WHAT IS THIS THING CALLED WORKFORCE DEVELOPMENT?

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> Everything has changed, except our way of thinking
>
> Albert Einstein

The Alcohol and Other Drugs (AOD) field has undergone major changes in the last one to two decades. The scientific knowledge base from which the field operates and standard treatment and intervention protocols have changed substantially. So too have the plethora of substances with which communities have to contend. These dramatic changes require equally significant changes on the part of the workforce. The strategies required to develop an adequate workforce response to alcohol and drug problems extend well beyond the narrow traditional notion of "training". Systemic and sustainable changes within key organisations and agencies are also essential. A major paradigm shift is required to refocus our thinking away from an exclusive orientation on training to one which encapsulates factors such as organisational development, change management, evidence-based knowledge transfer and skill development.

These issues are captured under the broad umbrella term "workforce development". Core components of workforce development are outlined in this paper. The intent here is to provide an overview of the themes and issues that loosely constitute the concept we call workforce development and to assist in the development of the conceptual building blocks of workforce development. These themes and issues are then more closely considered in the following sections and papers in this volume.

Problems relating to alcohol and drug use have been an area of growing concern in Australia for some time. Over the past one to two decades specific efforts have been developed to strategically target alcohol and drug problems. These efforts have largely focused on a number of select areas of attention including demand and supply control and treatment and more recently and to a lesser extent prevention.

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Efforts to up-skill the diverse workforces that are directly and/or indirectly involved with the management or containment of alcohol and drug related problems have been less prominent.

Overall, the area of workforce development has received considerably less systematic attention than most other areas intended to impact on the alcohol and drug "problem". This paper addresses a set of very basic questions:

- what is this thing called workforce development?
- what does it mean?
- what does it encapsulate?
- what does it not include?
- who does it involve?
- why is it important?
- in what ways is it different to the traditional notion of education and training and how do these two approaches inter-relate?

Clearly, this is a broad sweep and as such most topics can only be dealt with in a cursory manner, but it is hoped nonetheless that it will be sufficient to capture much of the flavour of what constitutes workforce development, and what this might imply for the AOD field.

A CONCEPTUAL SEA CHANGE

Conceptually, workforce development necessitates a broad, comprehensive and multifaceted focus. It involves systems, settings and people - as reflected in the title of this volume. It represents a significant sea change in thinking about, and hopefully in response, to, the management of AOD problems.

For some, the term is used synonymously with "education and training", however, this is *not* the interpretation applied here. While education and training clearly form a part, or subset, of the wide range of activities that fall under the umbrella of workforce development, it is only that - a subset, as depicted in Figure 1 (Roche and McDonald, 2001). There are nonetheless, important issues in relation to education and training that are addressed later in this paper.

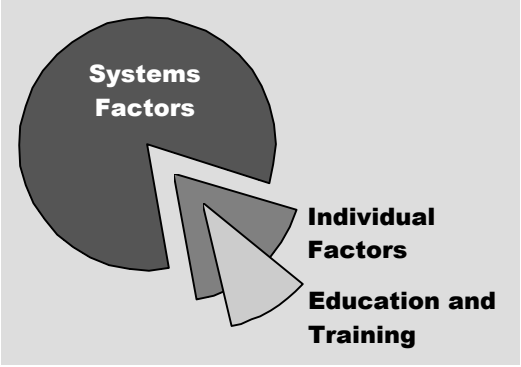

Figure 1: Education and Training as a Subset of Workforce Development

FACTORS IMPACTING ON WORK PRACTICE

The range of factors which affect work practice, include:

- education, training and workforce development strategies which address knowledge, attitudes and skills
- support strategies for skills and knowledge (eg information systems, mentoring, discussion opportunities, research)
- strategies to effect workplace structure and policy (eg incentives, performance monitoring systems, job specifications, resource allocation, management priorities).

At the most general level, workforce development includes policies, guidelines, management support and supervision and the legitimisation of initiatives through organisational and structural

supports. Its primary aim is to facilitate and sustain developments in the AOD workforce. It does this at different levels, targeting structural, organisational and individual factors as shown schematically in Table 1.

Table 1: Levels of Workforce Development

Level	Descriptor	Example
Level I: Systems	Workforce development aims to improve the functioning of the entire AOD workforce through addressing the systems and structures that shape it. While it includes activities that impact on individuals, its focus is much broader. It involves creating environments and systems that support the full range of workforce development strategies.	Examples of systems and structural factors include: • legislation • policy • funding • recruitment and retention • resources • support mechanisms • incentives.
Level II: Current Workers	At the individual level, workforce development encompasses methods of improving individual professional functioning. It means ensuring that opportunities to develop individual skills, knowledge and attitudes are of high quality, effective and well utilised.	This can include: • formal education • training • workplace training • mentoring • on-the-job learning • on-line learning • best practice guidelines.
Level III: Future Workforce	Development of the workforce also involves ensuring a sufficient pool of skilled workers for the future. A range of important factors and strategies need to be considered for future planning in this regard.	These might include: • recruitment strategies • offers of education and training • affordable and accessible education and training • ensuring adequate service funding to employ staff • support and facilitate policies.

The notion of workforce, and workforce development, is an increasingly common focal point of attention. This is particularly the case in the public health sector and also in human services areas more broadly. Important illustrations of what constitute workforce development are to be found in projects from other areas. Some examples are highlighted below.

For instance, in Britain at present there is a major effort directed at "workforce reform" as one strategy by which to salvage and revitalise the National Health Service (NHS) (Cochrane, 2001). Cochrane holds that "*Workplace change is …aimed at facilitating service change within evidence-based practice, patient-focused service designs and resource effectiveness including addressing the supply problems in the healthcare workforce. It is also building on successful innovation to-date*." It is relevant to note that in the AOD field, very little attention has been directed to the question of workforce recruitment and retention. In very recent times, this oversight has become more evident as many service providers find it increasingly difficult to attract and retain suitably skilled and qualified staff, even when funds are available to make much needed appointments.
In Britain, an initiative called The Future Healthcare Workforce: The National Project considered the fundamental issues to be addressed to ensure that the future workforce could meet the needs of

the health service. They undertook a review of the current characteristics of the workforce and identified pressures for change in work roles. These were seen in terms of fragmentation of the workforce, inflexibility in career structures, the workforce profile, labour market problems and the accelerating pace of change in service delivery. The commonalities between the factors impinging on the British health system and the AOD field in Australia are striking!

Locally, a diverse range of other workforce development projects have also recently emerged. These include the recently established National Public Health Workforce Development Project, established by the National Public Health Partnership. This project aims to develop and implement an agreed national strategic and cohesive approach to public health workforce development. This approach is intended to improve industry capacity and provide a sustainable public health workforce. Priority has been given to infrastructure and capacity development and enhancement and includes:

- development and implementation of a public health workforce program including development of an adaptive capacity in the existing workforce
- education initiatives to support the analytical and evaluation capacity of the public health workforce
- improved capacity in the use of information technology and telecommunications
- ability to undertake legislative review relevant to public health
- management of on-going intelligence functions for emergent issues
- maintenance of an effective research program
- strategies for ensuring new knowledge is incorporated into public health practice.

(National Public Health Partnership, 2001)

Similar projects have recently commenced in New Zealand (Hornblow, 2001) and Australia in relation to Indigenous health, asthma, hepatitis C and nutrition. The latter is the Public Health Nutrition Workforce Project (PHN). They will undertake work which:

- describes and quantifies the PHN workforce
- develops competency standards for the public health nutrition workforce
- reviews existing public heath nutrition capacity and infrastructure
- investigates workforce development opportunities and strategies.

The PHN workforce project has given priority to investigating existing infrastructure related issues and competencies. Research components of the project include:

- investigation of PHN workforce development issues from a range of perspectives including educators and academics, practitioners and employers
- a review of existing organisational infrastructure and its relevance to workforce capacity
- a national PHN workforce continuing education needs assessment
- consensus regarding PHN competencies
- an audit of PHN practices and intervention effectiveness.

(Hughes, 2001).

Similar concerns and directions have been articulated in regard to the community-based health education workforce involved in HIV/AIDS and Hepatitis C. Commentators note that this workforce is "mostly assumed" and *"there has been little research for policy, training and capacity-strengthening purposes, which investigates the workforce, its composition, origins, training, community attachment, HIV/AIDS, hepatitis C and related diseases experience, institutional settings, and the social resources the workforce employs in its work"* (Australian

Research Centre in Sex, Health and Society, 2000). In response to this situation, a two-year NHMRC funded project commenced in 2000 to investigate the HIV Community Education Workforce and Training (CEWT) sector in Australia with a view to informing systematic policy, training and capacity-strengthening initiatives. The CEWT study involves:

- a national survey of community health educators, investigating backgrounds, training experience, community attachment, agency settings, and major educational styles, activities and resources
- six action research projects describing and analysing the major pedagogical and curriculum development strategies and resources community educators bring to their daily prevention and health education work.

Hence, workforce development strategies are not unique to the AOD field. It is increasingly recognised as a major contemporary issue across a wide range of human services areas.

MONITORING THE AOD WORKFORCE

There are several themes that are common to the projects noted above. One is the attention directed to monitoring, measuring and identifying the characteristics of a given workforce. The rationale underpinning this is evident. Without a clear understanding of who forms the workforce it is not possible to ensure that appropriate strategies are in place to support their ongoing development. Moreover, it is not possible to monitor changes over time or to plan for future changes. Such information is of pivotal importance.

In Australia, virtually no information exists on the size of the specialist or generalist AOD workforce. At the most fundamental level, it is essential that Australia move toward the development of such an essential database. The United States of America have made moderate progress in this regard. Keller and Dermatis (1999) have reported the numbers of professionals identified as engaged in the AOD workforce in the USA, or those who are at least qualified to be so (see Table 2).

Table 2: Total Number of US Practitioners and Number of Certified Addiction Specialists by Health Care Discipline

Discipline	Workforce	Addiction Specialist Certified
Primary care	700,000	2,790 ASAM certified
Psychiatry	30,000	1,067 addiction psychiatrists
Clinical psychology	69,800	950 APA substance abuse certified
Social work	300,000	29,400[a]
Nursing	2,200,000	4,100 [a]
Physician assistant	27,500	185 [a]
Marriage/family therapy	50,000	2,500 [a]

[a] Self-described addictions specialist

No comparable data exist for Australia. Moreover, it would be difficult to produce such data for the following reasons:

- the essential data are lacking - we have no mechanisms for retrieving such information from the current workforce
- no formal "addictions" accreditation system exists, as has been established in the USA in relatively recent years

- harm minimisation, the formal basis of Australia's national drug strategy, involves a very broad spectrum of workers, and monitoring the generalist workforce in relation to level of skill and degree of involvement is challenging.

CAPACITY BUILDING

A concept that is central to workforce development is "capacity building". Capacity building is another of those terms that is widely used but tends to have a variety of different meanings depending on the context and setting within which it is applied. For example, in a more technical sense[1] it can be applied from a health promotion perspective in relation to communities, or more narrowly in relation to professional education and training. In the current context, it is used in its wider and more comprehensive sense.

Definitions and Underpinning Concepts

The concept of capacity building is perhaps best captured through sets of definitions and illustrations, as outlined below. It involves:

- resources to change the delivery system, and building the capacity of that system to maintain programs and to deliver new ones
- a shift in focus from individuals (exclusively) to organisations and systems
- thinking in terms of an investment
- capacity building can be thought of as enhancing the capacity of the system to prolong and multiply health effects
- workers devoting resources to changing the system, building the capacity of that system to maintain health promotion programs and to develop new ones
- capacity building is held to be instrumental in multiplying health gains.

Some capacity building programs aim to:

- distil the theoretical and practical knowledge developed and applied by a research team
- transmit this information in a manner responsive to the needs and interests of policy makers, managers and workers.

Dimensions of Capacity Building

There can be various dimensions to capacity building including:

- health infrastructure or service development
- program maintenance and sustainability
- increasing competence and capabilities.

The relevance and application of these different dimensions to AOD workforce development is immediately evident.

Similarly, the parallels between community capacity building and AOD workforce development are also self-evident. Community capacity building involves:

[1] Technical Capacity Building:

"Capacity building can be defined as the development of the technical expertise to plan, implement and evaluate chronic disease prevention and control interventions in a variety of settings" (Schwartz et al, 993). For example, in 1986, the National Cancer Institute began a major grant to enhance the technical capabilities of public health departments in cancer prevention and control. This effort, commonly referred to as "capacity building for cancer control focused on developing the knowledge and skills of health department personnel to implement intervention programs in cancer prevention and control" (Meissner et al, 1992).

- development and maintenance of partnerships
- a continuous and reciprocal transfer of knowledge
- flexible and innovative problem solving
- infrastructure emphasis - investment in social, human and economic capital.

A capacity building approach also contrasts with traditional *deficits* models that are often encountered in both community development work and education and training needs assessments. A deficits model focuses on areas of weakness or problems and attempts to rectify these. It is often a top-down, expert driven process. In contrast, capacity building focuses on enhancement.

Systems Enhancement: Not Skills Deficit[2]

One of the important conceptual leaps involved in a workforce development approach is the shift to "systems thinking". This is fundamental to grasping what workforce development is about. While, education and training can be an important part of a workforce development perspective, they essentially focus on the individual learner or worker. The deficit requiring rectification (through training) is seen to lie with that individual. No further consideration is given to organisational context in which that person operates or the wider system at large, which may ultimately determine whether specific policies or practices can be put in place.

Much of the recent international change management work in systems thinking is particularly relevant to an AOD workforce development approach (Senge, 1990). From this perspective, the protagonist for change would attempt to focus on interconnectedness, hierarchy and the working environment as a suprasystem. Systems thinking therefore requires a systems approach to problem solving - a new way of seeing. By necessity it entails strategic and corporate planning, organisational change, personal development, entrepreneurship and innovation (Bawden, 2001).

TRANSLATING RESEARCH INTO PRACTICE

Another important focus of workforce development relates to the manner in which research, knowledge and skills are translated into practice. There is a substantial body of new information being generated in the AOD field. This rapid knowledge expansion is exacerbated by changes such as globalisation and the information technology explosion. These changes create special challenges for workers and organisations in terms of the strategies required to filter, synthesise and absorb new knowledge.

As a result, there is a growing imperative in regard to the successful dissemination of quality research. High quality, evidence-based drug programs require relevant health, community and policing agencies to have the knowledge-base and skills to prevent and reduce drug related harm. This necessitates a timely and coordinated process of translation of the latest information and research into practice.

A critical component for achieving best practice in responding to drug problems is development of mechanisms to translate the latest research findings and innovative developments into practical strategies for the enormous range of frontline workers in this area. Such mechanisms are essential if Australia is to have the best outcome for its enormous investment in health, welfare, education and law enforcement systems. But this translation process is insufficient to achieve change by itself; it must be augmented by other strategies which focus on encouraging the adoption of evidence-based practice in the workplace.

[2] Phrase coined by Cecelia Gore and Lyn Stoker, NSW Health

The Strictures of Our Silos

A challenge increasingly articulated is not so much the need for more information, or new strategies or better clinical techniques, but rather determining the most effective means of utilising that which is already available and of known efficacy (Roche, 2001). Pushing back the frontiers of knowledge has proved less difficult than disseminating the existing wealth of information at our fingertips (Roche, 1995). A task made more difficult, some would argue, by the atomisation of much of our knowledge base (Wilson, 1998) - or in our current parlance "silos". Not only are our administrative and functional responses to AOD issues constrained by silo-like structures, so too are the knowledge and scientific bases which underpin these responses also contained within silos, albeit discipline silos. Hence, it is not only integration of services that is often sought but also a better integration of knowledge domains.

Evidence-Based Promotion of Best Practice

Beyond the current emphasis on evidence-based practice is the concomitant need for an evidence-base to underpin promotion of knowledge uptake and best practice. Bero et al (1998) highlight how there are many different types of interventions that can be used to promote behavioural change among (healthcare) professionals and implementation of research findings, but that there are very few good studies to guide decision making in this area. Bero and colleagues identified only 18 studies when they undertook a systematic review of the literature. No reviews were identified that had been published prior to 1988. Thus, seeking the evidence-base for ways to best disseminate current research findings and improve workforce practice is indeed a challenging task.

Bero et al's (1998) review also indicated that most researchers in this area do not attempt to link their findings to theories of behaviour change. This deficit has been highlighted previously by Davis et al (1995) who noted that there was no consistent theory, or set of behaviour change theories, supported. Rather, findings were consistent with several different theories. Clearly, there is potentially a wide range of theoretical perspectives from which practice behaviour change can be studied, and to-date no single theoretical perspective has been adequately validated by research to inform the choice of implementation strategies. Possible perspectives include diffusion of innovations, education theory, social influence theory, management theory, marketing, and a rational (or epidemiological) approach. Thus far, there has been little articulation of the differing theoretical perspectives from which the area can be investigated. This remains largely untapped territory and warrants future research endeavours.

The multifaceted and staged processes involved in translating research into practice behaviour are outlined in Figure 2 below. It is important to note that education and training comprise only a part of this model, taking equal place with "support strategies" and "workplace structure and policy".

The dissemination of evidence-based practice therefore entails:

- translating the latest research findings into practical responses which can be implemented by frontline workers
- disseminating those research findings and the evidence-based practice which is informed by them, in ways that are accessible to, and encourage adoption by, frontline workers and policy makers (who have limited opportunities to access and read the academic literature or reflect on how those findings may inform practice).

The process of dissemination is two-fold, initially focusing on the *translation* of evidence into practical responses for frontline workers, and then on the *adoption* of new practices in the workplace. Achieving adoption is by far the most difficult.

In addition to education and training strategies and skills and knowledge support strategies, workplace structures and policies have a significant impact on the likelihood that responding to drug issues will be practised in the workplace. Factors such as resource allocation, management priorities, policies and guidelines, work incentives (including pay levels), performance monitoring systems and job specifications are legitimate and necessary targets for those engaged in effecting work practice change.

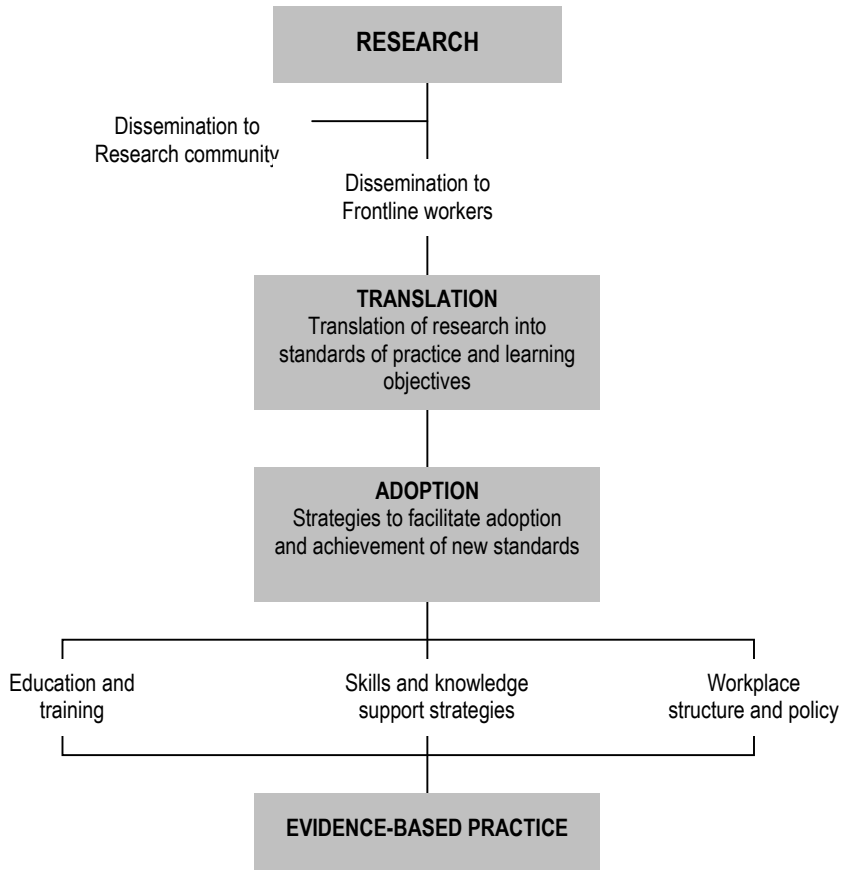

Figure 2: From Research to Practice: A Model of Change

Knowledge Management

Although there is a poorly established evidence base for workforce development, there remains a challenge for today's practitioner to manage the growing and often conflicting information available. A situation exacerbated by the electronic ease with which one can now access information. Various strategies have emerged around the world in response to the exponential growth in information and the flood-gate opening created by the internet. We have seen the emergence of Clearinghouses. While not a new concept, Clearinghouses, have proved to be increasingly valuable in the AOD field. For example, the Canadian Centre on Substance Abuse recently established their Virtual Clearinghouse on Alcohol, Tobacco and Other Drugs (www.atod.org). The internet-based virtual Clearinghouse evolved out of the expressed needs of substance abuse professionals for access to high quality information about the nature, extent and consequences of alcohol, tobacco and other drug abuse.

Similarly, a new journal has recently been produced in Britain called Drug and Alcohol Findings. The journal was first published in June 1999. Its development is predicated on the view that "*the real difficulty is helping those at the local level, translate the information on what works from findings into day-to-day practice."* The journal offers information that is *"already prospected, mined, refined, polished and set in context"* (Ashton, 1999). Ashton (1999) argues that "*it takes an*

experienced and knowledgeable practitioner to weigh up the implications, consider ethics and practicality, and assess them in the light of other guidance and policy priorities".

In the USA, the Association for Medical Education and Research in Substance Abuse (AMERSA) is the principal national organisation with a major focus on health professional faculty development in substance abuse. It is currently developing a strategic planning document to guide the improvement of health professional education on substance abuse and is implementing a national faculty development program. The targeted professionals include allopathic and osteopathic physicians (particularly family physicians, general internists and general paediatricians), chiropractors, dentists, nurses, nurse midwives, nurse practitioners, pharmacists, physician assistants, psychologists, public health professionals, social workers, and other allied health professionals.

Hence, there is a burgeoning growth in these types of more formalised, systematic responses to AOD workforce development. The field is moving well beyond the notion of the simple provision of short, or even more comprehensive, training programs. The organisation of information and the development of systematic strategies for workforce development are altering the face of our responses in this field. A principal area of interest is what is sometimes described as "technology transfer".

Technology Transfer

We know very little about the technology transfer process (Keller and Dermatis, 1999). The term "technology" in this context is not limited to the use of computers and the like. Technology here is used in a broader, more traditional sense and is defined as thus:

> *Technology: the science of the application of practical purposes; the application of scientific knowledge to practical purposes in a particular field.*
> (Keller and Dermatis, 1999)

In the USA, a systematic response has been developed to address this deficit. The Center for Substance Abuse Treatment (SAMSHA), established the Addiction Technology Transfer Center (ATTC) National Network to improve understanding about how valuable effective technology transfer is to our field. There are now 13 ATTC's across the USA and their vision statement is *"Unifying research, education, and practice to transform lives."*

The preface to their recently released book, The Change Book: A Blueprint for Technology Transfer (ATTC, 2000), states:

> *Although occasionally we like to try the new and different, on the whole, we humans resist change. We find comfort and a sense of confidence in the tried-and-true, in doing things the way we've always done them. Resistance to change is not just unique to the individual. The groups, institutions and disciplines that we are part of also resist change. They often create barriers, sometimes inadvertently, for those within their ranks willing to embrace change. Change is often seen as a threat to stability.*
> (ATTC, 2000:1)

Therefore, by definition technology deals with the application of "scientific knowledge" to practical purposes in a particular field. In other words the ATTC's argue, technology deals with how we use the tools of our trade to do our job and it is the job of research to constantly examine and evaluate these tools and any innovations or additions that occur over time. And, since technology changes over time, we depend on research to continually examine and evaluate technology changes for us. The technology available in the AOD field allows us to ask and answer

questions such as "how can we prevent or better treat clients?" or "is the outcome of this intervention better than another?" and so on.

Technology Transfer versus Training

Technology transfer, however, is not simply passing on "how to" information to others - that is training! While training is one of the essential tools in the technology transfer armamentarium, it is not the only tool and not necessarily the most important.

In a recent review of interventions which promote the implementation of research findings by frontline workers, the Cochrane Effective Practice and Organisation of Care Review Group found that passive dissemination of information is generally ineffective in changing workplace practice (Bero et al, 1998). Most of the reviews indicated that only modest improvements in performance were achieved after interventions and passive dissemination of information was generally ineffective in altering practices no matter how important the issues or how valid the assessment methods.

> It is not possible to teach others anything. One can only help them to discover it.
>
> Galileo

The review found that multifaceted strategies were more effective than single strategies, and that effective interventions for promoting behavioural change among health professionals included educational outreach visits, interactive educational meetings (ie workshops involving discussion and practice) and reminders or prompts for behaviour change (manual or computerised). Strategies using audit and feedback techniques, key practitioners as opinion leaders and local consensus processes were found to be effective if used in concert with other strategies.

On-line Education and New Technologies

It has been suggested that at the present time the real breach of borders is occurring between universities and corporations, between training and education, between universities and vocational colleges, between on-campus and off-campus learning experiences (Higher Education Series, 2000). One of the big shifts in the educational business world is towards corporate, virtual and for-profit universities, especially in the USA. Many such institutions have capacity to expand their education and training activities globally and hence enter the domestic markets of other countries. This is of critical importance to Australia at the present point in time as government funding to universities has significantly declined over the past three to five years. University revenue is increasingly dependent on domestic fee-paying courses and international students, who may be tempted to stay in-country and gain their education through on-line courses.

Corporate universities are global entities, with established telecommunications infrastructures, an avowed interest in retaining a highly skilled workforce with frequent re-training needs and an expressed dissatisfaction with the skills produced by the formal education sector. As such, they appear well placed to challenge the hegemony of existing education institutions. In an environment of "e-mania" they were (and are) seen as a threat. As aggressive global players they offer new education systems built not on bricks and mortar but in the electronic distribution of "star professors" and performers potentially reaching hundreds of thousands of students world wide.

Organisations that are dedicated to training as critical to core business admit that their education activities are fragmented because of geographical and cultural divisions, business product fractures and the practical difficulties of shifting established work/learning cultures (Higher Education Series, 2000). They are embracing on-line training enthusiastically because of the 15-50 percent savings to be made in lower travel per diem costs, not because costs are lower. In fact, costs are higher for on-line materials. Further savings for the large corporations can be made by piggy-backing education activities on existing infrastructure, such as satellite systems required for

company communication. In the Higher Education Series report (2000), undertaken by Cunningham and colleagues, they found that large companies acknowledged that the best use of on-line training was for "Just-In-Time" training, on-demand and desk-top delivered. Further they note that staff are resisting losing face-to-face training, particularly in the "soft skills" (teaming, communication, problem-solving, networking) critical to the new business world.

Nonetheless, the pull of the physical campus remains strong (Higher Education Series, 2000), and the corporates' education methods are noted to be sophisticated and professional, situating face-to-face learning events as centrally developed core curriculum, located between on-line activities. The internationalisation of consumer products sweeps up in its path all manner of things, including education and the technologies with which it is increasingly managed and delivered.

The InterNET and e-Tech

As we move into the 21st century the thing that will preoccupy, dominate and titillate us is technology. It will change the face of many common forms of decision making and commercial, political and social interaction. This is especially the case in Australia where we seem especially enamoured with new technological advances. Within the next two to three years, the Net and the World Wide Web will also become a major marketing tool (Gottliebsen, 1999). The new millenium will see technological change on a scale which is akin to the massive changes that occurred in the 1920's with the rapid introduction of electricity, telephones and motor cars. Gottliebsen (1999) argues that all businesses will need to change their mode of operating to survive in these changed times in the next few years. It is entirely probable that the same may apply to education.

While communication and commerce will become more technologically determined and driven, they will inevitably also become more simplistic and potentially erroneous. For example, see the concern over the lack of peer review process with material and articles posted on the internet (a recent example of this is the debate over purported Naltrexone deaths in Western Australia). So there will be increasing levels of information available, but much of it will be contradictory. There will be a low barrier threshold for information and its wide scale circulation. Lower literacy and skill levels will be required for the operation of electronic media, as much of it will be voice activated and will not require computing or keyboard skills for access and utilisation. The electronic access will also be via one's TV and kitchen appliances, in conjunction with PCs.

> I think there is a world market for maybe five computers
>
> Thomas Watson
> Chairman of IBM
> 1943

Gottliebsen (1999) maintains that in this commercial explosion of the Net, power will shift to the consumer and an anticipated greater demand for many goods. He further notes that to-date the characteristic that has marked the commercial survivors in this rapidly changing electronic world has been "nimbleness". How nimble will AOD education and training (or indeed workforce development) efforts be in responding to the implications of these enormous and imminent changes?

WHERE DOES EDUCATION AND TRAINING FIT?

Calls for Enhanced Training

Some have argued that training of health care professionals and other human services workers has not kept pace with the advances experienced in the field over the past 10-15 years (Roche, 1998; Keller and Dermatis, 1999). While clearly there has been some considerable progress in this area, critics maintain that the advancements achieved fall far short of what is required to make

substantial in-roads. Moreover, it is further argued that for significant change to occur in the AOD and related fields, vastly more complex and diverse strategies than merely the provision of training courses are required (Roche, 2001). At one level, there is a case to be made for a major conceptual shift away from the traditional and narrow confines of "education and training" to a broader more widely encompassing notion of "workforce development". A workforce development perspective allows for consideration of many of the boundaries and barriers that are frequently encountered by those instigating education and training initiatives.

> Education is not that we know more, but that we behave differently.
>
> John Ruskin

Considerable effort has been directed at identifying efficacious interventions to modify lifestyle behaviours (especially those that relate to drug use). Far less attention has been focused on disseminating these findings to frontline service-deliverers and trainers. It has been further argued that methods to train health care professionals in the most effective approaches to facilitate behaviour change are not well developed, some notable progress in the 1900's notwithstanding (eg Sallis et al, 1990; Rollnick et al, 1993; Sanson-Fisher et al, 1991; Schofield et al, 1994). Recent reviews of the impact of education on professional practice behaviour have often been disappointing (Ashenden et al, 1997; Davis, 1992, 1995, 1999).

It is unclear whether this is a weakness in the interventions, a failure to accurately disseminate the interventions and adequately train the intervention agents or a problem at the implementation phase. Nonetheless, strong calls have been made for more and better education and training opportunities. Single and Rohl (1997), in undertaking the evaluation of the National Drug Strategy 1993-1997, made a total of seven specific recommendations. Of these seven recommendations, the following had clear and direct implications for workforce development:

- *Recommendation #3*
  Train mainstream health, law enforcement and community officials to effectively minimise drug-related harm.

  For doctors, nurses, psychiatric workers, prison officials, social workers, pharmacists and law enforcement personnel to effectively deal with the problems of substance misuse, special training programs should be developed or enhanced. Medical schools, nursing schools and other professional education institutions should give greater attention to specialised education and training in alcohol, tobacco and illicit drugs.

- *Recommendation #5*
  Improve the ability to monitor the performance of the NDS and make new developments in prevention, treatment and research more readily available to health care practitioners, law enforcement officers and the public at large.

  In order to improve the utilisation of research and successful NDS programming, it is recommended that an Australian National Clearinghouse on drugs be created. The clearinghouse would create an inventory of drug programs and develop an electronic network of key resource centres for front-line professionals. It would develop a website on the Internet and present information in a non-technical fashion on recent developments in prevention, treatment, research and policy targeted at doctors, other health workers, social workers, law enforcement officers and government policy makers. Strong consideration should be given to locating the operational management of a national non-governmental organisation…

  (Single and Rohl, 1997:83-85)

Under each of the above recommendations, the Single and Rohl report made a further series of specific recommendations addressing each of the above specific areas.

Single and Rohl (1997) also stated that…

> *The development of education and training initiatives was limited in the early phases of the Strategy by the paucity of research and well-trained professionals in the field of substance abuse. Now the NDS has developed a critical mass of talented and highly qualified specialists and contributed to the development of a much improved knowledge base.*

Having reached this more mature state, it would seem appropriate that education and training be given more emphasis in the next phase of the NDS.

Single and Rohl recognised that a significant investment in workforce development is a necessary and crucial element in improving outcomes and quality in Australia's response to drug problems. A similar recognition lies at the heart of the new Directions in Australasian Policing (Australasian Police Ministers' Council, 1999). Three key directions are outlined in that document, the second of which emphasises strategies for professionalism and accountability in police. This direction incorporates a goal relating to education and training which enhances "employee competence and performance and on-going career development", while this and other goals incorporate an emphasis on the development of best practice policies and guidelines for police.

"Training" and its Cultural Shifts

Australia has long been perceived as being "anti-education". Until fairly recently, Australia had a relatively low school retention rate and similarly low tertiary level participation rates (at least in terms of university level). Important structural changes have brought about significant shifts in thinking about education and training. Some hold that *"the turning point was when we had the National Training Levy …employers got into the habit of training and they saw a result"* (Jasper cited in Laing, 2001). Laing argues that the tide has now turned and that there is increasing recognition on the part of employers that *"we live in a changing environment that if individuals don't join in ongoing training, they will paint themselves into a corner and risk becoming unemployable."*

It is therefore relevant to see the changes occurring within the alcohol and drug field in terms of education and training in the context of these broader cultural shifts in perception about the value and location of training in one's professional life. A number of other papers in this volume address this issue in more detail - see Section 5 in particular.

> If you think education is expensive, try ignorance.
>
> Bok's Law

Proliferation of Courses and Training Options

We have witnessed a substantial expansion in both the nature and quantity of AOD education and training opportunities available. This expansion has taken various forms:

- university graduate level training: most states now offer some form of university level specialised training in AOD. Such courses are usually intended for those currently engaged in the field in some capacity or other, ie they are in the form of ongoing professional training, and not usually offered as basic (eg pre-registration) training
- TAFE sector training, developed around specified competencies designated for various levels of performance, and often then used as an entry point to the above courses

- short courses, which can vary from a semester in length and be either accredited or not through to very short courses (ie half to two to three days in duration). These can be offered by a wide variety of educational providers
- integrated components within existing courses (eg subjects of parts thereof within standard undergraduate qualifying courses)
- in-house, on-site training - this is increasingly common in areas such as police, correctional services and perhaps to a lesser extent teacher training.

The array of training providers has also changed considerably. No longer are universities the principal providers at the tertiary level. The Australian National Training Authority (ANTA) initiated a number of reforms and a structure known as the National Training Framework. Three key features of the National Training Framework are 1) development of training packages, 2) national assessment arrangements and the 3) Australian Recognition Framework. The training packages are the most tangible and practical of the products. They are intended to be developed by industry and to incorporate standards and assessment guidelines endorsed within the Australian Qualifications Framework. They provide a model for the assessment of workers against the competency standards and the granting of a qualification at the appropriate level of skill. In many ways this contrasts with the traditional educational approach taken at university level. These changed perspectives are captured in Appendix 1: Traditional and Non-Traditional University Level Providers.

Training Packages

For some, the overly heavy emphasis on training packages is also not the most appropriate way to tackle education and training. While attempting to standardise content, reflect industry needs and ensure minimum competencies there is the problem that a package is only as good as the writer and the teacher who finally delivers it. Moreover, difficulties have been reported in the conversion of curricula concepts into the final packages. A critical review of this approach is required to determine whether this is a satisfactory way to develop and deliver training.

CONCLUSION

This paper has traversed considerably diverse territory. It has outlined some of the key issues that impinge on AOD workforce development. It has attempted to place some parameters, albeit flexible ones, around what constitutes workforce development. And, it has attempted to lay a groundwork that others may build on. As noted at the outset, this paper was not intended to be the definitive word on workforce development as it applies to the AOD field. It was intended to be indicative of new directions, ideas and ways of seeing the world that might be useful and constructive, if challenging, in our quest to manage alcohol and drug use problems.

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APPENDIX I

TRADITIONAL AND NON-TRADITIONAL UNIVERSITY LEVEL PROVIDERS

Traditional Characteristics	Non-traditional Characteristics
The university exists for the personal development and professional preparation of students; conservation, dissemination and extension of the discipline; and for social and intellectual critique	The university exists as a business for the professional and vocational education and training of its customers
"Full service organisation"; single campus, residential or commuter	Disaggregated service/support functions; distributed in small multiple campuses or electronically
Autonomous faculties	Managed functions
Selective	Mass
Comprehensive curriculum	Specialised curriculum
Accreditation	Accreditation
Student issues	
Students as apprentices, though increasingly learner earners, mostly school leavers, with large public subsidy	Students as customers, earner-learners, mostly mature age, paying full fees
Staff issues	
Academic staff are full-time teacher-researchers, career academics	Staff are practitioner-teachers, part-time, career professionals in other fields
General staff are specialist administrators or librarians	General staff are administrators, marketers, advisors OR involved in the teaching/learning process, including online designers and librarians (if employed at all under disaggregated model)
Integration of teaching process – teacher is curriculum developer, teacher, advisor, assessor	Disaggregation of the teaching process, separate centralised curriculum developers, teachers, advisors, markers
Learning	
Learning just-in-case; just because	Learning just-in-time
Set-time course	Exemptions for prior learning, including work experience
Large scale teaching at undergraduate level	Intensive small class teaching
Theoretical	Practical
Vocational preparation	Lifelong learning

Note: Contemporary universities may be anywhere along a continuum between these poles, and the same university may be at different points in any field.

Source: *Higher Education Series, 2000*