional Influences on Alcohol Policy in Ireland

What is immediately striking about the case studies presented by Holder is that they all are set in societies which Levine (1992) has categorised as having *temperance cultures* - 'the term temperance cultures is used here to refer to those societies which, in the nineteenth and early twentieth century centuries, had large, enduring temperance movements' (p. 16). Levine identified nine such temperance cultures: 'the English-speaking cultures of the US, Canada, the UK, Australia, and New Zealand; and the northern Scandanavian or Nordic societies of Finland, Sweden, Norway, and Iceland' (p.i6). He argues that temperance activity of this kind is confined to societies which were predominantly Protestant and also within which a large portion of the total alcohol consumed was in the form of distilled spirits, and he also suggests that the cultural and social influence of these religious-based movements extended beyond those who were formally aligned to them and also across time.

Ireland, with its large Roman Catholic majority, is not by this reckoning a temperance culture. It is not part of the Roman Catholic ethos to view alcohol as inherently evil or to suggest that all believing and practising Catholics are morally obliged to abstain. Historical studies of the legendary Father Mathew temperance campaign of the 1840s (for instance, Malcolm, 1986) highlight the ambivalence of the Catholic Hierarchy towards a campaign which was suspiciously Protestant in its ideological antipathy towards alcohol. These studies also throw interesting light on the relationship between Fr Mathew and the leading Irish parliamentarian of the day, Daniel O'Connell, as O'Connell sought to balance popular support for temperance against his own personal support from the drinks industry. Ultimately, O'Connell distanced himself from the Fr Mathew movement, concluding that its opposition to

alcohol was excessive and exaggerated. Due largely to his lack of organisational skills, Fr Mathew left no enduring temperance movement behind him , and it was not until the end of the nineteenth century that the Pioneer Total Abstinence Association was established as a more conventional temperance organisation, integrated bureaucratically into the mainstream of the Catholic Church in Ireland (Ferriter, 1999). The temperance ideals of the Pioneer Association were never of the fundamentalist kind characteristic of Protestant temperance organisations. It was never suggested, for instance, that all Irish Catholics should abstain from alcohol, nor indeed was it even expected that all Catholic clergymen should do so; instead, as the organisation's title indicates, it was assumed that those-who voluntarily abstained from alcohol for spiritual motives would be a relatively small and hardy band of 'pioneers' within the larger institution of the Catholic Church.

The relevance of this historical material for present-day alcohol policy making is reasonably clear. Unlike those 'temperance societies' which have featured in Holder's case studies, Ireland is a country in which there has never been cultural support for legislative or other policy measures apparently based upon a fundamentalist rejection of alcohol. Since the 1960s, and coinciding with the general success of the alcoholism movement here, the relatively moderate Pioneer Total Abstinence Association has experienced both a decline in numbers and a lack of clarity as to its general mission in Irish society. The policy environment here is not generally supportive of initiatives which, however rational and evidence-based they may be, can be seen as prohibitionist, so that present-day politicians are unlikely to support such initiatives unless and until they have been explained, publicised and generally gained popular support.

Looking specifically at gov ernmental structures, the main point to be made is that since 1922 Ireland has tended towards a centralised system of government with a relatively underdeveloped local governmental system (Daly, 1997). Health and social services, education, and policing all are all funded from central government and almost entirely based upon policy laid

down by central government, so that there is little scope for local alcohol policy initiatives such as those described by Holder. On the other hand, given the small size of the country - with a total population of about 4 millions at present - it could be argued that, by comparison with large urban areas in other countries or in the overall EU context, all policy here is local policy. It is also worth noting that our electoral system, PR-STV, ensures that the gap between national parliamentarians and the electorate is a narrow one, with TDs being compelled to stay close to the 'grassroots' if they wish to be re-elected. What this means for alcohol policy is that parliamentarians are sensitive to but mainly responsive to public opinion; political support for alcohol policy initiatives is likely to come *in the wake of-* popular support for such initiatives. Finally, the strength and the lobbying capacity of the drinks industry must be recognised. The drinks industry has the money and expertise to lobby government effectively, just as it has a strong record of supporting local community social and sporting events, and it is also not without significance that TDs have frequently used pubs as sites for the 'clinics' in which they maintain contact with their constituents.

The answer to the second question, therefore, is that Ireland is not culturally sympathetic to policy which appears to be based upon fundamentalist opposition to alcohol . The centralised nature of Irish governmental systems also appears to preclude local alcohol policy activity of the kind described by Holder. It is theoretically possible, given the relatively small scale of Irish society, to agree to and implement effective public health policies on alcohol on a national level, but only if or when public understanding of and popular support for this perspective has been created.

Current Irish Alcohol Policy Making

The third question which I will address concerns current alcohol policy making in Ireland. On the whole, the prospects for bringing about a

reduction in the prevalence of alcohol-related problems along the lines suggested by Holder do not seem particularly good. This is not because there is *no* policy making currently taking place here, but rather because there are at present two parallel policy processes, the dominant of which is ideologically at variance with that of Holder's .

The first policy process is the one alluded to above which, broadly speaking, is compatible with everything that Holder has described. It is a public health approach which emphasises alcohol rather than alcoholism; which sees a link between overall consumption levels and the prevalence of a range of alcohol-related problems; which sees a role for all sectors of government rather than just the health and educational sectors; which values bottom-up or community initiatives; and which favours control measures in relation to price, accessibility and advertising / promotion of alcohol. This point of view was presented most emphatically in recent times in the Interim Report of the **Strategic Task Force on Alcohol** (based in the Department of Health and Children) in May 2002.

The second ongoing policy process is that of the **Commission on Liquor Licensing** (based in the Department of Justice, Equality and Law Reform and established following the enactment of the Intoxicating Liquor Act, 2000) which has produced two interim reports since its establishment in late 2000. The Commission's first term of reference enjoins it to " make recommendations for a Liquor Licensing system geared to meeting the needs of consumers, in a competitive market environment, while taking due account of the social, health and economic interests of a modern society" . Despite the references to social and health interests, it is clear from a reading of its two interim reports that philosophically the Commission is driven by a fundamental commitment to neoliberal economic theory. Within this framework alcohol is seen as a normal commodity , the sale and supply of which should be arranged in line with economic ideas about consumer sovereignty and competition and with the minimum of regulation . While there is opposition within the Commission to greater deregulation of the retail

drinks trade, this opposition comes from existing retailers - anxious to protect monopolies which they currently enjoy - rather than from public health interests. Social and health concerns are addressed naively within the Commission and on a programmed basis: the implication is that drink problems are largely confined to young people, and there is a touching but unsubstantiated belief in the preventive value of school-based educational programmes. The overall thrust of the Commission's recommendations to date is towards greater liberalisation - if not total deregulation - of the retail drinks trade, and the public health perspective appears to have made no impact on this process. The suggestion, for instance, that alcohol should be available for sale at garage forecourts is one which is discussed in the second interim report of the Commission on Liquor Licensing/ From a public health **point** of view this drink-driving connection is one that seems obviously undesirable, but the Commission concludes that it will merely keep it under review.

If the two alcohol policy processes are compared and seen as being ideologically and institutionally in competition with one another, it appears as though the proponents of the neoliberal view are easily defeating their public health adversaries. The National Alcohol Policy of 1996 has been largely ignored, and it is hard to see how the recent Strategic Task Force on Alcohol can be any more successful.

The answer to the third question, therefore, is that Ireland currently has two ongoing policy processes, one driven by a public health concern with reducing alcohol-related damage and the other by a neoliberal concern with liberalising the retailing of drinks. The latter is clearly in the driving seat.

A Way Forward

I shall finish by making two suggestions which might go some way towards realising the ambitions outlined in Holder's paper. While I understand that Ireland is not a temperance culture in the sense discussed above, neither is it

a society in which people are blind to the problems caused by alcohol. It seems to me that one of the important missing ingredients in this mix is the use of media and public relations to hammer home clearly and regularly that there is a connection between levels or patterns of consumption and the prevalence of drink-related problems in this country. Both at national and local level, media can be used to argue that if we make alcohol more accessible and if we keep it relatively cheap, people will almost certainly drink more; and if people drink more, we can expect more problems. The public interest, in this case, would be served best by regulation and control rather than by rampant competition and consumer sovereignty. This is not unique in public policy terms: we all know that Dublin cannot thrive as a city if we allow unfettered access to motorists, for instance. Just as with traffic, public support for alcohol control policies must be built and maintained through the use of media and promotion.

My second point refers to the ludicrous situation whereby we have two parallel and competing policy processes in the alcohol sphere. It is not as though our public policy and administrative systems are so underdeveloped or naive as to make this inevitable; throughout the 1990s the concept of the Strategic Management Initiative (SMI) was devised and put into effect here, containing within it specific ideas for the management of complex policy issues that transcend any single sector of government. Alcohol policy is an obvious "cross-cutting" domain, and it would seem only sensible that structures should be set in place for a single and integrated policy as has been done so successfully in relation to illicit drugs. Indeed, the most straightforward way forward might be to add alcohol onto the policy brief of the National Drug Strategy Team and all the other components of the national drug strategy.

Which of these should come first, the development of popular support for alcohol control systems or the establishment of alcohol policy structures at governmental level? If political leaders wait for popular sentiment to develop on this issue, then the structures may be a long time in coming. Perhaps both

should be tackled simultaneously , although this would demand unusual political courage and leadership.

REFERENCES

Butler, S. (2001) . 'The National Alcohol Policy and the Rhetoric of Health Promotion', *Irish Social Worker,* 19 (1), 4-7.

Butler, S. (2002). *Alcohol, Drugs and Health Promotion in Modern Ireland.* (Dublin: Institute of Public Administration, forthcoming).

Commission on Liquor Licensing (2001). *Interim Report on Liquor Licensing.* (Dublin : Stationery Office).

Commission on Liquor Licensing (2002). *Second Interim Report.* (Dublin: Stationery Office).

Davies, P. and Walsh, D. (1983). *Alcohol Problems and Alcohol Control in Europe.* (London: Croom Helm).

Daly, M. (1997). *The Buffer State: The historical roots of the Department of the Environment.* (Dublin: Institute of Public Administration).

Ferriter, D. (1999). *A Nation of Extremes: The Pioneers in Twentieth-century Ireland.* (Dublin: Irish Academic Press).

Levine, H.G (1992). 'Temperance cultures: concern about alcohol problems in Nordic and English-speaking cultures' in M. Lader, G. Edwards and D. C. Drummond (eds.), *The Nature of Alcohol and Drug Related Problems.* (Oxford University Press), 15-36.

Malcolm, E. (1987). *'Ireland Sober, Ireland Free': Drink and Temperance in Nineteenth-Century Ireland.* (Dublin: Gill and Macmillan).

National Alcohol Policy - Ireland. (1996). (Dublin: Stationery Office).

Room, R. (2001). 'Governing Images in Public Discourse about Problematic Drinking' in N. Heather, T. Peters and T. Stockwell (eds.), *International Handbook of Alcohol Dependence and Problems.* (Chichester: John Wiley and Sons), 33"45-

The Psychiatric Services: Planning for the Future. (1984) . (Dublin: Stationery Office).

Strategic Task Force on Alcohol : Interim Report. (2002). (Dublin: Department of Health and Children).

Justifying drug substitution therapies: The case of methadone maintenance treatment

Jeff Ward

School of Psychology
Australian National University
Canberra ACT 0200, Australia
Email: Jeff.Ward@anu.edu.au

Paper presented at 2nd Annual Conference of the Addiction Research Centre, Trinity College, Dublin, Ireland, 26 September 2002

Introduction

Some time ago, I was told the story of a meeting that took place in a local community, the purpose of which was to decide whether a methadone clinic should be established there. At this meeting, members of the relevant government health authority and medical practitioners wanting to establish the clinic tried to alleviate community concerns about the clinic by talking about the evidence in favour of methadone maintenance and responding to concerns raised during the meeting. Concerns were raised about the possibility of the clinic attracting more heroin users to the area, the effects on local business, the risks associated with discarded needle and syringes, and so on. After long discussion, it appeared that the majority of the audience were convinced that methadone maintenance was an effective treatment for heroin dependence and their fears were assuaged by the arguments that they had heard. Just as the meeting was drawing to a close, one member of the audience raised her hand and wanted to know if methadone was a drug just like heroin. When it was answered, somewhat reluctantly by my informant that, yes, methadone was a drug that acted in ways similar to heroin, the mood of the meeting immediately changed, and, within a short period of time, it became clear that if methadone was a drug just like heroin, then people didn't want a methadone clinic in their community. What is more, they couldn't see how giving people a drug that was just like heroin that they would then be dependent on would be of any benefit anyway.

This story brings into focus the sometimes very different perspectives of those involved in drug treatment and policy formation and members of the concerned community. In many countries around the world the recent focus of academics, clinicians and policy makers has been on reducing the harms associated with the use of psychoactive drugs and not necessarily on eliminating the drug use or dependence itself (although it does not preclude this goal). Those who are opposed to the harm reduction approach see the drug use as the major harm and expect that treatments be focussed on abstinence from all drugs, including, in the case of heroin dependence, methadone. From this perspective, methadone maintenance is often said to simply substitute one drug for another.

Despite having been implemented and evaluated for nearly 40 years, methadone maintenance remains a controversial treatment. It is important then to be clear about what the rationale for methadone maintenance is and to evaluate the treatment in these terms, in the light of the accumulated research literature. However, I will argue that it is also important to examine the viability of the position of the critics of methadone maintenance treatment in the light of the relevant literature on opioid dependence, methadone maintenance treatment and the alternative treatments for heroin dependence, such as detoxification and drug-free residential treatment.

In considering these questions, I will argue that the appropriate comparison condition to the outcomes achieved by methadone maintenance and these other treatments is what would happen in the absence of treatment (Gerstein & Harwood, 1990), not some ideal state wherein all the individuals currently dependent on heroin would suddenly cease heroin use (Hall, 1993).

There have historically been two major rationales put forward for methadone maintenance treatment. The first was put forward by Dole and Nyswander (1965), who argued, on the model of diabetes mellitus, that long term exposure to an opioid, such as heroin, results in a "metabolic deficiency" that requires long term administration of a substitution opioid to manage it. The seebnd, and more widely accepted, rationale for methadone maintenance treatment arose in the 1980s, after the widespread proliferation of and alarm about heroin use in many Western countries. This rationale is usually, but not always, associated with a harm reduction approach to the management of drug problems. According to this point of view, methadone maintenance is justified because the benefits that accrue from the treatment outweigh the risks associated with it for both the recipient of treatment and the community.

In the sections that follow, I will review evidence and arguments pertinent to an evaluation of the criticisms and justifications for methadone maintenance treatment. In doing so, I will begin by outlining the major features of opioid dependence and the harms associated with it. Then, after a brief history of methadone maintenance treatment, I will evaluate the criticism that it *simply* replaces dependence on one drug with dependence on another. The bulk of the remainder of the paper evaluates the evidence concerning the risks and benefits of methadone maintenance treatment, including a consideration of the most effective model of treatment delivery. In doing so, I will establish that methadone maintenance treatment is an effective treatment for heroin dependence in that it reduces heroin use, crime, HIV infection, and mortality. However, it is not a panacea for resolving all of the problems associated with heroin use. It does not prevent the spread of hepatitis C, and it does not lead to improvement in all individuals who present for treatment, although it does lead to improvement in the majority of those who present.

Opioid dependence

The most commonly used illicit opioid in most countries around the world is heroin. Of those who use this drug, approximately one-quarter develop dependence (Anthony & Helzer, 1995). After becoming dependent, a typical picture emerges of daily heroin use, interrupted by periods of detoxification and imprisonment, but with most individuals returning soon after to daily use. This use is continued despite a range of serious legal, health, financial and interpersonal problems that are typically associated with daily heroin use.

Most heroin dependent individuals present for treatment as result of pressure from family and friends, or because they have been arrested for a drug-related offence (Gerstein & Harwood, 1990). In the short term, only a small proportion achieve abstinence as a result of treatment. Over a 20 year period, about one-third of those who enter treatment and are then followed will achieve abstinence, which is approximately the same proportion as those who will die in the same period (Goldstein & Herrera, 1995; Hser, Anglin, & Powers, 1993). The remaining third who continue to use heroin cycle through prisons, treatment programs and daily heroin use well into their 40s and 50s. When not in prison or attending a treatment program, these people use heroin on a daily basis about 40-60% of the time (Maddux & Desmond, 1992).

Illicit heroin use is associated with a range of health and social problems for both the community and the user. People who use heroin are at increased risk of death from overdose, violence, viral infections and alcohol-related morbidity (alcohol dependence being a common comorbid condition in this population; Goldstein & Herrera, 1995; Haastrup & Jepsen, 1984; Hser et al., 1993; Joe & Simpson, 1987; Penicci, Davoli, Rapiti, Abeni, & Forastiere, 1991; Perucci, Forastiere, Rapiti, Davoli, & Abeni, 1992). While tobacco and alcohol are the major causes of drug-related morbidity and mortality, among young adults, opioids are most prominent as causing drug-related deaths. In Australia, for example, death by opioid overdose is a major cause of death among young adults (Laslett & Rumbold, 1998). Death from overdose and injection-related viral infections is less likely among individuals who ingest heroin intranasally or by smoking than among those who inject it. Among those who do inject, heroin users act as an important host population for hepatitis B and C and HIV (Crofts, Thompson, & Kaldor, 1999). People who use heroin are also responsible for a significant proportion of criminal offences, which they commit in order to support the-purchase of heroin (Hall, Bell, & Carless, 1993).

Methadone and Methadone Maintenance Treatment

Methadone is a synthetic opioid substance that has effects in human beings similar to heroin. However, unlike heroin, methadone is easily absorbed from the gut and so can be taken orally, whereas heroin is usually injected. Once absorbed via the gut, methadone has a relatively long elimination half-life (approximately 24-36 hours), making it particularly suitable for managing withdrawal from heroin, which has a much shorter elimination half-life (3-6 hours). As early as 1949, research conducted in the United States identified methadone as a useful agent for detoxifying people addicted to heroin (Joseph, Stancliff, & Langrod, 2000). However, it wasn't until 1964, that Vincent Dole and Marie Nyswander conducted clinical research in New York City to identify a suitable replacement for heroin that methadone was used for longer term treatment (Courtwright, Joseph, & Des Jarlais, 1989; Joseph et al., 2000).

After trying various opioid substances as heroin substitutes, Dole and Nyswander discovered that the most clinically useful drug that suited the purposes of a maintenance treatment program was methadone. The long elimination half-life meant that patients could be dispensed methadone once a day, compared with several times a day in the case of drugs such as morphine and heroin. The oral mode of administration had a number of attractive features associated with it. It obviated the need for injection, but more importantly, it meant that the rapid intoxication experienced after the injection of heroin could be avoided, because when taken orally, methadone is absorbed slowly into the bloodstream. Furthermore, once the person was stabilised on methadone, they appeared not to experience any significant intoxication. Once the successful results of an early series of cases was published (Dole & Nyswander, 1965), followed by further reports of treatment success (Dole, Nyswander, & Warner, 1968; Dole et al., 1969), methadone maintenance treatment was adopted widely in the United States and was soon established in other countries, such as Australia and the United Kingdom (Zador, 2001; Caplehorn & Batey, 1992). However, this initial enthusiasm was soon tempered by criticisms of the treatment that it medicated the disaffected and simply substituted one drug for another (e.g. Nelkin, 1973).

In their rationale for methadone maintenance treatment, Dole and Nyswander viewed opioid dependence as 'a physiological disease characterised by a permanent metabolic deficiency' which was best treated by administering 'a sufficient amount of drug to stabilise the metabolic deficiency' (Dole & Nyswander, 1965). Stabilisation was achieved by providing high or 'blockade' daily doses of oral methadone, which prevented withdrawal symptoms, removed the craving for heroin, and blocked its euphoric effects if the person injected heroin. While patients were maintained on methadone, they could also take advantage of the rehabilitative services that were an integral part of the program (Dole & Nyswander, 1967). The key features of the Dole and Nyswander formulation then were long-term treatment, high doses of methadone and a comprehensive set of psychological and social services to assist the person to reintegrate into mainstream society.

In the process of the popularisation of methadone maintenance in the United States, the treatment underwent a number of important changes that compromised its effectiveness (Gerstein & Harwood, 1990). Most of these changes were made in response to the criticisms of the Dole and Nyswander metabolic deficiency hypothesis which was widely thought to be implausible. As a result, the treatment goal of many programs shifted from long-term maintenance towards achieving abstinence from all opioid drugs, including methadone, within a period of a few years. The average dose of methadone also declined from the high doses favoured by Dole and Nyswander to the much lower doses that were required to simply avert withdrawal symptoms. Furthermore, as a result of funding cuts, the extent of ancillary services declined.

More recently, national surveys of treatment practices in the United States (D'Aunno & Vaughn, 1992; General Accounting Office, 1990) and literature reviews pertinent to the way methadone treatment is delivered have recommended changes in treatment practice to bring it back in line with the original Dole and Nyswander formulation (Gerstein & Harwood, 1990; Institute of Medicine, 1995; Ward, Mattick, & Hall, 1992). Recent evidence suggests that there is a return to the original Dole and Nyswander formulation, in using higher methadone doses and having an orientation toward long- rather than short-term treatment (D'Aunno, Folz-Murphy, & Lin, 1999). The evidence concerning the effectiveness of intensive psychosocial services remains mixed and debate continues on this issue.

While many countries adopted a model of methadone maintenance treatment that was based on daily attendance at a specialist clinic with supervised ingestion of methadone, in the United Kingdom, a different model developed which involved prescribing by generalist medical practitioners and pharmacy dispensing of both injectable and oral methadone (Zador, 2001). Recent controlled trials in the United States of a similar model developed in the United States support the effectiveness of this model of methadone treatment, at least for patients who are responding well to treatment (Fiellin et al., 2001; King et al., 2002).

Controversies About Methadone Maintenance

Despite the evidence attesting to its effectiveness, there are critics who have strong moral reservations about methadone maintenance treatment. These moral reservations are concerned with whether it is justifiable to dispense a drug of dependence to drug dependent individuals, especially within the Dole and Nyswander model of long-term maintenance. However, while there are still a few who subscribe to the original Dole and Nyswander conceptualisation of opioid dependence as a metabolic disease (but restated as a long term opioid receptor perturbation; e.g. Dole, 1988; Kreek, 1996), the more usual contemporary justification is a pragmatic utilitarian one - methadone maintenance is justified because the benefits far outweigh the risks associated with it.

While accepting Hume's argument that statements about what one ought to do cannot be inferred from statements about what is the case, Hall, Ward and Mattick (1998) nonetheless argue that empirical evidence is relevant to the evaluation of moral principles, as do many modern ethicists (eg. Rachels, 1986). If we begin with the pragmatic utilitarian justification for methadone maintenance treatment, the role of empirical evidence is very clear. Methadone maintenance treatment is justified, on utilitarian moral grounds, if the benefits of the treatment to both the patients and the community outweigh its costs. It is then important to demonstrate that methadone maintenance treatment reduces the harms associated with dependent heroin use without incurring greater harms to its recipients and the community.

Some opponents of methadone maintenance argue that methadone maintenance treatment fails to achieve these goals in that substantial numbers of methadone patients continue to inject illicit drugs and engage in criminal activity. Research evidence on the outcome of methadone maintenance is clearly relevant to an evaluation of these competing claims.

However, an appraisal of the costs and benefits associated with methadone maintenance treatment does not address the key objection that methadone maintenance is unacceptable because it simply 'replaces one drug of dependence with another'. According to this point of view the only viable outcome from any treatment for opioid dependence is abstinence from all opioid drugs, including methadone. Hall et al. (1998) argue that empirical evidence is also relevant to an evaluation of this moral objection for the reason outlined by Kant in the late eighteenth century. If it can be shown that a moral obligation is empirically impossible, or at least extremely difficult to meet, there is a good reason to modify it. The moral claim that abstinence is the only acceptable outcome for treatments for opioid dependence depends upon the assumption that abstinence is an attainable state for a majority of opioid dependent people. There is a considerable body of research evidence that contradicts this assumption. This research includes the studies reporting the outcome of opioid detoxification and drug-free treatment, and a small number of studies of the 'natural history' of opioid dependence (e.g. Gerstein & Harwood, 1990; Stimson & Oppenheimer, 1982; Thorley, 1980; Vaillant, 1966, 1973). These studies clearly show that the majority of participants relapse to heroin use shortly after detoxification.

A related criticism of methadone maintenance treatment is that it prolongs opioid dependence by maintaining people on methadone when they otherwise would become drug free. It was this criticism that led to a shortening of the duration of treatment during the 1970s and 1980s. Again empirical evidence is relevant to this claim. Long-term follow-up studies have found equivalent rates of abstinence among untreated individuals and individuals who have been in methadone maintenance treatment (Goldstein & Herrera, 1995; Hser et al., 1993). The same is true for people who enter methadone maintenance treatment and drug free treatment (Maddux & Desmond, 1992). This evidence suggests that methadone maintenance does not prolong opioid dependence or impede eventual abstinence.

The difficulty of achieving abstinence does not preclude abstinence as a viable treatment goal for opioid-dependent people. Drug-free treatments, which aim to achieve abstinence, clearly have a place in the treatment response for those opioid-dependent people who want to become abstinent and find this form of treatment acceptable.

However, it is clear from the high failure rate of abstinence-oriented programs that there is no compelling moral reason for insisting that abstinence from all opioids is the *only* acceptable treatment goal for those who are opioid dependent, especially in the case of those who have tried and failed to achieve abstinence. To insist on such a goal is to condemn those dependent on heroin to a high risk of death, imprisonment and chronic disease.

THE BENEFITS OF METHADONE MAINTENANCE TREATMENT

In the sections that follow, I will review the evidence concerning the effectiveness of methadone maintenance treatment with reference to the major harms associated with opioid dependence. In doing so, I will evaluate the claim put forward as part of the utilitarian justification for methadone maintenance treatment; that it reduces heroin use and thereby the morbidity and mortality associated with its use. Given the large number of studies that have been published, this review will necessarily be brief, and so I will focus in detail on recent and indicative studies. A more detailed coverage of this literature can be found in Ward, Mattick and Hall (1998e).

Heroin Use And Crime

There have been seven randomised controlled trials in which methadone maintenance has been compared with a non-drug substitution control group for either part or all of the study period (Dole et al., 1969; Gunne & Grönbladh, 1981; Newman & Whitehill, 1979; Sees et al., 2000; Strain, Stitzer, Liebson, & Bigelow, 1993; Vanichseni, Wongsuwan, Staff of the BMA Narcotics Clinic No. 6, Choopanya, & Wongpanich, 1991; Yancovitz **et al., 1991).** Methadone maintenance has also been used as a comparison treatment in trials investigating the effectiveness of other pharmacotherapies such as buprenorphine (Mattick, Oliphant, Ward, & Hall, 1998), **but these** trials do not bear directly on the assessment of the effectiveness of **methadone** maintenance treatment and will not be discussed further here.

All of **the** randomised controlled trials have found significant effects in favour of the provision of methadone in terms of reductions in heroin use and/or crime. The three earliest trials (Dole et al., 1969; Gunne & Grönbladh, 1981; Newman & Whitehill, 1979) together indicate that methadone maintenance retained patients in treatment and led to large reductions in heroin use and likelihood of reimprisonment, when compared with untreated controls. The trial reported by Strain et al. (1993) found methadone maintenance led to less heroin and cocaine use than a placebo treatment. The trials by Vanichseni et al. (1991) and Yancovitz et al. (1991) have found smaller effects and have followed participating subjects for only short study periods.

These smaller effect sizes are consistent with the findings of a meta-analysis recently published by Prendergast, Podus and Chang (2000), who reported that the size of the effect in studies of methadone maintenance treatment has diminished over the past three decades. Likely reasons for this diminishing effect size are less than adequate implementation of the treatment and changes in the drug use patterns of the patients being treated.

In a study that bears on a number of questions raised in this paper, Sees et al. (2000) compared 180-day methadone-assisted detoxification with compulsory intensive psychosocial services and aftercare with standard methadone maintenance treatment. The study provides evidence pertinent to answering questions about the effectiveness of methadone maintenance treatment, about how long it should be provided for and about the role of intensive psychosocial services in its effectiveness.

The question that Sees et al. set out to answer was whether, over a 12-month period, equivalent outcomes to methadone maintenance could be achieved in terms of drug use, HIV risk behaviour and psychosocial functioning by offering a 6-month methadone detoxification program that included intensive psychosocial services and aftercare for the subsequent 6 months. After being stratified by sex and ethnicity, participants in the study were randomly assigned to receive either long-term methadone detoxification (n=88) or methadone maintenance (n=91). Both groups were stabilised on an average of approximately 85mg per day of methadone. After four months of maintenance the methadone detoxification group was detoxified in a gradual fashion over the subsequent two months. Participants in the detoxification program were required to attend weekly individual and group psychotherapy and education sessions. If there was evidence of cocaine use, they were also required to attend a weekly therapy group for cocaine users. By contrast, in the methadone maintenance group, participants were required to attend a weekly group for the first six months, after which attendance was voluntary. They also attended for monthly individual therapy for the duration of the study. Aftercare for the detoxification group consisted of continued therapy and assistance with criminal, medical and social service referrals. All participants were assessed at baseline and then monthly for the 12 months of the study on all the study outcomes and on their exposure to treatment components received in the previous month from both study and non-study treatment programs.

The analysis of the data for this study was done an intention-to-treat basis. The first finding of interest was that retention between the two groups was different with the detoxification group dropping out of treatment more quickly than the methadone group.

While approximately 70% of the methadone maintenance group remained in treatment after one year, most of the members of the detoxification group left treatment once methadone provision began to be tapered. This shows, as did the Newman and Whitehill (1979) and Strain et al. (1993) placebo-controlled trials, that methadone is an essential part of a methadone maintenance program and that intensive services are not attractive when it is absent.

Heroin use was analyzed in terms of whether there was any evidence of heroin use in the previous month as measured by urine test or self-report and in terms of the number of days of heroin use reported for the previous month. Both of these analyses revealed that there were no differences between the two groups for the first four months of the study, but once methadone reduction began in the detoxification group differences emerged and persisted throughout the subsequent follow-up period. These findings for heroin use, were confirmed by the findings for HIV risk, behaviour. Again there were differences between the two groups in injection-related risk behaviour once detoxification had taken place.

Overall the study by Sees et al. suggests that methadone maintenance treatment is more effective than methadone detoxification after four months maintenance and that the provision of intensive psychosocial services is not sufficient to replace the daily administration of methadone. The authors of the paper concluded that: "the current study does not provide support for diverting resources from methadone maintenance to long-term detoxification, no matter how ideologically attractive the notion of a time limited treatment for opioid abusers is." (p. 1309)

These findings from randomised controlled trials are supported by a much larger body of cohort and cross sectional studies (e.g. Anglin & McGlothlin, 1984; Bale et al., 1980; Ball &_Ross, 1991; Gossop, Marsden, Stewart, & Rolfe, 2000; Hubbard, Craddock, Flynn, Anderson, & Etheridge, 1997; Hubbard et al., 1989; Simpson & Sells, **1982).** The observational studies of the effectiveness of methadone maintenance treatment support the results of the randomised controlled trials in consitently showing that methadone maintenance reduces heroin use and criminal activity.

HIV

As well as reducing heroin use and crime, an important area in which methadone maintenance treatment is expected to be effective is in the reduction of HIV infection among heroin users. More recently, concern has also been raised about the spread of hepatitis C in this population. HIV and HCV are the two viruses most often transmitted among injecting drug users as a result of sharing injecting equipment (Hagan & Des Jarlais, 2000). The evidence pertaining to HCV is reviewed in the next section below.

There are two kinds of evidence relevant to a consideration of the role of methadone maintenance programs in reducing the spread of HIV: studies that directly evaluate the protective effect of methadone treatment in terms of HIV seroprevalence rates, and studies that examine whether methadone maintenance treatment reduces those drug use behaviours implicated in the spread of HIV among injecting drug users. Recent reviews have consistently concluded that methadone maintenance treatment is effective in reducing the spread of HIV and in reducing the injection-related behaviours known to transmit it (Marsch, 1998; Sorensen & Copeland, 2000; Ward, Mattick, & Hall, 1998a). The studies reviewed here are indicative of the much larger body of evidence surveyed in these reviews.

Initial evidence for the effectiveness of methadone maintenance in preventing HIV infection came from retrospective studies that found an association between length of time in methadone treatment and low rates of seropositivity (Abdul-Quader et al., 1987; Chaisson et al., 1989; Marmor et al., 1987; Novick et al., 1990; Schoenbaum et al., 1989). These findings were confirmed by prospective studies that showed that entry to methadone maintenance treatment led to reduced rates of HIV infection compared with individuals who either did not enter, or who left treatment (Blix & Grönbladh, 1988; Des Jarlais, 1992; Institute of Medicine, 1995; Metzger et al., 1993; Moss et al., 1994; Serpelloni et al., 1994). Other evidence suggests that these findings, can be attributed to the fact that patients who remain in methadone maintenance are less likely to engage in risk behaviours compared with those who leave methadone treatment early or do not enter treatment at all (Ball & Ross, 1991; Brown, Chu, Nemoto, Ajuluchukwu, & Primm, 1989; Caplehorn & Ross, 1995; Darke, Hall, & Carless, 1990; Klee, Faugier, Hayes, & Morris, 1991; Longshore, Hsieh, Danila, & Anglin, 1993; Selwyn, Feiner, Cox, Lipshutz, & Cohen, 1987; Stark & Muller, 1993). Both these lines of evidence are important in concluding that methadone maintenance treatment prevents to the spread of HIV in populations of heroin injectors.

Hepatitis C

While the published evidence supports the conclusion that methadone maintenance treatment is effective in reducing HIV infection among heroin users, the evidence is less sanguine in relation to the hepatitis C virus (HCV). In recent years, it has been discovered that HCV has been a "sleeping" health issue for injecting drug users (Novick, 2000) for some time. However, the transmission dynamics of HIV and HCV are different, with HCV being more readily transmitted than HIV (Crofts et al., 1999; Hagan & Des Jarlais, 2000), and so conclusions drawn from studies of methadone maintenance and HIV cannot be generalised to HCV. To date, studies examining the effectiveness of methadone maintenance in preventing infection with HCV have found no such effect (Crofts, Nigro, OMan, Stevenson, & Sherman, 1997).

This is not surprising given the high rates of infection seen at intake to treatment. For those not yet infected, as Novick (2000) has observed, even occasional injection drug use can cause HCV infection, because of the high likelihood of transmission of HCV. This means that methadone maintenance is unlikely to protect the substantial proportion of patients who continue to use heroin at least sporadically.

Drug-related Mortality

As already noted, opioid dependence is associated with a high risk of mortality, and, as a result, mortality is an important outcome to consider in evaluating the effectiveness of methadone maintenance. Common causes of death among the opioid dependent are drug overdose, cirrhosis, endocarditis, violence, AIDS-related illnesses and, more recently, HCV-related liver disease (Appel, Joseph, & Richman, 2000; Haastrup & Jepsen, 1984; Hser et al., 1993; Joe & Simpson, 1987). Compared to untreated opioid dependent individuals, those receiving methadone maintenance have a reduced risk of dying (Appel et al., 2000; Caplehorn, Dalton, Cluff, & Petrenas, 1994; Davoli et al., 1993; Desmond & Maddux, 2000; Gearing & Schweitzer, 1974; Grönbladh, Öhlund, & Gunne, 1990). For example, Grönbladh et al. (1990), in a six year follow-up of individuals who participated in the Swedish randomised controlled trial (Gunne & Grönbladh, 1981), reported that untreated controls had a death rate 73 times that expected for their age group, while none of the subjects who had received methadone treatment had died. In a case-control study of overdose deaths among 4200 methadone clients in Rome during the period 1980-1988, Davoli and colleagues (1993) found that individuals who left treatment were eight times more likely to die during the year after they left compared with clients who stayed.

More **recently, Appel et al.** (2000) reported the results of a study of mortality during and after methadone treatment for a cohort of patients described by Dole and Joseph (1978). **The** sample consisted of 1,544 patients admitted to methadone maintenance in **two cohorts, one** in 1966-1967 and the other in 1972. The study conducted in 1981 examined causes of death and death rates for the ten-year period 1966-1976. During this **time, there** were 176 deaths among the 1544 patients. Of these 93 deaths occurred during methadone maintenance and 83 after methadone maintenance. Ignoring cause of death, the post-treatment death rate among the former patients was double that of those receiving methadone maintenance treatment. When these deaths were examined according to cause of death, it was found that only 2 opiate-related deaths occurred during treatment, while 36 occurred out of treatment. This represented a 51 **times** greater risk of dying from opiate-related causes after leaving methadone maintenance (15.3 deaths per 1000 years), when compared with those remaining in treatment (0.3 deaths per 1000 years).

As Desmond and Maddux (2000) have recently observed in a review of this literature, these studies have been conducted in four different countries by different researchers, and so we can be more confident in concluding that methadone maintenance reduces the high risk of mortality associated with heroin use. As Desmond and Maddux further note, this effect is mainly restricted to mortality due to heroin overdose, a conclusion that is further supported by the findings reported by Appel in the same year. Finally van Ameijden, Langendam and Coutinho (1999) have recently reported finding a dose-response relationship between daily methadone dose and risk for mortality. Although lower doses (<55mg) were effective in reducing mortality, there was a threefold reduction in mortality for those on higher doses when compared to those on lower doses.

The benefits of **methadone maintenance treatment: Conclusions**

The findings of the review of the literature in the previous sections are that methadone maintenance treatment is effective in reducing heroin use, crime, drug-related mortality and HIV infection among heroin dependent individuals. However, it is not effective in reducing the spread of HCV in this population. These conclusions are consistent with more extensive reviews conducted by my colleagues and I (Ward et al., 1992, 1998e) and with reviews conducted by other reviewers (Des Jarlais, 1994; Gerstein & Harwood, 1990; Marsch, 1998; Sorensen & Copeland, 2000). The review reported by Marsch is unique in that, unlike all the other reviews, which were qualitative in nature, a quantitative approach was taken using meta-analysis. Despite inclusion criteria restricting the selection of studies to those that employed fixed dosage schedules irrespective of patients' heroin use (a procedure makes little clinical sense), Marsch found that methadone maintenance treatment was successful in reducing heroin use, drug-related and to a lesser extent non drug-related crime, and HIV risk behaviour. The biggest effect found in the studies reviewed was for drug-**related crime.**

GETTING THE FORMULATION RIGHT

As I have noted above, observational studies of the effectiveness of methadone maintenance treatment suggest that some methadone clinics are more effective than others. The key variables that have been identified as being important in this variation are the three that were identified as being central to the Dole and Nyswander model of treatment - methadone dose, the duration of treatment and adjunctive psychosocial services.

In this section, I review the evidence concerning these treatment characteristics. I also review the evidence pertinent to a consideration of injectable verus oral methadone maintenance.

Methadone Dosage

The original formulation for methadone maintenance treatment, as devised by Dole and Nyswander (1965), included high doses of methadone. The use of high maintenance doses of methadone (>60 mg per day) was originally meant to achieve three purposes: to prevent withdrawal symptoms, to induce a sufficient cross-tolerance to heroin to prevent intoxication, and to prevent craving for heroin. However, in many clinics lower doses have been prescribed, and as Leavitt, Shinderman, Maxwell and Paris (2000) have recently remarked, this has more to do with philosophical, psychological and moral reasons than empirical evidence. The evidence, which consists of both randomised controlled trials and observational studies, clearly shows that higher doses of methadone lead to longer stays in treatment and less heroin use (e.g. Banys, Tusel, Sees, Reilly, & Delucchi, 1994; Caplehorn, Bell, Klein, & Gebski, 1993; Hartel et al., 1995; Maddux, Prihoda, & Vogtsberger, 1997; Magura, Nwakeze, & Demsky, 1998; Strain, Bigelow, Liebson, & Stitzer, 1999; Strain et al., 1993). In a recent study, Preston, Umbricht and Epstein (2000) have found that increasing methadone dose in response to ongoing heroin use is as effective as paying patients not to use heroin. A more extensive review of this literature can be found in Ward, Mattick and Hall (1998d).

Duration of Treatment

There is substantial evidence that longer stays in methadone maintenance treatment are associated with better treatment outcomes in terms of less heroin use and crime (for recent reviews see Magura & Rosenblum, 2001; Prendergast et al., 2000; Ward, Mattick, & Hall, 1998b). However, the important question for this paper is whether varying the length of treatment, as originally formulated by Dole and Nyswander, improves or detracts from the effectiveness of methadone maintenance treatment. The evidence clearly suggests that arbitrarily restricting the length of treatment leads to poor post-treatment outcomes for most patients (Anglin, Speckart, Booth, & Ryan, 1989; McGlothlin & Anglin, 1981; Rosenbaum, Irwin, & Murphy, 1988). More light is shed on this issue when we consider the evidence concerning reasons for leaving treatment and post-treatment success. Some individuals leave treatment before they have shown the relevant prognostic indicators of post-treatment success, such as signs of psychosocial stabilization.

These individuals are more likely to return to regular heroin use than patients who do show such signs (Cushman, 1978; Simpson, 1981; Stimmel, Goldberg, Cohen, & Rotkopf, 1978). However, the accumulated evidence on this issue suggests that few patients show such signs and most who leave treatment do so when these signs suggest that it would be better for them to remain in treatment (Magura & Rosenblum, 2001). Considered as a whole then, this evidence suggests that methadone treatment with an orientation toward long term maintenance, as originally formulated by Dole and Nyswander, is the most appropriate orientation for the majority of patients who enter it.

Psychosocial Services

Given the well-documented high levels of medical, psychiatric and social problems found among opioid users (Darke, 1998; Ward, Mattick, & Hall, 1998c), there is an obvious case to argue that the provision of medical and psychosocial services in methadone maintenance programs is part of a thoughtful response to problems created by opioid use. Therefore, as well as providing methadone, it is also thought to be appropriate to provide treatment and assistance to address these factors. Such services were part of the original Dole and Nyswander formulation. While the rationale for such services seems reasonable, the question remains whether the effectiveness of methadone maintenance treatment is improved by providing a full range of ancillary services, such as medical treatment, addiction counseling, psychotherapy, and so on, or whether there is an optimal level of service provision. These services often comprise the most expensive components of a methadone treatment program, and so it is important to ask how much more effective treatment becomes when these services are provided and how much it costs to provide them.

There is evidence supporting the effectiveness of drug counseling (Ball & Ross, 1991; **Magura,** Nwakeze, Sung-Yeon, & Demsky, 1999; McLellan, Amdt, Metzger, Woody, & O'Brien, 1993; McLellan, Woody, Luborsky, & Goehl, 1988), psychotherapy for comorbid psychiatric problems (Woody, McLellan, Luborsky, & O'Brien, 1995; Woody et al., 1984), and primary health care services (Ball & Ross, 1991; McLellan **et al., 1994;** Umbricht-Schneiter, Ginn, Pabst, & Bigelow, 1994) in improving outcomes from methadone maintenance treatment. Another way in which this question has been examined has been to examine whether varying the intensity of ancillary services results in variations in the effectiveness of treatment. In one of the best studies designed to address this issue, McLellan et al. (1993) randomized 92 male **war** veterans to minimal, standard or enhanced methadone maintenance treatment and found increasing improvements in outcome across the three levels of service. In 1997, Kraft, Rothbard, Hadley, McLellan and Asch (1997) examined the costs associated with the three levels of services in relation to the outcomes achieved. Kraft et al. concluded that there is a level of service provision, below which treatment becomes **more,** rather than less, expensive.

The results suggested that the provision of counseling services in addition to daily methadone is the most cost effective, with the provision of more elaborate services (psychotherapy, vocational counseling and so on) leading to only marginal improvements in outcome for much greater cost.

More recently, Avants et al. (1999) randomised 291 patients to receive, for 12 weeks, either a two-hour per week, cognitive behavioural therapy group, or a five hour per day, high intensive program of groups that addressed a range of issues, including drug use, health issues, and living and social skills. Outcome was assessed on a range of indicators measured by self-report using the Addiction Severity Index and, in the case of heroin and cocaine use, by urine test. Overall both groups showed improvement at the end of the 3-month study period and at 6-month follow-up after program completion, but there were no differences between the two groups at either time. The only differences were for those patients who were new to methadone maintenance and for them participation in the lower intensity program led to better retention and higher rates of abstinence at six-month follow-up. When asked prior to the study which program participants preferred, the majority (78%) nominated the low intensity program. This study guarded against the problem of patients not receiving the services delivered by ensuring compliance. However, as the authors note, participants in this study received these services regardless of whether they needed them or not, so the question of which services are appropriate for which patient was not addressed.

At this time, the evidence suggests that offering counseling and medical care improve outcomes from methadone maintenance treatment. However, providing high intensity programs with a range of other services does not seem to improve outcome over and above what is achievable with this level of service provision. Small improvements may be observed, but given the ever-increasing demand for treatment, resources may be better spent in providing more treatment places with lower levels of services than more intensive services for fewer patients.

INJECT ABLE VERSUS ORAL METHADONE MAINTENANCE

Methadone can be dispensed as either an oral or an injectable preparation. Injectable methadone is prescribed routinely in the United Kingdom but is not available in most other countries, although this is changing (Zador, 2001). The main rationale for the provision of injectable methadone is that it will attract into treatment individuals who would not otherwise present for oral methadone. This assumption has yet to be tested empirically and given the added risks associated with injecting rather than orally ingesting methadone, it is worthy of investigation. However, assuming that injectable methadone maintenance is a viable alternative to an oral regimen, the question arises as to whether one mode of administration is more effective than the other.

Strang et al. (2000) recently published the findings of a randomised controlled trial in which 40 applicants for methadone treatment were assigned to receive supervised oral methadone or supervised injectable methadone. The practice of supervised injecting is unusual for the United Kingdom, where methadone ampoules are usually dispensed at a pharmacy. This trial was prompted by the Swiss experience in running such facilities. Similar to the findings reported much earlier by Hartnoll et al. (1980), who compared oral methadone with injectable heroin in the United Kingdom, the study found no differences between the two groups in heroin or other drug use six months after treatment commenced. There were no differences in retention between the two groups. However, patients assigned to the supervised injectable condition reported being more satisfied with treatment than those assigned to the oral methadone group. Strang and colleagues also assessed the comparative cost of the medication and provision of services and found that the cost of the injectable methadone program was approximately 4 to 5 times higher than the oral methadone program. On the basis of the findings of this study we can conclude that injectable methadone is as effective as oral methadone and leads to greater patient satisfaction, but that the cost involved is much higher. Only longer term studies would be able to identify whether the increase in satisfaction translates into better retention rates.

RISKS ASSOCIATED WITH METHADONE MAINTENANCE TREATMENT

As has been shown in the previous sections, methadone maintenance treatment reduces heroin use, crime, overdose mortality and the spread of HIV. However, as with most other pharmacotherapies employed in modern medicine, there are risks associated with the prolonged use of methadone that have to be considered in arriving at definitive conclusions about the benefits of methadone maintenance. Nies (1990) summarises the nature of this evaluation as follows: "The utility of a regimen can be defined as the benefit it produces plus the dangers of not treating the disease minus the sum of the adverse effects of therapy "(p. 74). In this section, I consider the safety of the long-term administration of methadone, the risk of death associated with the induction phase of treatment and problems created by the diversion of methadone from those to whom it has been prescribed.

Safety of Long Term Methadone Administration

The main side effects of taking methadone on a daily basis are increased perspiration and constipation (Joseph et al., 2000). An investigation of the consequences of long-term methadone administration among a cohort of patients in New York City who had been in treatment for ten years or more found no adverse effects as a result of treatment (Novick et al., 1993).

However, it has to be acknowledge that 'street lore' about methadone maintains the view that it is associated with a range of ills that vary from non-specific aches and pains through to devitalising previously vital individuals (Bourgois, 2000; Hunt, Lipton, Goldsmith, Strug, & Spunt, 1985-86) and that this ethnographic literature contradicts in some ways the more objective medical literature.

Mortality During the Induction Phase of Treatment

The first two weeks of methadone treatment has been found to be a time when there is an increased risk of death due to methadone overdose (Humeniuk, Ali, White, Hall, & Farrell, 2000). In Australia, most of these deaths are associated with the concomitant use of other central nervous system depressants. However, rapid escalation of methadone dose during the first days of treatment is also implicated (Drummer, Opeskin, Syrjanen, & Cordner, 1992). These deaths are most readily avoided by the proper training of medical practitioners involved in methadone prescribing and by educating drug users about the safe use of methadone (Ali & Quigley, 1999).

Diversion of **Methadone**

Another risk of methadone maintenance treatment is the diversion of methadone to persons other than the patient in treatment. Methadone, especially if dispensed in a take-home manner, can be given away or sold to other people for their own use. The main risk associated with the use of diverted methadone is death by overdose. For example, an increase in the availability of methadone in Manchester led to a parallel increase in deaths attributed to diverted methadone (Cairns, Roberts, & Benbow, 1996). Similar results have been reported from Germany (Heinemann, Iwersen-Bergmann, Stein, Schmoldt, & Püschel, 2000) and Switzerland (Perret, Déglon, Kreek, Ho, & Harpe, 2000). However, as Bell and Zador (2000) have observed this risk varies according to the extent to which take-home methadone is made available. For example, heroin use is the major cause of opioid-related death in Australia where take-home methadone is relatively restricted, whereas in the United Kingdom, which has a more liberal take-home dispensing policy, methadone accounts for about half the opioid related deaths (Bell & Zador, 2000). As Bell (2000) has observed, methadone programs that allow overly liberal take-away methadone will ultimately threaten methadone maintenance as a viable treatment modality. After considering this issue, the United States Institute of Medicine (1995) concluded that methadone diversion is a serious concern, but not one that would warrant restricting the availability of an effective treatment to those in need. Take-home methadone for stable patients is a necessary part of treatment for individuals who find it difficult to attend on a daily base for supervised dispensing (e.g. mothers of young children, employed patients, the chronically ill).

CONCLUSIONS

In this paper, I have reviewed the evidence pertinent to a consideration of the effectiveness of methadone maintenance treatment in the light of the moral justification for and the moral objections to this form of treatment. This evidence suggests that methadone maintenance treatment is effective in reducing heroin use, crime, drug-related mortality and HIV. However, it does not appear to be effective in the spread of HCV among injecting opioid users. In achieving these outcomes, methadone maintenance does not prolong dependence any longer than would occur in the absence of treatment or in cases where the person enters some other form of treatment. The formulation of methadone maintenance originally developed by Dole and Nyswander is supported by the available evidence. The evidence clearly supports the provision of higher rather than lower doses of methadone, and longer rather than shorter periods of treatment. It is less clear on the role of ancillary services. It would appear, on the available evidence, that highly intensive services are *not* warranted as a part of routine methadone maintenance treatment. Drug counselling and primary health care services nonetheless improve effectiveness.

Methadone is generally safe when used as a long-term maintenance medication. However, there are risks associated with the first two weeks of treatment and with diverted methadone in terms of an increased risk of death due to methadone overdose. These risks are small compared with the benefits that accrue from making the treatment available, and can be minimized by the proper training of medical practitioners and by restricting take-home methadone to those patients who are managing their medication responsibly. Education of patients and illicit drug users about the safe use of methadone would also help with both these problems. In conclusion, the accumulated results of nearly four decades of research suggests that methadone maintenance treatment is an effective treatment for opioid dependence, and **that** its widespread application throughout the world is a good example of an evidence-based intervention for the treatment of drug dependence.

REFERENCES

Abdul-Quader, A. S., Friedman, S. R., Des Jarlais, D., Marmor, M. M., Maslansky, R., & Bartelme, S. (1987). Methadone maintenance and behaviour by intravenous drug users that can transmit HIV. *Contemporary Drug Problems,* 74,425-434.

AH, R. L., & Quigley, A. J. (1999). Accidental drug toxicity associated with methadone maintenance treatment. *Medical Journal of Australia, 170,* 100-101.

Anglin, M. D., & McGlothlin, W. H. (1984). Outcome of narcotic addict treatment in California. In F. M. Tims & J. P. Ludford (Eds.), *Drug abuse treatment evaluation: Strategies, progress, and prospects* (pp. 106-128). NIDA Research Monograph, 51. Maryland: National Institute on Drug Abuse.

Anglin, M. D., Speckart, G. R., Booth, M. W., & Ryan, T. M. (1989). Consequences and costs of shutting off methadone. *Addictive Behaviors, 14,* 307-326.

Anthony, J. C, & Helzer, J. E. (1995). Epidemiology of drug dependence. In M. T. Tsuang & M. Tohen & G. E. Zahner (Eds.), *Textbook in psychiatric epidemiology* (pp. 361-406). New York: Wiley-Liss.

Appel, P. W., Joseph, H., & Richman, B. L. (2000). Causes and rates of death among methadone maintenance patients before and after the onset of the HIV/AIDS epidemic. *Mount Sinai Journal of Medicine, 67,* 444-451.

Avants, S. K., Margolin, A., Sindelar, J. L., Rounsaville, B. J., Schottenfeld, R., Stine, S., Cooney, N. L., Rosenbeck, R. A., Shou-Hua, L., & Kosten, T. R. (1999). Day treatment versus enhanced standard methadone services for opioid-dependent patients: A comparison of clinical efficacy and cost. *American Journal of Psychiatry, 156,* 27-33.

Bale, R. N., Van Stone, W. W., Kuldau, J. M., Engelsing, T. M. J., Elashoff, R. M., & Zarcone, V. P. (1980). Therapeutic communities vs methadone maintenance. A prospective controlled study of narcotic addiction treatment: Design and one-year follow-up. *Archives of General Psychiatry, 37,* 179-193.

Ball, J. C, & Ross, A. (1991). *The effectiveness of methadone maintenance treatment: Patients, programs, services, and outcome.* New York: Springer-Verlag.

Banys, P., Tusel, D. J., Sees, K. L., Reilly, P. M., & Delucchi, K. L. (1994). Low (40 mg) verus high (80 mg) dose methadone in a 180-day heroin detoxification program. *Journal of Substance Abuse Treatment, 11,* 225-232.

Bell, J. (2000). Quality improvement for methadone maintenance treatment. *Substance Use and Misuse, 35,* 1735-1756.

Bell, J., & Zador, D. (2000). A risk-benefit analysis of methadone maintenance treatment. *Drug Safety, 22,* 179-190.

Blix, O., & Grönbladh, L. (1988). AIDS and IV heroin addicts: The preventive effect of methadone maintenance in Sweden. Paper presented to 4th International Conference on AIDS, Stockholm, 1988.

Bourgois, P. (2000). Disciplining addictions: The bio-politics of methadone and heroin in the United States. *Culture, Medicine and Psychiatry, 24,* 165-195.

Brown, L. S., Chu, A., Nemoto, T., Ajuluchukwu, D., & Primm, B. J. (1989). Human immunodeficiency virus infection in a cohort of intravenous drug users in New York City: Demographic, behavioral, and clinical features. *New York State Journal of Medicine, 89,* 506-510.

Cairns, A., Roberts, I. S. D., & Benbow, E. (1996). Characteristics of fatal methadone overdose in Manchester, 1985-94. *British Medical Journal, 313,* 264-265.

Caplehorn, J. R. M., & Batey, R. G. (1992). Methadone maintenance in Australia. ***Journal of Drug Issues, 22,* 661 -678.**

Caplehom, J. R. M., Bell, J., Klein, D. G., & Gebski, V. J. (1993). Methadone dose and heroin use during maintenance treatment. *Addiction, 88,* 119-124.

Caplehorn, J. R. M., Dalton, M. S. Y. N., Cluff, M. C, & Petrenas, A. (1994). Retention in methadone maintenance and heroin addicts' risk of death. ***Addiction, 89,* 203-207.**

Caplehorn, J. R. M., & Ross, M. (1995). Methadone maintenance and the likelihood **of risky needle sharing. *International Journal of the Addictions, 30,* 685-698.**

Chaisson, R. E., Bacchetti, P., Osmond, D., Brodie, B., Sande, M. A., & Moss, A. R. (1989). Cocaine use and HIV infection in intravenous drug users in San **Francisco. *Journal of the American Medical Association, 261,* 561-565.**

Courtwright, D., Joseph, H., & Des Jarlais, D. (1989). *Addicts who survived: An oral **history of narcotic use in America 1923-1965.* USA: University of Tennessee** Press.

Crofts, N., Nigro, L., OMan, K., Stevenson, E., & Sherman, J. (1997). Methadone maintenance and hepatitis C virus among injecting drug users. *Addiction, 92,* 999-1005.

Crofts, N., Thompson, S., & Kaldor, J. (1999). *Epidemiology of hepatitis C virus.* Canberra: Commonwealth of Australia.

Cushman, P. (1978). Abstinence following detoxification and methadone maintenance **treatment. *American Journal of Medicine, 65,* 46-52.**

Darke, S. (1998). The effectiveness of methadone maintenance treatment 3: Moderators of treatment outcome. In J. Ward & R. P. Mattick & W. Hall **(Eds.), *Methadone maintenance treatment and other opioid replacement** *therapies* (pp. 75-90). Amsterdam: Harwood Academic.

Darke, S., Hall, W., & Carless, J. (1990). Drug use, injecting practices and sexual behaviour of opioid users in Sydney, Australia. *British Journal of Addiction, 85,* 1603-1609.

D'Aunno, T., Folz-Murphy, N., & Lin, X. (1999). Changes in methadone treatment practices: Results from a panel study, 1988-1995. *American Journal of Drug **and Alcohol Abuse, 25,* 681-699.**

D'Aunno, T., & Vaughn, T. E. (1992). Variations in methadone treatment practices: **Results from a national study. *Journal of the American Medical Association,*** 267,253-258.

Davoli, M., Perucci, C. A., Forastiere, F., Doyle, P., Rapiti, E., Zaccarelli, M., & Abeni, D. D. (1993). Risk factors for overdose mortality: A case-control study within a cohort of intravenous drug users. *International Journal of **Epidemiology, 22,* 273-277.**

Des Jarlais, D. C. (1992). The first and second decades of AIDS among injecting drug **users. *British Journal of Addiction, 87,* 347-353.**

Des Jarlais, D. C. (1994). Cross-national studies of AIDS among injecting drug users. *Addiction, 89,* 383-392.

Desmond, D. P., & Maddux, J. F. (2000). Deaths among heroin users in and out of methadone treatment. *Journal of Maintenance in the Addictions, 1,* 45-61.

Dole, V. P. (1988). Implications of methadone maintenance for theories of narcotic addiction. *Journal of the American Medical Association, 260,* 3025-3029.

Dole, V. P., & Joseph, H. J. (1978). Long-term outcome of patients treated with methadone maintenance. *Annals of the New York Academy of Sciences, 311,* 181-189.

Dole, V. P., & Nyswander, M. (1965). A medical treatment for diacetylmorphine (heroin) addiction: A clinical trial with methadone tiydrochloride. *Journal of the American Medical Association, 193,* 80-84.

Dole, V. P., Nyswander, M., & Warner, A. (1968). Successful treatment of 750 criminal addicts. *Journal of the American Medical Association, 206,* 2708-2711.

Dole, V. P., Robinson, J. W., Orraca, J., Towns, E., Searcy, P., & Caine, E. (1969). Methadone treatment of randomly selected criminal addicts. *New England Journal of Medicine, 280,* 1372-1375.

Drummer, O. H., Opeskin, K., Syrjanen, M., & Cordner, S. M. (1992). Methadone toxicity causing death in ten subjects starting on a methadone maintenance program. *American Journal of Forensic Medicine and Pathology, 13,* 346-350.

Fiellin, D. A., O'Connor, P. G., Chawarski, M., Pakes, J. P., Pantalon, M. V., & Schottenfeld, R. S. (2001). Methadone maintenance in primary care: A randomised controlled trial. *Journal of the American Medical Association, 286,* 1724-1731.

Gearing, F. R., & Schweitzer, M. D. (1974). An epidemiologic evaluation of long-term methadone maintenance treatment for heroin addiction. *American Journal of Epidemiology, 100,* 101-112.

General Accounting Office. (1990). Methadone maintenance: Some treatment programs are not effective: Greater federal oversight needed. Washington, DC: General Accounting Office.

Gerstein, D. R., & Harwood, H. J. (Eds.). (1990). *Treating drug problems, Vol. 1. A study of the evolution, effectiveness, and financing of public and private drug treatment systems.* Washington: National Academy Press.

Goldstein, A., & Herrera, J. (1995). Heroin addicts and methadone treatment in Albuquerque: A 22-year follow-up. *Drug and Alcohol Dependence, 40,* 139-150.

Gossop, M., Marsden, J., Stewart, D., & Rolfe, A. (2000). Patterns of improvement after methadone treatment: 1 year follow-up results from the National Treatment Outcome Research Study (NTORS). *Drug and Alcohol Dependence, 60,* 275-286.

Grbnbladh, L., Öhlund, L. S., & Gunne, L. M. (1990). Mortality in heroin addiction: Impact of methadone treatment. *Ada Psychiatrica Scandinavia, 82,* 223-227.

Gunne, L.-M., & Grönbladh, L. (1981). The Swedish methadone maintenance program: A controlled study. *Drug and Alcohol Dependence, 7,* 249-256.

Haastrup, S., & Jepsen, P. W. (1984). Seven year follow-up of 300 young drug **abusers.** ***Acta Psychiatrica Scandinavia, 70,*** **503-509.**

Hagan, H., & Des Jarlais, D. C. (2000). HIV and HCV infection among injecting drug **users.** ***Mount Sinai Journal of Medicine, 67,*** **423-428.**

Hall, W. (1993). Perfectionism in the therapeutic appraisal of methadone maintenance. *Addiction, 88,* 1173-1175.

Hall, W., Bell, J., & Carless, J. (1993). Crime and drug use among applicants for methadone maintenance. *Drug and Alcohol Dependence, 31,* 123-129.

Hall, W., Ward, J., & Mattick, R. P. (1998). Introduction. In J. Ward & R. P. Mattick **& W. Hall (Eds.),** ***Methadone maintenance treatment and other opioid*** *replacement therapies* (pp. 1-14). Amsterdam: Harwood Academic.

Hartel, D. M., Shoenbaum, E. E., Selwyn, P. A., Kline, J., Davenny, K., Klein, R. S., & Friedland, G. H. (1995). Heroin use during methadone maintenance treatment: The importance of methadone dose and cocaine use. *American* ***Journal of Public Health, 85,*** **83-88.**

Hartnoll, R. L., Mitcheson, M. C, Battersby, A., Brown, G., Ellis, M., Fleming, P., & Hedley, N. (1980). Evaluation of heroin maintenance in controlled trial. ***Archives of General Psychiatry, 37,*** **877-884.**

Heinemann, A., Iwersen-Bergmann, S., Stein, S., Schmoldt, A., & Piischel, K. (2000). Methadone-related fatalities in Hamburg 1990-1999: Implications for quality standards in maintenance treatment? *Forensic Science International, 113,* 449-455.

Hser, Y., Anglin, M. D., & Powers, K. (1993). A 24-year follow-up of California **narcotics addicts.** ***Archives of General Psychiatry, 50,*** **577-584.**

Hubbard, R. L., Craddock, G., Flynn, P. M., Anderson, J., & Etheridge, R. M. (1997). Overview of 1-year follow-up outcomes in the drug abuse treatment outcome **study (DATOS).** ***Psychology of Addictive Behaviours, 11,*** **261-278.**

Hubbard, R. L., Marsden, M. E., Rachal, J. V., Harwood, H. J., Cavanagh, E. R., & **Ginzburg, H. M. (1989).** ***Drug abuse treatment: A national study of*** *effectiveness.* U.S.A.: University of North Carolina Press.

Humeniuk, R., AH, R., White, J., Hall, W., & Farrell, M. (2000). *Proceedings of* ***expert workshop on the induction and stabilisation of patients onto*** *methadone.* Canberra: Commonwealth of Australia.

Hunt, D. E., Lipton, D. S., Goldsmith, D. S., Strug, D. L, & Spunt, B. (1985-86). "It takes your heart": The image of methadone maintenance in the addict world and its effect on recruitment into treatment. *International Journal of the* ***Addictions, 20,*** **1751-1771.**

Institute of Medicine. (1995). ***Federal regulation of melhadone treatment.*** Washington: National Academy Press.

Joe, J. W., & Simpson, D. D. (1987). Mortality rates among opioid addicts in a **longitudinal study.** ***American Journal of Public Health, 77,*** **347-348.**

Joseph, H., Stancliff, S., & Langrod, J. (2000). Methadone maintenance treatment (MMT): A review of historical and clinical issues. *Mount-Sinai Journal of* ***Medicine, 67,*** **347-364.**

King, V. L., Stoller, K. B., Hayes, M., Umbricht, A., Currens, M., Kidorf, M. S., Carter, J. A., Schwartz, R., & Brooner, R. K. (2002). A multicentre randomized evaluation of methadone medical maintenance. *Drug and Alcohol* ***Dependence, 65,*** **137-148.**

Klee, H., Faugier, J., Hayes, C, & Morris, J. (1991). The sharing of injecting equipment among drug users attending prescribing clinics and those using **needle-exchanges.** ***British Journal of Addiction, 86,*** **217-233.**

Kraft, M. K., Rothbard, A. B., Hadley, T. R., McLellan, A. T., & Asch, D. A. (1997). Are supplementary services provided during methadone maintenance really **cost-effective?** ***American Journal of Psychiatry, 154,*** **1214-1219.**

Kreek, M. J. (1996). Long-term pharmacotherapy for opiate (primarily heroin) addiction: Opioid agonists. In C. R. Schuster & M. J. Kuhar (Eds.), ***Pharmacological aspects of drug dependence: Toward an integrated*** *neurobehavioral approach* (pp. 487-562). Berlin: Springer.

Laslett, A. M., & Rumbold, G. (1998). The epidemiology of Australian drug use. In M. Hamilton & A. Kellehear & G. Rumbold (Eds.), *Drug use in Australia: A harm minimisation approach* (pp. 30-47). Melbourne: Oxford University Press.

Leavitt, S. B., Shinderman, M., Maxwell, S., & Paris, P. (2000). When "enough" is not enough: New perspectives on optimal methadone maintenance dose. ***MoUnt Sinai Journal of Medicine, 67,*** **404-411.**

Longshore, D., Hsieh, S., Danila, B., & Anglin, M. D. (1993). Methadone maintenance and needle/syringe sharing. *International Journal of the* ***Addictions, 28,*** **983-996.**

Maddux, J. F., & Desmond, D. P. (1992). Methadone maintenance and recovery from **opioid dependence.** ***American Journal of Drug and Alcohol Abuse, 18,*** **63-74.**

Maddux, J. F., Prihoda, T. J., & Vogtsberger, K. N. (1997). The relationship of methadone dose and other variables to outcome of methadone maintenance. ***American Journal of Addiction, 6,*** **246-255.**

Magura, S., Nwakeze, P. C, & Demsky, S. (1998). Pre- and in-treatment predictors of retention in methadone treatment using survival analysis. *Addiction, 93,* 51-60.

Magura, S., Nwakeze, P. C, Sung-Yeon, K., & Demsky, S. (1999). Program quality effects on patient outcomes during methadone maintenance: A study of 17 **clinics.** ***Substance Use and Misuse, 34,*** **1299-1324.**

Magura, S., & Rosenblum, A. (2001). Leaving methadone treatment: Lessons learned, lessons forgotten, lessons ignored. ***Mount Sinai Journal of Medicine, 68,*** **62-74.**

Marmor, M., Des Jarlais, D. C, Cohen, H., Friedman, S. R., Beatrice, S. T., Dubin, N., El-Sadr, W., Mildvan, D., Yancovitz, S. R., Mathur, U., & Holzman, R. (1987). Risk factors for infection human immunodeficiency virus among intravenous drug abusers in New York City. ***AIDS, 1,*** **39-44.**

Marsch, L. A. (1998). The efficacy of methadone maintenance interventions in reducing illicit opiate use, HIV risk behaviour and criminality: A meta-analysis. ***Addiction, 93,*** **515-532.**

Mattick, R. P., Oliphant, D., Ward, J., & Hall, W. (1998). The effectiveness of other opioid replacement therapies: LAAM, heroin, buprenorphine, naltrexone and injectable maintenance. In J. Ward & R. P. Mattick & W. Hall (Eds.), ***Methadone maintenance treatment and other opioid replacement therapies*** **(pp. 123-157). Amsterdam: Harwood Academic.**

McGlothlin, W. H., & Anglin, M. D. (1981). Shutting off methadone: Costs and benefits. ***Archives of General Psychiatry, 38,*** **885-892.**

McLellan, A. T., Alterman, A. I., Metzger, D. S., Grissom, G. R., Woody, G. E., Luborsky, L., & O'Brien, C. P. (1994). Similarity of outcome predictors across opiate, cocaine, and alcohol treatments: Role of treatment services. ***Journal of Consulting and Clinical Psychology, 62,*** **1141-1158.**

McLellan, A. T., Arndt, I. 0., Metzger, D. S., Woody, G. E., & O'Brien, C. P. (1993). The effects of psychosocial services in substance abuse treatment. ***Journal of the American Medical Association, 269,*** **1953-1959.**

McLellan, A. T., Woody, G. E., Luborsky, L., & Goehl, L. (1988). Is the counsellor an "active ingredient" in substance abuse rehabilitation? An examination of treatment success among four counselors. ***Journal of Nervous and Mental Disease,*** **77(5,423-430.**

Metzger, D. S., Woody, G. E., McLellan, A. T., O'Brien, C. P., Druley, P., Navaline, H., DePhilippis, D., Stolley, P., & Abrutyn, E. (1993). Human Immunodeficiency Vims seroconversion among intravenous drug users in- and out-of-treatment: An 18-month prospective follow-up. ***Journal of Acquired Immune Deficiency Syndromes, 6,*** **1049-1055.**

Moss, A. R., Vranizan, K., Gorter, R., Bacchetti, P., Watters, J., & Osmond, D. (1994). HIV seroconversion in intravenous drug users in San Francisco 1985-1990. ***AIDS.*** **5,223-231.**

Nelkin, D. (1973). ***Methadone maintenance: A technological fix.*** **New York: George Braziller.**

Newman, R. G., & Whitehill, W. B. (1979). Double-blind comparison of methadone and placebo maintenance treatments of narcotic addicts in Hong Kong. ***Lancet, September 8,*** **485-488.**

Nies, A. S. (1990). Principles of therapeutics. In A. G. Gilman & T. W. Rail & A. S. Nies & P. Taylor (Eds.), *The pharmacological basis of therapeutics* (7th Edition ed., pp. 62-83). USA: Pergamon.

Novick, D. M. (2000). The impact of hepatitis C virus infection on methadone maintenance treatment. *Mount Sinai Journal of Medicine, 67,* 437-443.

Novick, D. M., Joseph, H., Croxson, T. S., Salsitz, E. A., Wang, G., Richman, B. L, Poretsky, L., Keefe, J. B., & Whimbey, E. (1990). Absence of antibody to human immunodeficiency virus in long-term, socially rehabilitated methadone maintenance patients. *Archives of Internal Medicine, 150,* 97-99.

Novick, D. M., Richman, B. L., Friedman, J. M, Friedman, J. E., Fried, C, Wilson, J. P., Townley, A., & Kreek, M. J. (1993). The medical'status of methadone maintenance patients in treatment for 11-18 years. *Drug and Alcohol Dependence, 33,* 235-245.

Perret, G., Déglon, J., Kreek, M. J., Ho, A., & Harpe, R. L. (2000). Lethal methadone intoxications in Geneva, Switzerland, from 1994 to 1998. *Addiction, 95,* 1647-1653.

Perucci, C. A., Davoli, M., Rapiti, E., Abeni, D. D., & Forastiere, F. (1991). Mortality of intravenous drug users in Rome: A cohort study. *American Journal of Public Health, 81,* 1307-1310.

Perucci, C. A., Forastiere, F., Rapiti, E., Davoli, M., & Abeni, D. D. (1992). The impact of intravenous drug use on mortality of young adults in Rome, Italy. *British Journal of Addiction, 87,* 1637-1641.

Prendergast, M. L., Podus, D., & Chang, E. (2000). Program factors and treatment outcomes in drug dependence treatment: An examination using meta-analysis. *Substance Use and Misuse, 35,* 1931-1965.

Preston, K. L., Umbricht, A., & Epstein, D. H. (2000). Methadone dose increase and abstinence reinforcement for treatment of continued heroin use during methadone maintenance. *Archives of General Psychiatry, 57,* 395-404.

Rachels, J. (1986). *The elements of moral philosophy.* Philadelphia: Temple University Press.

Rosenbaum, M., Irwin, J., & Murphy, S. (1988). De facto destabilization as policy: The impact of short-term methadone maintenance. *Contemporary Drug Problems,* 75, 491-517.

Schoenbaum, E. E., Hartel, D., Selwyn, P. A., Klein, R. S., Davenny, K., Rogers, M., Feiner, C, & Friedland, G. (1989). Risk factors for human immunodeficiency virus infection in intravenous drug users. *New England Journal of Medicine,* 327,874-879.

Sees, K. L., Delucchi, K. L., Masson, C, Rosen, A., Clark, H. W., Robillard, H., Banys, P., & Hall, S. M. (2000). Methadone maintenance vs 180-day psychosocially enriched detoxification for treatment of opioid dependence. *JAMA, 283,* 1303-1310.

Selwyn, P. A., Feiner, C, Cox, C. P., Lipshutz, C, & Cohen, R. L. (1987). Knowledge about AIDS and high-risk behavior among intravenous drug users in New York City. *AIDS, 1,* 247-254.

Serpelloni, G., Carrieri, M. P., Rezza, G., Morganti, S., Gomma, M., & Binkin, N. (1994). Methadone treatment as a determinant of HIV risk reduction among injecting drug users: A nested case control study. *AIDS Care, 16,* 215-220.

Simpson, D. D. (1981). Treatment for drug abuse: Follow-up outcomes and length of **time spent. *Archives of General Psychiatry, 38,* 875-880.**

Simpson, D. D., & Sells, S. B. (1982). Effectiveness of treatment for drug abuse: An overview of the DARP research program. *Advances in Alcohol and Substance **Abuse, 2,* 7-29.**

Sorensen, J. L., & Copeland, A. L. (2000). Drug abuse treatment as an HIV prevention strategy: A review. *Drug and Alcohol Dependence, 59,* 17-31.

Stark, K., & Miiller, R. (1993). HIV prevalence and risk behaviour in injecting drug **users in Berlin. *Forensic Science International, 62,* 73-81.**

Stimmel, B., Goldberg, J., Cohen, M, & Rotkopf, E. (1978). Detoxification from methadone maintenance: Risk factors associated with relapse to narcotic use. ***Annals of the New York Academy of Sciences, 311,* 173-180.**

Stimson, G. V., & Oppenheimer, E. (1982). *Heroin addiction: Treatment and control in Britain.* London: Tavistock.

Strain, E. C, Bigelow, G. E., Liebson, I. A., & Stitzer, M. L. (1999). Moderate- vs high-dose methadone in the treatment of opioid dependence. *JAMA, 281,* 1000-1005.

Strain, E. C, Stitzer, M. L., Liebson, I. A., & Bigelow, G. E. (1993). Dose-response effects of methadone in the treatment of opioid dependence. *Annals of Internal **Medicine, 119,23-27.***

Strang, J., Marsen, J., Cummins, M., Farrell, M, Finch, E., Gossop, M., Stewart, D., & Welch, S. (2000). Randomised trial of supervised injectable versus oral methadone maintenance: Report of feasibility and 6-month outcome. *Addiction,* 95, 1631-1645.

Thorley, A. (1980). Longitudinal studies of drug dependence. In G. Edwards & C. **Rush (Eds.), *Drug problems in Britain: A review of ten years.* London:** Academic Press.

Umbricht-Schneiter, A., Ginn, D. H., Pabst, K. M., & Bigelow, G. E. (1994). Providing medical care to methadone clinic patients: Referral vs on-site care. ***American Journal of Public Health, 84,* 207-210.**

Vaillant, G. E. (1966). A twelve-year follow-up of New York narcotic addicts: I. The relation of treatment to outcome. *American Journal of Psychiatry, 122,* 727-737.

Vaillant, G. E. (1973). A 20 year follow-up of New York narcotic addicts. *Archives of **General Psychiatry, 29,* 237-241.**

van Ameijden, E. J. C, Langendam, M. W., & Coutinho, R. A. (1999). Dose-effect relationship between overdose mortality and prescribed methadone dosage in low-threshold maintenance programs. *Addictive Behaviors, 24,* 559-563.

Vanichseni, S., Wongsuwan, B., Staff of the BMA Narcotics Clinic No. 6, Choopanya, K., & Wongpanich, K. (1991). A controlled trial of methadone maintenance in a population of intravenous drug users in Bangkok: Implications for prevention of HIV. *International Journal of the Addictions, 26,* 1313-1320.

Ward, J., Mattick, R. P., & Hall, W. (1992). *Key issues in methadone maintenance treatment.* Sydney: New South Wales University Press.

Ward, J., Mattick, R. P., & Hall, W. (1998a). The effectiveness of methadone maintenance treatment 2: HIV and infectious hepatitis. In J. Ward & R. P. Mattick & W. Hall (Eds.), *Methadone maintenance treatment and other opioid replacement therapies* (pp. 59-74). Amsterdam: Harwood Academic.

Ward, J., Mattick, R. P., & Hall, W. (1998b). How long is long enough? Answers to questions about the duration of methadone maintenance treatment. In J. Ward & R. P. Mattick & W. Hall (Eds.), *Methadone maintenance treatment and other opioid replacement therapies* (pp. 305-336). Amsterdam: Harwood Academic.

Ward, J., Mattick, R. P., & Hall, W. (1998c). Psychiatric comorbidity among the opioid dependent. In J. Ward & R. P. Mattick & W. Hall (Eds.), *Methadone maintenance treatment and other opioid replacement therapies* (pp. 419-440). Amsterdam: Harwood Academic.

Ward, J., Mattick, R. P., & Hall, W. (1998d). The use of methadone during maintenance treatment: Pharmacology, dosage and treatment outcome. In J. Ward & R. P. Mattick & W. Hall (Eds.), *Methadone maintenance treatment **and** other opioid replacement therapies* (pp. 205-238). Amsterdam: Harwood Academic.

Ward, J., Mattick, R. P., & Hall, W. (Eds.). (1998e). *Methadone maintenance treatment and other opioid replacement therapies.* Amsterdam: Harwood Academic.

Woody, G. E., McLellan, A. T., Luborsky, L., & O'Brien, C. P. (1995). Psychotherapy in community methadone programs: A validation study. *American Journal of Psychiatry, 152,* 1302-1308.

Woody, G. E., McLellan, A. T., Luborsky, L., O'Brien, C. P., Blaine, J., Fox, S., Herman, I., & Beck, A. T. (1984). Severity of psychiatric symptoms as a predictor of benefits from psychotherapy: The Veterans Administration-Penn study. *American Journal of Psychiatry, **141,** **1172-1177.***

Yancovitz, S. R., Des Jarlais, D. C., Peyser, N. P., Drew, E., Freidmann, P., Trigg, H. L., & Robinson, J. W. (1991). A randomised trial of an interim methadone maintenance clinic. *American Journal of Public Health, 81,* 1185-1191.

Zador, D. (2001). Injectable opiate maintenance in the UK: Is it good clinical practice? *Addiction, 96,* 547-553.

Methadone Maintenance Treatment in an Irish Context

Dr. Eamon Keertan

The previous speaker has given a reasoned a balanced argument in favour of the use of methadone as an effective intervention in the treatment of opiate dependence syndrome. One interesting point to emerge and one that highlights the emotive nature of methadone treatment, is his justification of methadone maintenance on utilitarian moral grounds. That a medicinal product, with proven scientific merit, should require justification on such grounds goes some way towards explaining the controversy surrounding methadone. Today rather than justify my use of methadone maintenance as a treatment intervention, I will simply talk about its use in the Irish context.

The fact that I am speaking about the Irish context implies something rather different to other contexts. What is remarkable about the methadone maintenance treatment provision in Ireland that caused two external evaluators to describe the service as 'unique in Europe'? In my attempt to answer this question I will examine the use of methadone in Ireland over the last three decades.

Some people may be surprised that I will be talking about more than 30 years but it must be acknowledged that treatment services did exist in Ireland before the harm reduction approach of the late 1980's and early 1990's.

The Drug Treatment and Advisory Service was established in Jervis Street hospital in 1969 following the report by the Working Party on drug abuse to the Minister of Health. Two years later, in 1971, methadone was introduced as a standardised therapeutic approach for the treatment of those dependent on opiates and synthetic opiates. During the 1970's the option of maintenance was available to a small number of clients attending the service in Jervis Street. Between 1973 and 1977 the average number of patients attending the clinic per month was 100-125(many were alcohol dependent), however in 1977 only 6 individuals per month were presenting abusing heroin. One survey carried out in 1978 looked at the characteristics of 10 patients, 5 male and 5 female, on methadone maintenance. The average age of first drug use was 14.5 years, average age at first presentation was 21 years and 4/5ths of the sample were polydrug abusers, findings remarkably similar to cohorts today. The survey also notes that the aim of the treatment was to maintain the individual on as low and exclusively oral dose as possible, between 25-50mgs per day. Some information on individuals presenting for the treatment of opiate use in the 1970's is available but this needs to be interpreted with caution as many of the individuals were abusing synthetic opiates and heroin use was not the problem it was to become.

However in the early 1980's Dublin experienced what is now described as 'the opiate epidemic'. During this time period, the number of heroin users presenting to Jervis Street increased dramatically. Between 1.7.81 and 30.6.82, a total of 426 individuals with drug related problems presented to Jervis Street. Of these, 292(68.5%) were abusing heroin and 272 were using intravenously. Also, at this time, the Virus Reference Laboratory noted a marked increase in the numbers of cases of hepatitis B. From 10 per year between 1975-1979, the figure rose to 158 in the first 8 months of 1981. One case report in the Irish Medical Journal of 1982 identifies chronic active hepatitis due to hepatitis B in a 12 year old boy who began injecting heroin at age 11.

The Drug Treatment Centre was thus faced with a serious outbreak of injecting heroin use in young people and responded by providing methadone detoxification to those who presenting and adopting an abstinence orientated approach. To a certain extent this initially appeared successful and two scientific papers seemed to indicate that the problem might have been abating 'The Opiate Epidemic in Dublin: are we over the worst?'(1987) and 'The rise and fall of heroin use in an inner city area of Dublin'(1988). Figures from the Drug Treatment Centre showed a decrease in 1984 both in the number of new patients and in the numbers presenting with a history of heroin use.

Unfortunately this optimism was short lived. Routine voluntary testing of drug users for HIV began in 1985 and over the first 2 years, 19% of those tested were diagnosed as being HIV positive. Prior to this the Drug Centre had been providing methadone maintenance to pregnant opiate addicts and showed improvement in 40% of cases. With the advent of HIV, they extended the methadone programme on a pilot basis to certain individuals who were HIV positive. Initially 50% of individuals dropped out, however those who remained showed reductions in intravenous use. The doses used in these cases were generally in the low to moderate ranges, with few patients being prescribed greater than 60 mgs.

At this stage the problem in relation to HIV became very much a Public Health issue and affected both the gay and heterosexual communities. On a world wide basis there was evidence emerging that methadone maintenance was have a beneficial effect in decreasing rates of HIV. Therefore in the early 1990's the Health Board, driven largely by the Public Health department, began to invest manpower and resources in the development of a community based methadone maintenance programme. This programme aimed not only to provide services locally within a community but also involve primary care in the provision of methadone treatment.

The term 'Community Based' had been used before in relation to the development of the Mental Health Service. However if this is examined more closely, it could be said that the Mental Health Service simply moved from an institutional setting to a physical location in a community. Yes, ease of access improved and yes, community psychiatric nurses were employed to interface with the community but there was no sitting down around a table with local community groups discussing issues in relation to development of the service.

While the statutory services were developing sophistication in relation to the treatment of opiate addiction, there was also a shift in perspective among local communities. During the 1980's there had been an emphasis on short-term detoxification and getting rid of the problem. When this was manifestly not happening, a sense of frustration emerged and in areas of already deteriorating social conditions, an intolerance towards drug users grew. This led to some community protests and some public acts of anti drug vigilantism. However this began to change in the early 1990's and the areas of community development and urban regeneration began to gain importance. Within this framework there was a recognition that services for individuals with heroin problems should be provided for primarily within their own communities and that such facilities should reflect the community in terms of their structure and operation.

Important changes were also occurring in relation to methadone. Certain GP's within the city had begun to prescribe to opiate users. For the most part these doctors aimed to provide a service, which they recognized, was needed at local' level. However the absence of formalised structures for delivering a methadone programme led to considerable difficulties. Double scripting was common and there was considerable leakage of methadone onto the black market. Some local communities began to recognize methadone as a significant problem and began to question the appropriateness of having such a treatment locally.

The timing was right for the statutory services and the local communities to begin to work together to deal with the problem of heroin addiction. The health services introduced the methadone protocol to control the prescribing and dispensing of methadone. The communities began to lobby successfully for local resources and services. The local Task Forces were established to provide a forum for community, voluntary and statutory services to work together in providing a comprehensive response to opiate addiction

The health boards also followed the example of some local communities who were working with GP's to provide local treatment to local people. This resulted in the health boards developing not only treatment centres to provide methadone on site but also smaller satellite clinics. At satellite clinics the health board staff including sessional GP's and counselling work with the local community to provide a comprehensive service to the opiate user at a local level. Methadone is dispensed at a local community pharmacy and the ultimate aim of the service is to stabilize the chaotic lifestyle of the individual and return them to a functioning role within the family and the community.

Today, almost 6500 individuals in Ireland, the vast majority in the Dublin area, are on methadone treatment. Over 55 clinics exist in the Eastern region. Almost 1/3 of patients are placed with community GP's. The statutory services must recognize than the expansion would not have occurred without the support and commitment of the local communities. Similarly the communities must recognize that the expansion could not have occurred without the professionalism and expertise of the health boards. This support and respect for each other will allow the health board and community to work together in delivering a unique service to the opiate user on methadone programmes.

Response Paper 2

Maintaining Abstinence As a Treatment of First Resort

Stephen Rowen
Rutland Centre

I would like to begin my response to Jeff Ward's paper by thanking Barry Cullen and the organizers of this conference for providing me with the opportunity to speak about such an important topic. Addiction in all its forms continues to have a very powerful and negative impact on Irish life. In fact, few in this audience would disagree with the statement that it is quite rare to find an Irish family that has not been negatively impacted by Addiction in one or another or its forms, although the form of Addiction most frequently mentioned is, of course, Alcohol Dependence.

I believe that Jeff Ward's paper makes a very strong case in favour of Methadone Maintenance for some. Although I do not believe that the situation here in Ireland is exactly the same as in Australia, the US or any other society, his point is quite clear: that methadone maintenance should be regarded a significant weapon in society's arsenal against the criminality, spread of infectious diseases and many other dangers usually associated with heroin addiction. On one level agree with his position. I believe that Methadone Maintenance can be a life saving resource for some of those deeply stuck in the advanced stages of heroin addiction and for whom a variety of drug free options have not been effective.

Those in this audience who are familiar with the treatment philosophy of Rutland Centre are well aware that we do not advocate the use of methadone or any other drug substitution therapy with our clients. We follow what has usually been referred to "the Minnesota Model" of treatment. In practice, there are various forms of the Minnesota Model and there are important differences between our approach and the approaches of other treatment programmes that are more closely aligned with the Hazelden Centre outside of Minneapolis. However, the Minnesota type programmes all advocate an abstinence-based, 12-step approach to treatment and recovery which focuses on a blend of various forms of therapy as well as education and information on addiction for both the addict and the concerned person. Our approach is considered spiritual, although in a very non-religious, non-denominational kind of way. Our clinical programme assists the entire family with recovery. Our modality engages clients in a very intense two therapy groups a day approach to recovery. Our programme emphasizes an invitation to the client to take that all important First Step towards changing their entire life. Primarily, we deal with the underlying hurts and losses that fuel the low self-esteem, the self-loathing, and the self-sabotage that exacerbates chemical misuse and moves it from experimentation into full-fledged addiction. And we get results! **Rutland Centre** is a **truly** special place **that has**

opened up for many thousands of individuals the opportunity to change their lives forever.

As I begin to outline several points for this audience's reflection, I wish to state so obvious facts for your collective consideration:

1. Whilst it may be convenient and useful to use such terms as "abstinence-based" and "harm-reduction" approaches to treatment, the reality is that most of us still believe that eventual abstinence is the ultimate goal for all, or at least almost all, of our clients. In that sense, most of us can accurately call ourselves "abstinence oriented" in our philosophy of treatment as to where eventually hope our clients will go, but we simply disagree whether it is preferable to use long-term use of methadone as a means towards that end. also believe that in the professional world of Addiction Treatment, few of us believe that until there is a true cure for addiction, which may or may not someday happen, the best any of us can do is to "reduce harm" and in that sense we are all on the side of "harm reduction". We all want the same thing for our clients, which is freedom from the life-damaging ravages of chemicals addiction.

2. Most of the individuals who are in trouble with Chemical abuse today are not receiving any kind of professional treatment or support service from anyone Obviously we have important differences of approach. Rather than argue and disagree about who has the better approach, I believe we must find more and more effective ways to reach out to the massive number of individuals who are not receiving any kind of professional support from anywhere. It has been estimated that the number of heroin addicts in Greater Dublin alone ranges from 13,000 to perhaps up to 20,000. And yet fewer than 8,000-9,000 are receiving direct therapeutic services in any given year. Most opiate addicts are not being served at all. Facts from the provincial towns and smaller cities around Ireland indicate that in such communities as Athlone, Carlow, and Mullingar the numbers of heroin addicts are no longer in the dozens, they are now in the hundreds. It is no longer accurate to talk about heroin addiction as "Dublin problem" but rather as the national problem that it is truly becoming also contend that although our National Drugs Strategy splits off the "drug problem" from the "alcohol problem" the reality is that we have one of the highest levels of per capita alcohol intake in the world, and that the vast majority of individuals with Alcohol Addiction, Compulsive Gambling problems, Food/Internet/Shopping and other Addictions are also not being treated, stabilized or maintained on anything and are also not seeking or receiving professional services from anywhere.

3. Cocaine has joined ecstasy and amphetamines as a leading cause of concern in Drug Addiction circles around Ireland. On Friday 13th of September, I spent a very interesting but alarming couple of hours with close to 100 drugs counsellors and workers, mostly from Greater Dublin but also from elsewhere who are frightened by the a disturbing escalation in cocaine use in Ireland - most often in combination with Alcohol or Heroin or Methadone but sometimes as a primary source of chemical dependency. In fact, a recent UN study recently pointed out that Ireland ranks first in European the use of

4. amphetamines and ecstasy and third in Europe(and quickly rising) for cocaine. I contend that the core issue of chemical abuse and Addiction in Irish society is not whether to use methadone less often or more often, it is how to address the staggering problem of substance misuse on many, many levels. I believe that Alcohol misuse is at the core of Ireland's drug problem and that until there is a major change of consciousness in Irish Society we are going to continue to be "A Nation in Denial". We cannot correct the problem of chemical abuse with a chemical and this has never been more apparent than with the recent rise of cocaine in Irish Society.

But what about **Methadone? Is** it a chemical that has often been maligned and rarely appreciated by those of us on the drug-free side of the spectrum? Perhaps!

Studies are difficult. Although I have great respect for Jeff Ward's scholarly review of the literature, I am left wondering if what might be the result if we compare a large enough number of individuals who have completed a comprehensive drug treatment and social rehab approach with those who have stayed on methadone only.

If I **were** a sceptic, and I am glad that I am not, I would be saying that many of Jeff Ward's comments are about studies conducted not only in another country but at a another time. Sometimes the apparent "failure" of individuals to remain abstinent in a so-called drug free treatment modality is based on data for those who have successfully completed detox only and not on those who have undergone a comprehensive drug free treatment experience. One wonders how often have individuals received the kind of support that individuals truly locked into "deep combat" with Addiction truly require. An example of what I mean is this: Over the past few years Soilse, a social drug rehab programme in the North Inner City of Dublin has joined up with Rutland Centre in what is known simply as the "Rutland-Soilse" Partnership. In the first two years of operation, two follow-up studies were conducted by outside research specialists. In the first of these, 7 out of 10 former residential clients who not only completed our 6 week residential programme, but who also completed Soilse's 4 month day programme were both clean and sober in every way.

The second year study indicated that 9 out of 10 who completed both sides of the partnership programme were doing well with at least 6 months' clean-sober time as at the date of the follow-up study. We are very grateful to Soilse for the outstanding rehabilitation services that they provide and also to the Northern Area

Health Board for the funding that they provide for this highly successful programme. But I would also acknowledge that the numbers involved are quite small. We need more data from more efforts of such a comprehensive approach to be able to be more convincing of the efficacy of such an approach.

But I am not a sceptic. What I like to think of myself as is, instead, a realist who understands that heroin dependency is a vicious fact of modern life. None of us can afford to be on a crusade to condemn and criticize our colleagues who have a somewhat different set of beliefs about what works best for most. But at the same time I believe we must look at how the methadone programme works in this country and find better ways to manage what is going on. I am very concerned that we look at some of the international data, we then decide that since methadone works pretty well with certain population groups in several other countries it is therefore the "treatment of choice" for almost everyone in trouble with heroin is this country.

This is faulty logic. All too often I have sat in my office with a prospective client who tells me that the physician with whom they consulted told them that methadone is "just like insulin for a diabetic" and that they will probably need to be on methadone for the rest of their lives. This may or may not be what the physician actually said but it is what the client is hearing. It is hugely difficult in this country for all but a relatively few to get successfully detoxed off methadone once one has started on methadone. My greatest concern is that individuals in this country are not provided with a well-informed choice of a drug-free option vs. methadone maintenance with a detailed explanation of the advantages and disadvantages of each. This is wrong! The clients who tell me that Methadone is nothing short of "state sponsored addiction" are sometimes tell me that they are asking for the choice to go drug-free and that the response is that they are not ready. This is wrong! Because many chronic heroin addicts do function better on higher doses of methadone (80mg-120mg per day), it is therefore assumed that most heroin addicts benefit from these higher dose amounts and we then begin a medication protocol. This is wrong! We fund GP's and others to maintain heroin addicts but we do not fund more than a handful of GP's to detox heroin addicts. This is unfair and unbalanced. We know that individuals who attend counselling on a regular basis in combination with receiving other therapeutic services have a higher success rate yet we do not have enough counsellors trained in this society to do the work that needs to be done.

This is ineffective public policy. In some settings we have qualified counsellors available to see clients but we tolerate clients not keeping their counselling appointments and other commitments. This is enabling behaviour and it is not in the client's best interests. This may be "user-friendly" but it is not effective management of client care.

It is very easy to stand back and criticize and I hope that is not what I am doing here today. Solutions are very difficult to create. I believe that addiction is bigger than I am. I believe that clients are courageous when they undertake the work of recovery. It saddens me when individuals who have done great work relapse and, despite our outstanding work at the Rutland Centre, relapse happens more often than I would like to admit.

What I am asking for today in the context of my response to Jeff Ward's paper, is that we honour what our clients both want and need. They need informed choices and this is not possible in a society where there is not enough funding or training resources for successfully addressing the reality of opiate addiction in Ireland today. Most of our residential clients at the Rutland Centre have huge hurts and losses in their backgrounds. These must be addressed if we are to have successful long-term outcomes. The "hole in the soul" is very real and it needs to be dealt with if we wish see major changes occur in the lives of our young people. We cannot medicate the problem away. Methadone maintenance does help reduce the transmission of HIV; when it works well, methadone maintenance does help reduce crime in the streets; methadone maintenance does stabilize some people well enough so that they can sustain long term employment and establish meaningful long-term relationships. Methadone maintenance is a strategic approach of major significance and has its benefits. But while the "harm reduction" approach does help, it sometimes reduces harm for society as a whole and not necessarily for every individual addict involved. Methadone is still an opiate substance with addictive properties more compelling than heroin. This must not be ignored either.

Methadone maintenance does noi address the reality of Cocaine Dependence, which is looking very strong as the next best "drug of choice" among young addicts in this city. Methadone maintenance does nojt stop individuals from topping up with prescription medication such as benzoes, significant quantities of alcohol, black market methadone and heroin and cannabis. Methadone maintenance does noi address the culture of poverty and joblessness and hopelessness in a society where we apparently need to import workers for our expanding economy whilst we continue to ignore the emotional and educational and vocational needs of so many young people in the impoverished areas of this city. Methadone has some advantages but it also has some major disadvantages.

Clients, particularly young opiate addicts, are not getting enough of what they need growing up. They do not need us to replicate that reality by not giving them enough what they need in treatment and in recovery.

In closing I would like to offer support to my colleagues in the drugs/AIDS service who work hard to bring encouragement and respect to so many young people (and those not so young) who have grown up broken in what I believe is an alcohol soak addicted society. I would like to challenge all-decision makers with limited resource please create ways to train more counsellors to meet the needs of addicts and to giv more power and influence to the counsellor community in the overall management the drug treatment services. Please look at the successes of drug free approaches an make sure that every drug addict in Irish Society has the right to choose a drug-free option. Please consider calling for the drug-free approach as a the treatment of first resort instead of immediately accepting long term methadone maintenance under th mistaken belief that the individual in question is probably not ready to be abstinent anyway. Profound change can and does happen all the time. We must honour the needs of many of all our clients and provide them the best of what we collectively have to offer.

Thank you.

Drugs and Crime: Evidence and Trends

Dr. Eo Dr Eoin O'Sullivan and Dr. Ian O'Donnell

SUMMARY

Policymakers assume that an important connection exists between drug use and crime, yet the precise nature of the relationship remains elusive. The objective of this paper to provide an overview of the various competing explanations for the relationship between alcohol/drug use and crime in Ireland.

There are three basic explanatory models for the relationship between alcohol/drug use and crime: (i) substance use leads to crime, (2) crime leads to substance use, and (3) the relationship is either coincidental or explained by a set of common causes. Each model may apply to different sub-groups of the population of substance-using criminals or to different incidents of alcohol/drug-related crime. Much of the literature on drugs / alcohol and crime has focused on the first explanation, which in turn is explained by three different models. These are the psychopharmacological model; the economic motivation model and the systemic model. Of equal importance, but often overlooked in the literature is drug involvement /possession as crime. Despite often considerable disagreements, much of the existing research supports the view that alcohol use is associated with violent crime, whereas other drug (especially heroin) use is associated with the commission of property crime.

In the paper, a review of the pertinent literature is presented and evidence from the Ireland given. Given the substantial limitations that exist to framing a coherent debate on this issue in Ireland, largely because of data limitations, evidence from other jurisdictions is presented which demonstrates a clear punitive trend over the past decade. In conclusion, we suggest that drug control policies are no different from other areas of social policy. That is, programs that fit some broad ideological agenda will be implemented and supported regardless of the scientific evidence. While further research in Ireland can help us make informed decisions among the choices available, but, more often than not, policy decisions concerning crime and drugs will be determined by iniluences other than empirical evidence.

Explaining the Relationship

There are three basic explanatory models for the relationship between alcohol/drug use and crime:

- (1) substance use leads to crime,
- (2) crime leads to substance use, and
- (3) the relationship is either coincidental or explained by a **set** of common causes.

<

Each model may apply to different sub-groups of the population of substance-using criminals or to different incidents of alcohol/drug-related crime.

Substance Abuse Leads to Crime

- **The *psychopharmacological model* proposes that the effects of intoxication cause criminal (especially violent) behaviour.**

- **The *economic motivation model* assumes that drug users need to generate illicit income to support their drug habit. Thus, they engage in crimes such as robbery, burglary, and prostitution to get drugs or the money to buy them.**

- **The *systemic model,* argues that the system of drug distribution and use is inherently connected with violent crime. Systemic types of crimes surrounding drug distribution include fights over organisational and territorial issues, enforcement of rules, and transaction-related crimes. Further, drug markets can create community disorganisation, which, in turn, affects the norms and behaviours of individuals who live in the community. Such community disorganisation may be associated with increases in crime that are not directly related to drug selling**

Irish Evidence?

•*"Whilst hard and fast evidence is not available we believe that no less than 80% of certain categories of crime - burglaries, muggings etc. is attributable in who are in part to substance abuse".* (Report of the Lord Mayor's Commission on Crime, 1994:13)

•*The influence of drugs I substance abuse on the level of crime is undoubtedly quite considerable, though difficult to assess precisely* (Department of Justice, 1997:37)

•*In Dublin, between September 1995 and August 1996, known drug users were responsible for 66 percent of all detected crimes.* (Keogh, 1997)

•84% *of Public Order Offences were drug or alcohol related* (Millar ef a/, 1998)

•*In a study of 120 Mountjoy prisoners, the average age of first conviction was 16.8 years, while the average age of initiation into opiates (for those that used them) was 18 years* (O'Mahony, 1997)

•*Between 1971 and 1996, over 40 percent of* ***perpetrators and*** *victims of homicide were intoxicated* (Dooley, 1995, 2001)

Conclusion

- Despite often considerable disagreements, much of the existing research supports the view that alcohol use is associated with violent crime, whereas other drug (especially heroin) use is associated with the commission of property crime.

- Of equal importance, **but** often overlooked is drug involvement / possession as crime.

- Given the substantial limitations that exist to framing a coherent debate on this issue in Ireland, largely because of data limitations, evidence from other jurisdictions demonstrates a clear punitive trend over the past decade.

- Reducing the incidence of drunkenness will reduce crime, unless the **control** measures create a substantial illicit market.

- Reducing the volume of cocaine, heroin, and methamphetamine consumed without raising their prices will also reduce crime. Making treatment more available to offenders is one way to do so.

- Opiate **maintenance therapy (methadone, etc) is a proven** crime-control strategy.

- Prison sentences (particularly long sentences) for minor, non-violent drug offenders may increase crime by wasting prison cells without much influencing the price or availability of drugs.

- Reducing marijuana consumption is less likely to reduce crime than reducing consumption of alcohol, cocaine, or heroin.

- In conclusion, drug control policies are no different from other areas of social policy. That is, programs that fit some broad ideological agenda will be implemented and supported regardless of the scientific evidence.

- While further research in Ireland can help us make informed decisions among the choices available, but, more often than not, policy decisions concerning crime and drugs will be determined by influences other than empirical evidence.

Drugs and Crime in Ireland
Response paper summary - Dr. Tim Murphy, Law Dept, UCC

The main cause of drug-related criminal activity is not drugs, it is drug prohibitioa " Drug prohibition" refers to that part of the general policy response to drug issues that seeks to prohibit certain drugs by means of punitive criminal sanctions as opposed to encouraging a humane therapeutic response through the healthcare sector. The connections between drug prohibition and crime can be seen from an expbration of the idea, discussed in the session paper, that" substance abuse leads to crime" . In fact substance abuse, or " drugs" , very rarely cause crime:

(i) the *psydiopharmacological model* proposes that the effects of intoxication cause criminal (especially violent) behaviour: The evidence is simply not there to support this view, particularly not as a straightforward causal relationship. As Jeffrey Fagan writes in a discussion relating to all **forms of intoxication:** ***"How aggressive behaviour is influenced by the ingestion of various substances is not well understood. There are fundamental differences between substances in their association with aggression; various intoxicants affect both mind and body differently. Research on the nexus of aggression and substance use has consistently found a complex relation, mediated by personality and expectancy factors, situational factors, and sociocultural factors that channel the arousal effects of substances into behaviour types which mayor may not involve interpersonal aggression. The effects of intoxicants also differ according to the amounts consumed per unit of body weight, tolerances, and genetic or biobgical predispositions. Accordingly, there is only limited evidence that consumption of alcohol, cocaine, heroin, or other substances is a direct,*** *pharmacologically based cause of crime."* "Intoxication and Aggression", in Tonry and Wilson **(eds.),** ***Drugs and Crime (Crime and Justice: A Review of Research - Volume 13)*** **(Chicago,** 1990) p.243.

(ii) the *economic motivation model* assumes that drug useis need to generate illicit income to support their drug habi. Thus, they engage in crimes such as robbery, burglary, and prostitution to get drugs or the money to buy them: Drug prohibition is crininogenic through the inflationary effect it has on drug prices: otherwise cheap drugs are made expensive and various forms of property crime are a direct consequence of this. This type of property crime is one of many social costs of drug prohibitioa The crime is not caused by "drug abuse" or "drug addiction", but rather by the demand for drugs in situations where the stale has legislated to drive the market underground As Ethan Naddmann has commented: *"[If drugs were] significantly cheaper* - ***which would be the case if they were legalized - the number of crimes committed by drug addicts to pay for their habits would, in all likelihood, decline dramatically. Even if a legal-drug policy included the imposition of relatively high consumption taxes in order to discourage consumption, drug prices would probably still be lower than they are today."*** **"The Case for Legalization"** (1988) 92 *The Public Interest* 3, at p. 17.

(iii) *tine systemic model* argues that the system of drug distribution and use is inherently connected with violent crime. Systemic types of crimes surrounding drug distribution include fights over organisational and territorial issues, enforcement of rules, and transaction-related crime. Further, drug markets can create community disorganisation, which, in turn, affects the norms and behaviours of individuals who live in the community. Such community disorganisation may be associated with increases in crime that are not directly related to drug selling:

Prohibition creates or, at the very least, facilitates a criminal class, that is, those who operate the illicit drug market. Moreover, illegal markets breed violence: they do so *"not only because they* ***attract criminally-minded individuals, but also because participants in the market have no resort to legal institutions to resolve their disputes".*** **Naddman," The Case for Legalization" , at p. 18. As** for " community disorganisation" , the high levels of drug misuse and property crime associated with drug prohibition, particularly when coupled with conditions of social and economic deprivation, give rise to understandable anger and frustratioa

The session paper highlights how recent drug control efforts, in Ireland and internationally, have resulted in record numbers being arrested and incarcerated for drug-related offences. The main drug offence is drug possession and cannabis is the most significant drug in terms of arrests. This has contributed significantly to growing prison populations such as our own.

This trend shows how the criminal justice responses to drug issues have maintained a strong momentum during a time when harm reduction strategies are increasingly being introduced into healthcare systems. It brings into sharp focus the faikire of the criminal justice sector to encourage and promote collaboration with the healthcare sector. Shane Butler has observed that what appears to have complicated the shared ownership of drug problems in Ireland is the surreptitious introduction of harm reduction into a healthcare system which had previously been abstinence-

•i
v
is based:

"Some countries debated this issue and decided for harm reduction, while other countries debated it and deckied against it; in Ireland there was virtually no public debate and the introduction was such a covert and incremental process that other sectors - in particular the justice sector - were slow to realise the extent and significance of this change. The meaning of illicit drug use, which was traditionally clear and unambiguous, has become increasingly contested. To some at least witlin the criminal justice system it remains a 'social cancer', while to many within healthcare its meaning has become more subtle and ambiguous. " **" A Tale of Two** Sectors" in P. O' Mahony, *Criminal Justice in Ireland* (Dublin, 2002) p.417.

'-•

It remains to be seen whether, as suggested in the session paper, Irish drug policy will continue to fit a broad punitive ideological agenda that will be prioritised and implemented regardless of the scientific evidence. It is the justice rather than the healh sector that must address and debate the manner in which its prohibitionsm cultivates a culture of crime.

—FIN