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A FRAMEWORK FOR PREVENTION

Simon Lenton, Senior Research Fellow, NDRI

ABSTRACT: Prevention activity often occurs at different levels of community and social network. At the smallest level it could occur among a group of drug users and their peers, at the largest level, it could take the form of international drug treaties and conventions. Clearly, there are a number of ways of facilitating changes at these different levels of community and social network. This paper describes a framework that has been used by the National Drug Research Institute. It is useful in explaining that various *prevention activities* can operate at different *community levels* and in different *contexts* and describes their *mechanisms of action*. The framework borrows from, and adapts, the 'alcohol prevention conceptual model' of Holder and the 'conditional matrix' of Strauss and Corbin. The framework is limited in that it is not a fully conceptualised, data based or theory driven model that specifies how its elements relate to one another. Despite these limitations it has proved to be useful in planning, understanding and describing prevention activity. (168 words)

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Author contact details:

Dr Simon Lenton PhD MPsych(clin) BPsych
Deputy Director and Senior Research Fellow
National Drug Research Institute
Curtin University E-mail: <S.Lenton@curtin.edu.au>
GPO Box U 1987 Phone: +61 8 9266 1603 direct
PERTH WA 6845 +61 8 9266 1600 main
AUSTRALIA Fax: +61 8 266 1611
Web:http://www.ndri.curtin.edu.au

This short paper describes a prevention framework first published in 1996 [1]. It borrows from earlier work, principally Holder's alcohol prevention conceptual model [2] and the conditional matrix of Strauss and Corbin [3]. The framework is crude in that it is not a fully conceptualised data based or theory driven model that specifies how its elements relate to one another. However, as a framework it has proved useful in both conducting and describing prevention activity that we have been involved in at The National Drug Research Institute in Perth. There are clearly questions as to the extent to which this framework differs from those models that have come before. The framework is offered here because of its utility rather than its novelty and the creative prior conceptualisation of others, especially Holder and Strauss and Corbin is respectfully acknowledged.

This framework, presented in its entirety in Figure 1, is an attempt to specify examples of *prevention activities*, and their *mechanisms of action*, which can be applied at various *community levels* from the international level at the most macro, down to the interaction of a small group of users using a drug, at the most micro level. Also relevant are the social, economic, political and geographic *contexts* at these various levels of community. The examples of prevention activity, mechanisms of action and contextual factors offered in the framework are not exhaustive and no attempt has been made to distinguish those that apply to illicit, versus licit, substances. In recognition of the 'busy' nature of Figure 1 this paper will unpack the framework both, schematically and textually, and explain its central components.

INSERT FIGURE 1 ABOUT HERE

Community level

Central to the framework, and an understanding of prevention more generally, is the notion of 'community'. Many definitions have been proposed. Thompson and Kinnie see a community as "a group of people sharing values and institutions" (p.48) [4]. According to these authors, communities incorporate a locality, an interdependent social group, interpersonal relationships, and a culture that includes values, norms and attachments to the community as a whole, as well as its parts. Pederson, Roxburgh, and Wood have noted that often the term is used to describe social networks that do not share geography [5].

Although prevention can occur with individuals, generally *prevention activities* are implemented within communities, sometimes small, sometimes large. Prevention of domestic violence, for example, may involve a 'community' of two in a primary relationship, as well as supports in the broader local community (eg. neighbours, family, police, refuges, welfare agencies). However, activities such as prevention of further global warming, may be carried out at the most macro level of the international community in terms of negotiating carbon credits, but at a more micro level local governments can review their waste management policy, and householders might recycle their waste and limit their use of fossil fuels. Thus *prevention activities* toward the one end, in this case prevention of further global warming, are often carried out at a number of community levels.

From the Strauss and Corbin conditional matrix the framework presented here adopts the concept of levels of community from the international level to the national, state, local community, organisational and institutional, group/individual /collective, interaction and, at the most micro, the action, or in this case, drug use itself [3]. Strauss and Corbin use concentric circles to portray the way these different levels of community in their matrix overlap. Thus, in the outermost ring is the international community, and within this is the national, within this the state, within this the local community, and on in to the level of action, which is the smallest of the concentric circles [3]. The Strauss & Corbin model suggests that the more micro levels of community are nested within the more macro structures. The framework offered in this paper recognises that people *may* simultaneously be members of a number of communities from a peer or drug using 'community' right up to 'the international community' (See Figure 2). However, it does not suggest that the levels of community are *necessarily* nested within each other. In the current framework, the levels of community (See Figure 2) are presented as layers of an inverted pyramid, with the more macro community levels in the larger top layers of the inverted pyramid, down to the more micro levels of community in the lower, smaller layers of the pyramid. This is not to suggest that individuals have to be members of communities at all levels. For example, individuals or peer groups may not see themselves as part of an organisational or institutional community.

Holder's alcohol prevention model described the drinking related factors that occur on five different levels from individual factors (such as personality, knowledge and drinking practices) to environmental factors from the immediate drinking environment through to the family, workplace and local community (e.g. local regulations, community norms and values), to the larger legal and cultural environment (e.g. state and federal policy, media portrayals and formal laws and regulations) [2]. The framework offered here in using the

term *community level* recognises that although organisations such as companies, labour unions or professional associations are not of themselves 'communities', it is true to say that communities exist among individuals who share workplaces, or other organisational or institutional affiliations.

INSERT FIGURE 2 ABOUT HERE

Contextual factors and mechanisms of action

The prevention framework described here adapted Holder's idea of 'factors influencing peoples behaviour' [2] at different levels by separating them into those factors which are largely *contextual factors* (See Figure 3), from those which are the *mechanisms of action* (See Figure 4). *Contextual factors* are those which are 'givens', or, at the very least, are extremely difficult to influence directly. They include economic, historical, geographic, and cultural factors. The *contextual factors* also encompass what others have referred to variously as 'social determinants' [e.g.6] or 'structural determinants' [e.g.7], which are more distal influences on behaviour, and 'risk and protective factors' [8] which are more proximal contextual factors.

INSERT FIGURE 3 ABOUT HERE

Mechanisms of action are principally human systems which are often established to control or influence behaviour. They may be more directly influenced than *contextual factors* and can be thought of as the levers which can facilitate prevention of dug-related harm. They include, but are not limited to, policies, laws, administrative systems, media, licensing, taxes and excise, law enforcement, community groups, schools, outreach, treatment, and educational materials. It should be noted that the framework presented here applies to a range of drugs, not simply alcohol.

INSERT FIGURE 4 ABOUT HERE

Prevention activity

One other feature of the framework, which is an addition to the synthesis of the two previous models described above, is the specification of the *prevention activity* (See Figure 5). *Prevention activities* are the things that prevention practitioner's do to influence the *mechanisms of action* in order to facilitate prevention of drug-related harm. If the *mechanisms of action* are the levers of prevention, *prevention activities* are the things that can pull those levers. At the most macro *community level*, the international level, *prevention activity* includes diplomacy and treaty negotiation. At national, state and local community levels it includes advocacy, lobbying, expert advice and consultancy, health promotion, public education supporting community action and conducting research. At the organisational or institutional level *prevention activities* include supporting organised labour and employer organizations. At more micro levels they include supporting treatment staff to do prevention, and establishing and supporting peer outreach and advocacy.

INSERT FIGURE 5 ABOUT HERE

The Role of Research

One of the important roles of prevention research is to collect and document the opinions, knowledge and experiences of those 'without a voice' among prevention stakeholders, who are often towards the bottom of the pyramid. This is particularly the case when considering illicit drug use where users may be marginalised in many ways, not least by the laws which proscribe their drug use and make public expression of their views as drug users a potentially hazardous activity. By disseminating these findings through expert advice to policy makers, and via the media to the public and their elected representatives, researchers can bring the experiences of those at more micro levels of community to those who may be able to make system changes at more macro levels of community. Research can challenge stereotypes, misconceptions and misunderstandings held by those at a number of community levels. Such misunderstandings can serve as barriers to effective prevention activities. The role of research in this regard can be particularly relevant when 'system' problems are being ignored while the dominant understanding is one emphasising individual deficits or behaviour.

Using the framework – a practical example

When faced with the task of identifying ways to prevent specific drug-related harms the framework is useful in identifying a range of *prevention activities* which could be applied at various community levels, considering what *mechanisms of action* these activities would aim to work through, and what *contextual factors* would need to be taken into account.

For example, the problem of preventing blood-borne virus transmission by drug injectors is ultimately about preventing drug-related harm at the most micro *community level* – that of a small group of drug users mixing up and using their drugs together. The framework presented here is useful in suggesting that the *mechanisms of action* at the interaction level could include such things as: access to necessary equipment such as clean needles and syringes, swabs filters, safe disposal containers etc.; and word of mouth or written information and knowledge about risks and how to reduce them. These mechanisms exist in an immediate social and physical *context* which might include such things as whether the location is secluded from others (especially police), whether the lighting is adequate, and the availability of clean water for injection. Mechanisms of action at the next most macro level, that of the group/individual/collective would include peer education and outreach, drug user advocacy groups. This would occur within a social context which encompassed group identity, norms, shared knowledge and so on. Prevention activities directly targeting mechanisms at the interaction and the group/individual/collective community levels could include establishing and supporting peer outreach, conducting research which identifies barriers to safer injecting, assisting in the development of peer based information materials, lobbying for safe disposal containers in locations where drug use and discarding used injecting equipment occurs and so on.

The framework is useful in assisting the prevention practitioner in asking the question what other *mechanisms of action* and *contextual factors* might be operating at more macro community levels which could serve as barriers or facilitators of harm prevention at these more micro levels. For example, effective prevention of blood borne virus transmission by drug injectors in Western Australia (WA) has been facilitated by existing *mechanisms of action* at a national level. These have included a national harm reduction policy, national public education media campaigns alerting the community to the risks of needle sharing, and health funding targeted at HIV and injecting drug use. At a state level, since July 1987 the Health Department of WA has administered a program of providing new needles to Injecting drug users. However, a legislative barrier was that up until 1994 pharmacists needle and syringe exchange workers and other health workers could theoretically be charged under the Aiding and Abetting provisions of the WA Criminal

Code [9]. Although it appeared that few, if any, providers were charged, changes to *The Poisons Act* which provided protection for workers in 'authorised needle and syringe programs' removed one of the barriers to pharmacists and others participating in provision and sale of injecting equipment. Whilst needle provision occurred despite the legislative ban, *prevention activities* undertaken by public health officials such as providing expert advice contributed to changing organisational policies and the laws themselves (*mechanisms of action*). The resulting legislative change was one of the factors which facilitated expansion of the needle provision scheme and made for more effective prevention of prevention of blood borne virus transmission by drug injectors.

Other *mechanisms of action* which have been influenced at a State level in WA have included harm reduction health policies and public education campaigns, coordination of needle distribution, education for health workers, police operational procedures which explain the potential adverse impacts on public health from police from staking-out needle distribution points, and a survey of community attitudes which showed high levels of support for needle provision [9, 10]. *Prevention activities* undertaken by health workers and others at an organisational level, included working with the professional body of the pharmacy profession, the Pharmaceutical Council, to run in-service training for community pharmacists in explaining the rationale for needle and syringe programs, addressing barriers to pharmacists involvement, and the important role that retail pharmacy could play in this as a public health initiative.

At a local community level, health workers provided health education, policy advice and developed materials and structures (*prevention activities*) to deal with needles discarded in public places and private entertainment venues. Poorly discarded needles raised understandable concerns among local councils, schools, the local media, and the local community generally and had the potential to undermine support or tolerance of needle and syringe programs (*contextual factors*). Public education materials about what children should do if they found a discarded needle were made available through schools and community groups and policy assistance and liaison was conducted with The Local Government Association, the state Education Department and the bodies representing independent and non-government Schools (*mechanisms of action*).

As mentioned above, the framework suggest that research can play a particular role in documenting what happens at the more micro community level which can allow the experiences of drug users, who otherwise had little say in prevention activities aimed at changing their behaviour, to be conveyed to those further up the pyramid to facilitate effective prevention activity. One, and by no means the only, example of this in WA was

research conducted in 1995 with 511 drug injectors who purchased their needles in pharmacy. This showed that many had shared other injecting equipment such as spoons and filters and that the cost of needles and the numbers sold per pack lead to needle sharing and re-use by some injectors [11]. These findings were conveyed to both needle kit manufacturers (Organisational level) and health bureaucrats (State level) responsible for prevention of blood-borne viral infections among IDUs. Partly as a result, needle packs containing three and five needles and different combinations of spoons, water ampoules and swabs were made available in WA pharmacies from August 1998 (Health Department of Western Australia. Personal communication, 4 August 1998).

Largely due to the early adoption of HIV prevention strategies among IDUs, WA is thought to have one of the lowest rates of HIV infection among drug injectors in the developed world, with only about 1-2% of injectors infected [12, personal communication, Health Department of Western Australia, 1993]. This example ideally shows how the prevention framework presented here can help identify what *prevention activities* could be undertaken to identify various *mechanisms of action* at various *community levels* to help prevention of BBVIs transmission among people who inject drugs. It helps to identify what *contextual factors* at various community levels might facilitate or mitigate this activity.

Utility of the framework

As already stated, the framework is not a fully conceptualised data based or theory driven model that specifies how it's elements relate to one another. None-the-less it can be a useful tool as the beginnings of a menu of things to be considered when embarking on prevention activity. The framework can:

- Inform development of comprehensive prevention programs.
- Provide a ready tool for explaining *prevention activity*.
- Help explain how *prevention activity* at one *community level* can be hindered or facilitated by factors *(mechanisms of action* and *contexts*) at other levels.
- Identify macro social determinants and legislative structures which may need to be addressed to support prevention activity at other levels.
- Explain role of research in prevention
- Point to the important role of dissemination of research results to the public, especially when talking about policy relevant research.

Conclusion

The prevention framework first published by Lenton [1] is a further conceptualisation of the 'alcohol prevention conceptual model' of Holder [2] and the 'conditional matrix' of Strauss and Corbin [3] from which it borrows. Despite its limitations it has proved to be useful in planning, understanding and describing prevention activity. The framework has informed recent Australian thinking about prevention substance use, risk and harm in Australia [13, 14].

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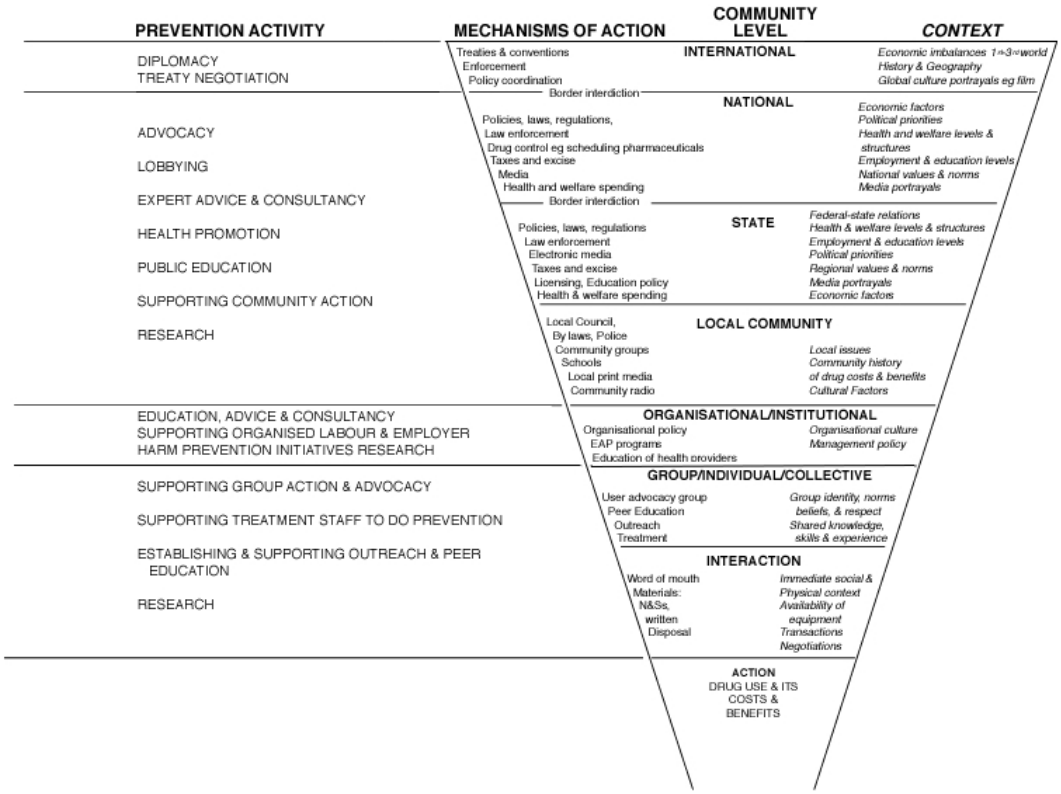

Figure 1: The Prevention Framework

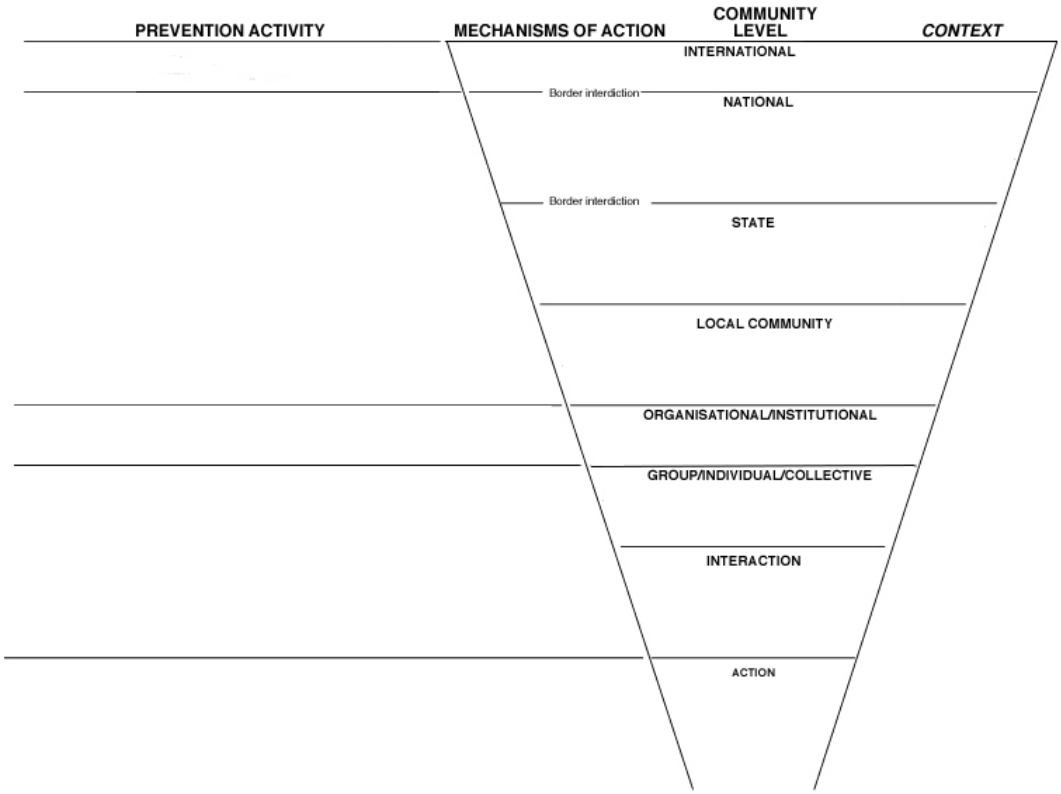

Figure 2: Community Levels in The Prevention Framework

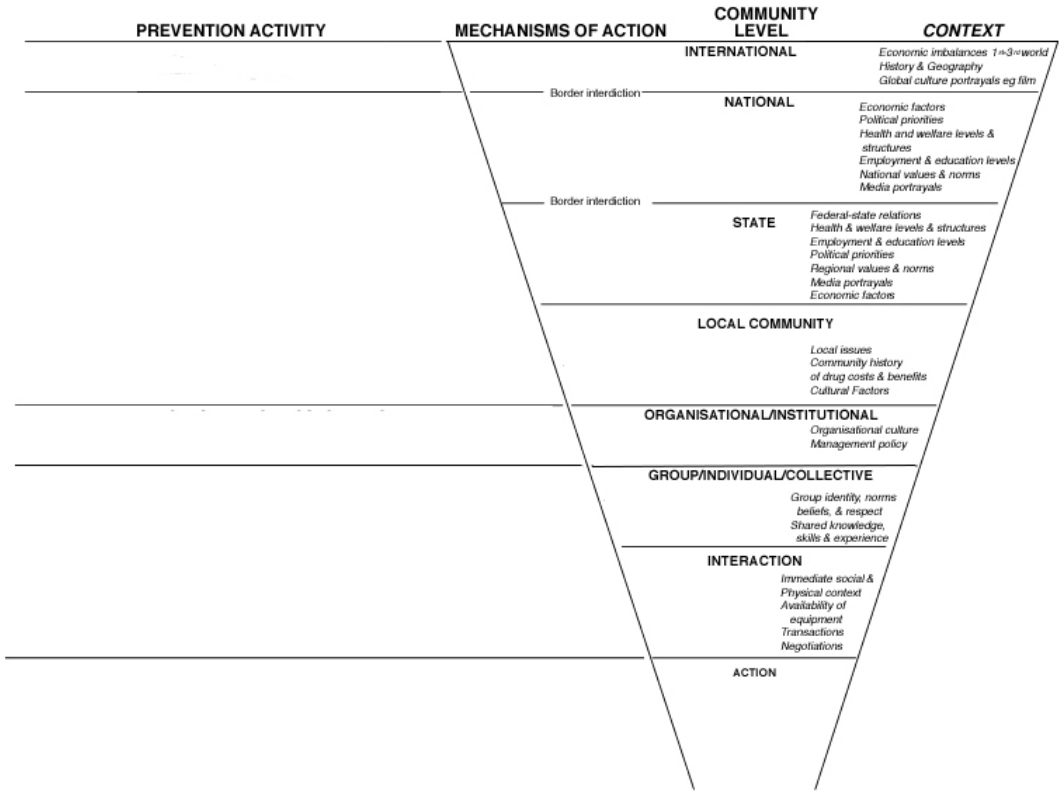

Figure 3: Context Factors in The Prevention Framework

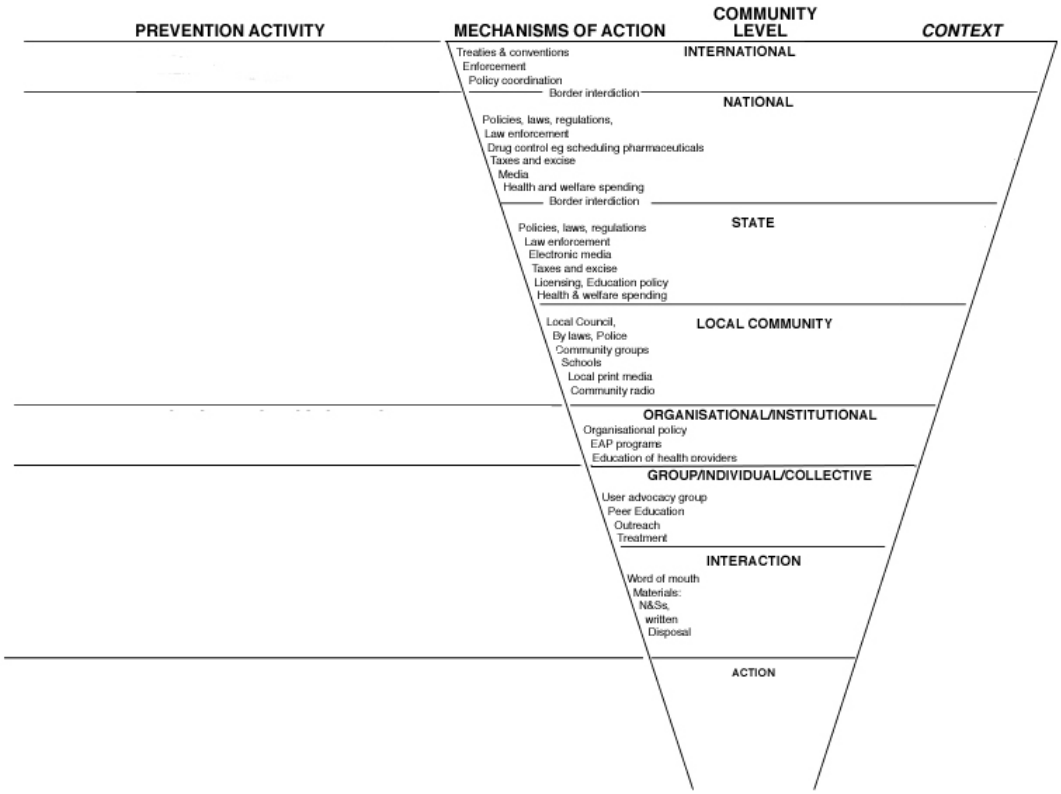

Figure 4: Mechanisms of Action in The Prevention Framework

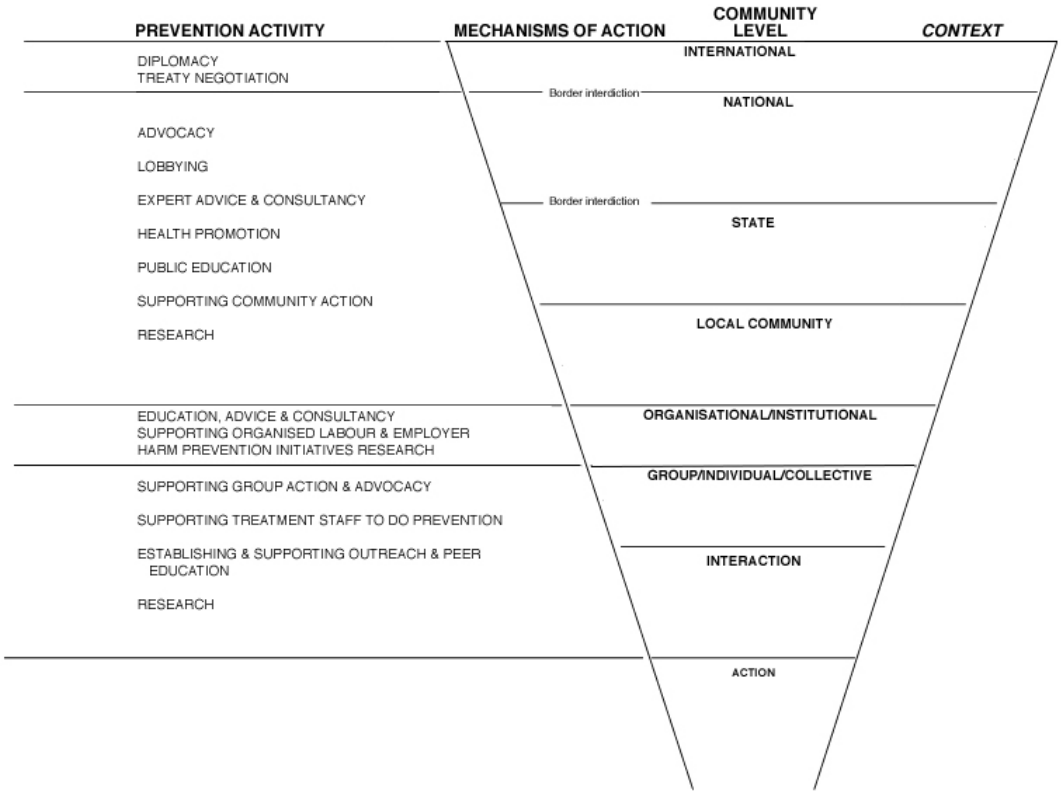

Figure 5: Prevention Activities in The Prevention Framework