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ESAPP Full Report
Evidence Synthesis and Application for Policy and Practice Project
FULL REPORT

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1.0 Introduction

Over the past 30 years of responding to HIV the Australian community, policy and public health sectors have moved from a crisis response to a sustained and adaptive response. The Australian partnership approach to HIV was recognised for many years as highly successful compared to other countries.

Over the past decade, however, Australia has experienced resurging and emerging epidemics across a number of communities, and lower levels of community engagement with traditional approaches and messages. In recent years there have been major international developments in understanding the role of antiretroviral (ARV) treatments in preventing HIV transmission. In accordance with this, there has also been an increasing recognition of the need to integrate individual behavioural and biomedical interventions with broader social and structural approaches for HIV prevention—coined as ‘combination prevention’ (Bertozzi, Laga, Bautista-Arredondo, & Coutinho, 2008; Coates, Richter, & Caceres, 2008; Gupta, Parkhurst, Ogden, Aggleton, & Mahal, 2008; Hankins & de Zalduondo, 2010). Horton and Das, in a 2008 commentary published in the Lancet, noted that effective combination prevention required a rethink about the approaches used to evaluate prevention and a recognition that treatment and prevention are ‘inextricably connected’ (Horton & Das, 2008). It has been well-identified that the incorporation of ARV into prevention will involve significant social, political and economic challenges (Kippax & Stephenson, 2012; Sullivan, 2012).

Consistent with the Ottawa Charter for Health Promotion, the Australian HIV response has long recognised that interventions working across multiple social, political, economic, behavioural and health service levels, and operating within supportive environments, are more likely to reduce HIV transmission and impact than those working at one level (Moodie, Edwards, & Payne, 2003) and this was again recognised in the current National HIV Strategy (Australian Government, 2010).

The steady increases in HIV transmission have also led to calls in Australia for a ‘combination prevention’ approach (Whittaker, 2011), including the recent Melbourne Declaration, which emphasised the need for a range of structural, biomedical, community and behavioural responses to 1) increase access and uptake of voluntary HIV testing; 2) enhance access to and uptake of ART; 3) make pre-exposure prophylaxis available; and 4) strengthen the partnership response and enabling environment (www.melbournedeclaration.com, 2012). Parallel to the Melbourne Declaration, 2012 also saw the release of the HIV community sector’s detailed plan and recommendations for Australia to meet its commitments in the United Nations 2011 Political Declaration on HIV/AIDS, and ‘re-engage all Australia’s HIV response partners to ensure Australia’s HIV partnership delivers a best practice model of HIV prevention and initiatives to improve quality of life for all people with HIV’ (AFAO, 2012a).

These developments reinforce the ongoing complexity of HIV prevention and health promotion. Researchers and policy-writers have identified that many complex public health challenges, such as HIV, can be termed
‘wicked problems’ (Rittel & Webber, 1973). These are characterised as policy issues that are continually evolving, have many causal levels, and usually involve changing the behaviour of groups or populations with no single solution that applies in all circumstances (Australian Government, 2007). Wicked problems usually require innovative and comprehensive solutions working across both internal and external organisational boundaries, involving communities and stakeholders in policy-making and implementation, which need to be modified in light of experience and on-the-ground feedback. All this poses challenges to commonly used hierarchies of evidence, reductionist and linear-based policy analysis methods and program implementation. It highlights the need for real-time monitoring, evaluation and learning to feed into decisions (Australian Government, 2007; Signal et al., 2013).

In light of the changing prevention landscape and resurgent and emergent epidemics in Australia and internationally it is essential that the different levels of HIV prevention and health promotion work in unison and are evaluated in unison. With these challenges in mind, the ESAPP project undertook to:

- Identify the areas of HIV prevention where the published evidence of effectiveness and quality practice is most, moderately, or least developed
- Identify the monitoring and evaluation methods used in day-to-day practice in community organisations to contribute to that evidence (Australia and similar epidemics)
- Review capacity-building approaches in Australia and internationally to increase the quality of evidence being developed in community-based HIV health promotion
- Develop a Monitoring, Evaluation and Learning and Quality Improvement framework for community HIV prevention to support building evidence for policy and practice
- Develop an example application of the Monitoring, Evaluation and Learning Framework to community-based HIV prevention and health promotion.

The report presented here is a summary of a larger and more comprehensive document outlining the reviews, framework and application:


2.0 Where is the published evidence about HIV prevention and health promotion most, moderately and least developed?

2.1 INTRODUCTION

This section summarises a review of published literature undertaken to gauge the level and type of evidence available to guide the different levels or components of HIV prevention and health promotion work. The review was undertaken with a specific recognition of the recent mobilisation of combination prevention and more recently ‘treatment as prevention’ after publication of a series of trials and developments, outlined in section 2.3.

HIV prevention and health promotion interventions operate at a number of levels, ranging from individual through to broad community level, and employ a number of theoretical frameworks for social and behavioural change. This discussion paper assumes a level of understanding of the range and types of interventions. A summary of common interventions and popular theories can be found in other reviews (for examples see Bertozzi, Laga, Bautista-Arredondo, & Coutinho, 2008; Coates, Richter, & Caceres, 2008; Gupta, Parkhurst, Ogden, Aggleton, & Mahal, 2008; Piot, Bartos, Larson, Zewdie, & Mane, 2008; Rotheram-Borus, 2009; Schwartländer et al., 2011; Spire, de Zoysa, & Himmich, 2008).

HIV prevention strategies operate across multiple prevention categories, such as individual, community, structural and biomedical, and there is not always agreement about the category into which a specific strategy should be grouped. Much of the literature in relation to prevention interventions and programs does not distinguish individual, small group and community level health promotion; rather, it tends to collapse these prevention strategies into either behavioural or structural domains of prevention. While there is considerable blurring between the prevention levels, for the purposes of this review we have chosen to distinguish between biomedical and technology, individual and small group, community, structural, and system levels of interventions and programs:

- Role of new biomedical and technological tools in HIV Prevention (section 2.3.1)
- Individual and small group level interventions (section 2.3.2)
- Community level interventions (section 2.3.3)
- Structural level interventions (section 2.3.4)
- Integrated health promotion system (section 2.3.5).

Within these sections, any additional commentary regarding targeted programs has been limited to those targeting gay men and other men who have sex with men, people living with HIV (PLHIV), and priority
culturally and linguistically diverse communities (CALD), as these are the communities most affected by sexual transmission in the Australian context. While some of the categorisation of levels and communities implies a clear separation that may not be accurate in practice, it provides a mechanism by which to discuss the strength and weaknesses of the current evidence base.

2.2 METHOD OF REVIEW OF TYPES AND QUANTITY OF EVIDENCE ACROSS COMBINATION HIV PREVENTION AND HEALTH PROMOTION

The review focused on systematic reviews, narrative reviews and commentaries on the evidence to guide the prevention of sexual transmission of HIV in concentrated epidemics. The purpose of this review was to gain an insight into the areas where the evidence was most, moderate or least developed. The inherent problems and inconsistencies of applying a narrow hierarchy of evidence approach to an evidence base that is social and psychological as well as biomedical has been well-identified, particularly in relation to the breadth of the evidence base, varying applicability of different methodologies, analytic levels of explanation, nonlinear interrelationships between interventions, and the length of the causal chain between interventions and outcomes in public health (Auerbach, 2008; Kelly et al., 2010; Kippax, Holt, & Friedman, 2011; Tang, Choi, & Beaglehole, 2008). The review, therefore, was not restricted exclusively to systematic reviews of control trials and included reviews of expert opinion on current research strengths and gaps.

The following inclusion and exclusion criteria were used.

Inclusion

Systematic reviews, narrative reviews, and commentaries were included if they focused on or included analysis of:

- HIV prevention evidence and evaluation published since 2006 (this recognises the significant changes and implications of biomedical prevention since 2006 that are shaping the current Australian and Global HIV prevention context)
- Prevention of sexual transmission of HIV in developed countries with comparable social and economic conditions to Australia and similar concentrated epidemics
- Programs across multiple priority groups, or, if the focus of the literature was a single priority group, those priority groups selected for additional focus were PLHIV, gay men and priority CALD communities, due to the likely impact of voluntary testing and treating approaches as well as experiencing resurging or emerging epidemics.

All studies were published in English.

Exclusion

Two important exclusion criteria that limited the scope of this review were as follows:

- Reviews focused exclusively on preventing HIV transmission via injecting drug use or mother to child transmission, or public health mechanisms not being proposed in Australia, such as male circumcision, were not included.
While it is recognised that most population groups overlap to some extent, reviews focused exclusively on programs working with sex workers, injecting drug users, Aboriginal and Torres Strait Islander people, and people who travel to and from high prevalence countries but are not members of priority CALD communities were not included.

A range of major publication databases were searched (AIDSinfo, Cochrane Library, EMBASE (Ovid), Informit Health, Medline, Oxford scholarship online, ProQuest, SAGE, SCOPUS (Elsevier), Web of Science [ISI]) using over 20 search terms (such as HIV prevention; HIV health promotion; health promotion practice; combination prevention; individual, group, community, and structural interventions; health promotion; and public health systems theory).

This was supplemented by reviewing a number of websites of key organisations in Europe (primarily UK and Germany), North America and Australasia. Documents were also sourced through a satellite session on Building Quality and Evidence in HIV Prevention at the 2012 International AIDS Conference (Brown, Wentzlaff-Eggebert, & McColl, 2012), and recent literature related to the recommendation of the reviews such as systems approaches and continuous quality improvement was included. Over 300 documents were utilised in the review.

2.3 Evidence Base for Levels of HIV Interventions

2.3.1 Role of new biomedical and technological tools in HIV prevention

The capacity of condoms and other barrier protection to prevent HIV transmission, and the associated social and structural issues, has been well-recognised for some years (Sullivan, 2012). This also applies to the association between sexually transmitted infections (STI) and the acquisition and transmission of HIV (Fleming & Wasserheit, 1999), and the role of STI prevention and management to support the reduction of HIV transmission with results differing across contexts (Ng, 2011; Rotheram-Borus, 2009). These will not be discussed in detail here. This section will focus on more recent developments in biomedical and technological tools.

In 1996, antiretroviral therapy (ART) became widely available in developed countries including Australia, providing effective treatment of HIV. The introduction of ART radically reduced mortality and morbidity rates in the developed world and led to PLHIV leading longer and healthier lives (Hart, 2010; Murray, 2011). Ever since the announcement in 1996 of the success of triple combination therapy in reducing viral load and prolonging the lives of PLHIV, community-based HIV organisations have been addressing this issue in campaigns, group-based peer education, and policy (AFAO, 2000). The introduction of the ‘Swiss Statement’ in 2008 (Goodman & Noonan, 2009) mobilised significant debate. In Australia the initial policy response was one of caution as few studies had included significant numbers of male serodiscordant couples to understand the impact of ARVs in preventing HIV transmission. There have also been inconsistent results from ecological analyses, such as San Francisco, where most HIV infections occur in men who have sex with men (MSM), suggesting that decreases in community viral load were associated with a fall in the incidence of HIV.
infection. However, reports from Australia after the introduction of antiretroviral therapy did not show similar effects (Das, Chu, & Santos, 2010; Law, Woolley, & Templeton, 2011; Sullivan, 2012).

In the past few years the growing body of evidence indicating the potential of antiretroviral (ARV) drugs in preventing sexual transmission of HIV has increased significantly. Several clinical trials have reported positive results in relation to biomedical prevention strategies such as pre-exposure prophylaxis (PrEP), microbicides and treatment-for-prevention. These include the Iprex trial, the CAPRISA Microbicide Trial, and, most notably, the HPTN 052 trial, which demonstrated a 96% reduction of HIV transmission among serodiscordant heterosexual couples in which the HIV-positive partner was treated from the time of diagnosis vs. waiting until their CD4 count fell below 350 (Cohen, 2011). The HPTN 052 included a small number of MSM, but the majority of participants were heterosexual. Trials focused on MSM are currently being conducted to enhance this evidence base.

Although a number of the Iprex trial sites, such as San Francisco and Boston, are continuing to provide access to PrEP through an open label trial, there is currently no published evidence about the effectiveness of PrEP outside a controlled clinical trial. The evidence from clinical trial settings indicates that adherence is central to the efficacy of emergent biomedical prevention strategies such as Prep and microbicides and therefore new behavioural, community and structural interventions will need to accompany their roll-out. While the importance of community mobilisation and leadership is recognised as an essential component of successful HIV prevention, there is currently little research that explores how such mobilisation occurs and what sustains it over time (Coates, 2008) and early results indicate significant recruitment and adherence challenges (Hosek et al., 2013).

Some but not all results from mathematical modelling lend support to the population level use of treatment for prevention (Padian, 2011). Beyrer (2012) observed that while the current scientific evidence supports that ART-based prevention is feasible, it is also expensive and therefore its widespread use will require reduction in drug costs in high income countries. Cremin et al. (2013), in recent mathematical modelling analysis, suggested that earlier ART treatment and use of PrEP had significant cost and reach limitations undermining their effectiveness, but used in combination with other interventions would be the most effective in achieving reductions in HIV.

Voluntary HIV testing is an essential part of almost all programs for HIV prevention, and this will also be the case for new ARV-based prevention strategies such as PrEP and treatment as prevention (Padian, 2011). The efficacy of rapid testing has also significantly improved in recent years (Keen & Forbes, 2010) and Australia is currently implementing programs to improve testing access, including the introduction of rapid testing in clinical and community settings for priority populations.

The implications of this growing body of evidence for policy and strategy in HIV epidemics are yet to be fully realised. It has raised hope for people living with HIV and communities most affected by HIV, as well as significant practical, logistical and ethical issues. However, as has been the experience throughout the HIV epidemic, the policy response cannot wait until the evidence is perfect. The use of the HPTN 052 and other treatment as prevention studies to guide HIV prevention policies is now well-established. The United States has recently updated antiretroviral treatment guidelines to recommend initiation of treatment for all people...
with HIV infection (regardless of sexuality), with a particular emphasis on those with a CD4 count below 500. The guidelines also note the risk of transmitting HIV to partners as a criterion for initiating treatment. The current Australian National HIV Strategy identified the potential (Australian Government, 2010), and the recently released NSW HIV Strategy has adopted a treatment as prevention approach and advocates a change to the PBS prescribing criteria to ensure that appropriate access to treatment for people with HIV is achieved (NSW Government, 2012).

Biomedical innovations may be identified as the next wave for HIV prevention but the social and behavioural changes required for each innovation at the individual, group, community, structural and systems level will need to be understood and mobilised if the benefits are to be maximised (Adam, 2011; Kippax & Stephenson, 2012; Rotheram-Borus, 2009).

2.3.2 Individual- and small group-focused HIV prevention and health promotion

The majority of published research and evaluation evidence in regard to HIV prevention has focused on interventions at the individual or small group level and on behaviour change within individuals; this is reflected in most systematic reviews and meta-analyses (Anstee et al., 2011; Downing, Jones, Cook, & Bellis, 2006; Holtgrave, 2006; Rotheram-Borus, 2009). Most individually focused interventions included in the published evidence are underpinned by behaviour change theories drawn from social-psychology and behaviour change models. They seek to motivate a shift in a person’s beliefs and attitudes towards sexual practices and to develop self-efficacy, and range from clinical counselling interventions, to voluntary counselling and testing, to structured peer-based mentoring, as well as computer-mediated interventions. Group level interventions were commonly implemented using a structured peer-based model underpinned by theoretical frameworks and principles such as adult education, social cognitive theory, self-efficacy through observational learning, mastery experiences and social persuasion (Simoni, Franks, Lehavot, & Yard, 2011) and to some extent diffusion of innovation. Peer-based group interventions often include multiple components such as health information provision, skills-building and practice, social support and influence, role-play, personal assessment and goal development (Herbst et al., 2007).

The systematic reviews and meta-analyses reviewed verified that risk reduction in response to evidence-based individual and small group interventions to change HIV risk behaviours ranged between 25% and 50% (Downing et al., 2006; Herbst et al., 2007; Herbst et al., 2005; Holtgrave, 2006; Johnson, Scott-Sheldon, Huedo-Medina, & Carey, 2011; Johnson et al., 2009; Kang, Skinner, & Usherwood, 2010; Lyles, Crepaz, Herbst, & Kay, 2006; Noar, Black, & Pierce, 2009; Rotheram-Borus, 2009; Sullivan, 2012). However, results from the few studies that monitored changes in HIV incidence have been much less consistent (Anstee et al., 2011; Sullivan, 2012).

Meta-analyses have also identified factors and mechanisms that support their efficacy. For example, interventions that were based on sound behavioural theories and were interactive and focused on one-on-one, small group and community level skills-building were generally found to be the most effective. The least effective programs were those that used passive, didactic and fear-inducing messages. The research
Evidence indicates that effective intervention facilitators require expert skills and knowledge as well as empathy with clients. In general, interventions were more effective when delivered by expert facilitators with similar cultural, gender, age, behavioural and background characteristics to the participants (Lyles et al., 2006; Rotheram-Borus, 2009), which has been the core of many peer-based programs used within Australia. However, beyond these broad statements, there is little specificity available in the evidence to guide the adaptation of programs across contexts and cultures. Most reviews have highlighted that further research is necessary to determine what works best, in what context, and with whom (Herbst et al., 2007; Sarna & Weiss, 2007; Simoni et al., 2011).

**Gay men and other men who have sex with men**

The evidence for individual and group level programs targeting gay men is largely represented within and consistent with the systematic reviews above. However, most reviewers have identified that the number of programs in the literature is low given the prevalence of gay men in the HIV epidemic, and that the majority of these programs in developed countries have involved Caucasian gay and other MSM (Downing et al., 2006; Herbst et al., 2007; Higa et al., 2013). There has been less published evidence concerning programs targeting gay and other MSM from minority cultural and ethnic communities within western countries. However, this gap in the published evidence has been reducing in recent years (Miller, Forney, Hubbard, & Camacho, 2012).

**People Living with HIV**

Most published evaluations of programs for PLHIV have focused on either prevention of transmission risk behaviour or in improving treatment compliance. It should be noted that all the studies reviewed were conducted prior to the more recent mobilisation of treatment as prevention in program policies.

Evaluations of the impact of behaviour-change and/or support interventions for PLHIV outside clinical services reveal mixed results, due in part to varied program aims, structure, evaluation mechanisms, and training (Downing et al., 2006; Kerr, Miller, Galos, Love, & Poole, 2013; Millard, Elliott, & Girdler, 2013; Simoni, Pantalone, Plummer, & Huang, 2007; Yard, Huh, King, & Simoni, 2011). Generally, evidence-based programs have needed to be adapted heavily to meet local community and structural differences with little guidance (Kalichman, Hudd, & DiBerto, 2010). While most reviews expressed confidence that peer-based interventions for PLHIV had some positive effect, the lack of individual study moderators has limited the development of guidelines as to what types of interventions were recommended for different contexts (Simoni et al., 2011). There has been less published evaluation of reducing impact of stigma, improving self-efficacy, or indicators of improving treatment decisions (as opposed to treatment compliance) (Crepaz et al., 2006; Sarna & Weiss, 2007; Simoni et al., 2011).

Millard et al. (2013) undertook a systematic review of the effectiveness of self-management education program studies to improve physical, psychosocial, health knowledge, and behaviour for PLHIV. The review found there was sufficient randomised control trial (RCT) based evidence to show significant improvements across most outcomes in the short term. However, there was insufficient evidence to determine the long-term outcomes of HIV-specific self-management interventions (Millard et al.).
People from migrant and culturally and linguistically diverse communities

Few systematic reviews of interventions targeting migrant communities in high income countries were found. These reviews, defined around outcome measures and study design criteria, identified the dearth of studies that evaluated interventions with immigrant and ethnic minority populations in high income countries (McMahon, 2010; Prost, Elford, Imrie, Petticrew, & Hart, 2008; Uccella, 2010) and this was also raised in other broader reviews (Anstee et al., 2011; Downing et al., 2006).

In a systematic review published in 2008, Prost et al. found no interventions in the published literature, and only 36 interventions through grey literature. The focus of most interventions was on information interventions to raise awareness of HIV and increase knowledge of available services, and few were secondary prevention interventions for people living with HIV. Few interventions had been critically assessed for their impact, and none had been subjected to randomised or quasi-experimental controlled trials. Many of these interventions were stand-alone pilots, and few have been replicated or been shown to be sustainable (Prost et al.). The authors found that some UK and European interventions were addressing the needs of African communities affected by HIV. However, they recommended that more resources need to be mobilised to ensure current and future interventions are targeted, sustainable, and rigorously evaluated. They found that service providers and funders were unable to judge the effectiveness of the interventions (Prost et al.).

The European HIV and Mobility Project (Uccella, 2010) reviewed published evaluations of HIV prevention models for mobile and migrant populations, although it was not restricted in its focus on resource rich countries. Programs reviewed were primarily individual, small group or network focused activities such as educational materials, counselling, and voluntary peer education, although some broader community events and outreach were included. The review did identify some evaluated programs, including some through control trial studies. However, none of these appeared to be based in western countries. While peer education models were found to be a promising intervention model to achieve increases in voluntary HIV testing and intention to use condoms (Uccella), the authors also found no standard approach to HIV prevention in migrant populations and ethnic minorities. Most randomised controlled studies to determine the efficacy of behavioural/social interventions were community-based projects, and prospective programs did not account for the impact of the interventions on migrant populations and ethnic minorities.

The most comprehensive study relevant to this review was conducted in Australia by McMahon (2010) who reviewed published and grey literature to investigate ‘How and why do targeted HIV interventions for immigrants in high-income countries work (or not), for whom do they work, and in what contexts?’ (McMahon). This study undertook a realist systematic review (Pawson, Greenhalgh, Harvey, & Walsh, 2005) of evidence in order to focus on mechanisms for achieving cultural appropriateness in HIV prevention interventions with immigrants that have been implemented in contexts similar to Australia. Consistent with most health promotion, McMahon found it was generally recognised that prevention interventions will be more effective if they are culturally appropriate to the population they serve and a range of strategies and activities are used to achieve this. Few studies, however, identified examination of what mechanisms—the
program theories, or the how and why of the intervention—contribute to culturally appropriate interventions.

McMahon’s review included group and community level interventions (McMahon, 2010). A total of 74 studies were included in the final analysis and synthesis, of which 34 were intervention studies. Most of the intervention studies were implemented in the US, with three in Israel and the Netherlands, and one each in Switzerland, Australia, Canada and New Zealand (McMahon). McMahon’s study suggests there were seven key mechanisms contributing to cultural appropriateness in HIV interventions grouped into three levels of importance. The first and most pivotal mechanisms were language and cultural values. Staffing and targeting using ethnicity and use of settings as adaptation mechanisms in these interventions were found to be the next level of importance. Immigrant community endorsement and partnering with immigrant community institutions was the third and least of the three. The review found evidence that these mechanisms were interrelated rather than mutually exclusive and recommended further research to examine the relationships between these seven mechanisms and the impact they have on the effectiveness of interventions and HIV-related health outcomes among immigrants (McMahon).

While there is little published recent evidence in Australia concerning effectiveness of individual, small group and community level programs in preventing the transmission and impact of HIV among migrant and culturally diverse communities (McMahon, 2010), a few program studies and community research studies are currently under way (Reeders, 2012).

2.3.3 Community level HIV prevention and health promotion

Coates et al. (2008) argued that the evidence of limited to moderate benefit of individual and small group focused behavioural strategies derives from the present dominance of cognitive and individualistic approaches that, ‘assume that people have the motivation and freedom to adopt protective actions’ (2008, p. 676). The authors argued that these theories fail to adequately address HIV as a social event influenced by many factors. Kippax and Stephenson (2012) also linked the seemingly low impact of behavioural interventions to the tendency to focus on individual behaviour change rather than on community change. This section and the following section will focus on the types of published evidence for programs operating at community and structural levels.

Interventions at the community level aim to shift or modify social norms, or perceptions of social norms, which may influence health behaviours in a particular environment or context. Community level interventions often employ theories such as diffusion of innovation, community organising or development, and use approaches such as social marketing, peer outreach and community mobilisation. Due to the types of interventions employed to target communities more time is generally required for implementation, and to observe the impact.

Most systematic reviews did not include community interventions, and those that did limited these to control trials of face-to-face peer outreach or popular opinion leader strategies (Anstee et al., 2011; Herbst et al., 2007). Face-to-face community interventions achieved significant reduction in the odds of having unprotected anal intercourse.
Only a few systematic reviews included what they identified as social marketing due to the limited number of experimental control trials of social marketing (Anstee et al., 2011; Downing et al., 2006; Noar, 2009). Although social marketing is defined as the use of all the tools of marketing and market engagement to create social change at the individual, social and structural level (Donovan, 2011), most systematic reviews limited their definition of social marketing to paid advertising campaigns. Despite the increasing adoption of social marketing campaigns in HIV prevention, there is comparatively limited evidence beyond good marketing practice regarding which specific factors and campaign characteristics may contribute most to campaign success and why this is the case (Johnson et al., 2008; Noar, 2008; Noar, Chabot, & Zimmerman, 2008). This is often due to the need for marketing campaigns to be developed with close attention to local context and culture, and adapted and reoriented during implementation, and so difficult to translate to different contexts. Therefore understanding the theory, development and implementation process is often more useful than a control trial of a specific intervention.

Noar et al (2009) undertook a systematic review of HIV mass communication campaigns produced in the years 1998–2007 that focused on sexual behaviour, HIV testing, or both. The review examined 38 articles that covered 34 different campaigns. The results indicated that compared with the earlier systematic reviews, campaigns had changed and improved over time in a variety of ways, particularly in: 1) targeting defined audiences through audience segmentation procedures; 2) designing campaigns around behaviour change (rather than solely knowledge or attitude change); 3) using behavioural theories to inform campaign design; 4) achieving higher message exposure to campaign messages; 5) using stronger quasi-experimental designs with control groups for outcome assessment; and 6) including measures of behaviour change in outcome assessments. They noted that these developments are important as they indicate an increasing commitment to key principles of effective campaign design and evaluation. However, they also observed that few campaigns utilise quasi-experimental designs for outcome evaluation. Of those campaigns that did use quasi-experimental designs with control groups, eight out of 10 demonstrated an impact on behaviour; for example, condom use or HIV testing (Noar et al). The authors raised concerns about the small number of campaigns included in their review that used theory-based message design. They concluded that campaigns where messages were based on both behavioural theories that specify content, and message design theories that specify how particular kind of messages can be designed to be convincing with a target audience will be the most persuasive and effective (Noar et al).

A Cochrane review of social marketing interventions to increase HIV/STI testing uptake among men who have sex with men and male-to-female transgender women included three serial, cross-sectional pre-test and post-test study designs (one with a control group and two without). The authors concluded that multi-media social marketing campaigns can significantly increase HIV testing uptake among men, but were not found to be effective in increasing STI test uptake. The authors noted that the finding is based on limited evidence and that overall the risk of bias was high and quality of evidence was low. They recommended that future evaluations of social marketing interventions for MSM employ longer-term impact evaluations (changes in HIV or STI incidence over time), alongside implementation research. One example of this is process evaluations that can identify specific elements of a social marketing intervention most effective in
reaching the target population and changing behaviours, which can then be utilised in the development of future interventions (Wei et al., 2011).

Economic analysis of social marketing campaigns has been increasing with recent studies. These show that while not achieving the same level of change as individual or small group interventions, when cost benefit analysis of effective media campaigns is compared to effective individual or small group interventions, the benefits appear much stronger (Hsu et al., 2013).

In Australia some evidence has been published on the effectiveness of recent HIV-related social marketing campaigns targeting gay men (for example, see Pedrana, Stroové, & Hellard, 2009) but much less in relation to campaigns targeting PLHIV (NAPWHA, 2013) and only one in relation to CALD communities (McMahon, Fairley, Donovan, Wan, & Quin, 2004). Much of the evaluation of social marketing campaigns in Australia resides in community organisation reports and other grey literature, discussed in Section 3.0.

Evidence about how to utilise opportunities in online social media contexts is being developed (CDC, 2011b; Gold et al., 2011; Pedrana, Gold et al., 2010; Rhodes et al., 2010). However, few studies or initiatives are reported in the scientific literature, and the setting is changing so rapidly that anything more than a few years old becomes obsolete. By its nature social media operates on user-driven content, making timelines and restrictions for many control studies challenging (Hallett, Brown, Maycock, & Langdon, 2007). Most recommendations for future studies relate to examining key implementation factors for success rather than a defined strategy or package.

In many systematic reviews, community development strategies were considered a structural intervention and therefore excluded, as the focus of the review was usually limited to individual focused strategies. In others, community development was evaluated as supplementary to and supportive of the majority of the review—being on individual or small group interventions and evaluated within that context (Lyles et al., 2006; Rotheram-Borus et al., 2009). No systematic reviews were found that evaluated community development and mobilisation as the primary intervention and individual and small group interventions as strategies to complement or enhance.

Overall, however, the systematic reviews found sufficient evidence to state that community level HIV prevention interventions, particularly those aimed at gay and men who have sex with men and using peer and network mobilisation approaches, can produce community level behavioural change (Downing et al., 2006; Herbst et al., 2007). However, due to the diverse range of strategies and contexts there were few consistent findings about detailed methods or adaptation to different contexts.

The difficulties with evaluating community development, mobilisation or social marketing strategies through control trials is that the interventions by their nature impact on, and were impacted by, their environment and social context on an iterative basis. Often their success can be attributed to how they interact or evolve with the variables that the control trial methodology aims to control (Donovan, 2011; Laga, Rugg, Peersman, & Ainsworth, 2012; Miller et al., 2012). While strategies at the community level need to continuously adapt and evolve as the social, environment and service context changes, the issue of quality and effectiveness in
processes such as engagement, participation, development, implementation and reorientation become more critical than the impact of a particular package based within a time and place.

The need to document, evaluate and share the process of adapting evidence-based community level programs to new contexts was identified as critical, but few examples were given. One published example was the Mpowerment program, a community- and peer-based program designed principally for white gay and bisexual men in the US. Mpowerment was subjected to a mixed method case study analysis of its adaptation to black gay and bisexual men. The case study highlighted how ‘the dynamic interaction of practice-based experiences, skills, relationships, local context, and practitioner judgments about the relevance and credibility of evidence for specific actions propel the reinvention of evidence-based program procedures’ (Miller et al., 2012). Consistent with a broader and earlier analysis by (Kalichman et al., 2010), the Mpowerment case study recommended that disseminating principles of effective practice, along with guidance, may achieve higher community acceptance and be of greater utility in adapting and evolving with a community than would be disseminating rigid procedures (Kalichman et al.; Miller et al., 2012).

2.3.4 Structural interventions

The factors that contribute to HIV transmission are not only linked to individual and community factors, but also include structural factors. The broader structural and social factors that can increase people’s vulnerability to HIV include education, employment, income and job security, health services, and access to services, housing, social exclusion, and stigma (Dean & Fenton, 2010). For example, marginalisation of at risk-populations and poverty are known to limit access to treatment and prevention resources, and shape the contexts in which HIV risk and prevention are produced (Rotheram-Borus, 2009). Results from the 2010 European MSM Internet Survey and the 2012 Global Men’s Health and Rights Study (GMHR) found that less homophobia, greater comfort with health service providers, and more community engagement were associated with greater access to condoms, lubricants, and HIV testing (Arreola, 2012; Berg, Weatherburn, & Schmidt, 2013).

Structural interventions draw on an understanding of social determinants of health, and the context in which risk and prevention practices are produced and reproduced, with the aim of leveraging the social and infrastructural drivers of HIV transmission and HIV prevention. Structural interventions typically involve: regulatory, funding and policy initiatives to enhance the availability, acceptability and accessibility of prevention (Gupta et al., 2008; Latkin, Weeks, Glasman, Galletly, & Albarracin, 2010; Rotheram-Borus, 2009); changing laws or policy to address human rights, social injustice and inequality; developing partnerships with sectors beyond health; and shifting harmful social norms and bringing about political change (Adimora & Auerbach, 2010; Ogden, Gupta, Warner, & Fisher, 2011; Phillips & Pirkle, 2011). National strategies, mobilising affected communities to ensure meaningful participation and sustainability of interventions, and building research and evaluation evidence are also identified as key structural initiatives that contribute to implementation of effective HIV prevention programs (Auerbach, Parkhurst, Caceres, & Keller, 2010; Porter et al., 2012)
However, the use of structural approaches in HIV prevention have been far less evaluated than other intervention levels (Anstee et al., 2011; Downing et al., 2006; Rotheram-Borus, 2009). Structural interventions operate at multiple levels; from addressing macro-environmental factors such as socio-economic status or policy and law, through to micro-environmental factors such as social norms and structure. Structural factors affecting HIV may be quite distal to the short-term or direct issues and factors HIV agencies may be trying to address through their programming (Gupta et al., 2008). This means evidence about their role and effectiveness is more difficult to build but can be a major contributor to the success or failure of a program.

Australia is one of a number of countries that has been regularly identified as an early example of the success of adopting a broad-based structural response to managing HIV among most affected communities, including community leadership and infrastructure, national and state level policy, encouragement and funding for active involvement of affected communities and establishment of specific national research centres ensuring robust research to inform the response (Coates et al., 2008; Gupta et al., 2008; Kippax & Stephenson, 2012; Moodie, Edwards, & Payne, 2003). In 2006, in response to rising HIV in some states, an examination of the epidemiological and behavioural data, policies, strategies and community responses was conducted in order to account for state-based differences. Differences in structural factors between the states in the way the HIV partnership functioned, types of prevention strategies supported, and the level of financial investment in prevention activities were found to be associated with the effectiveness of the ongoing response to HIV (Bernard, Kippax, & Baxter, 2008). However, the investigation was by its nature largely limited to the data and research available, rather than a strategic monitoring of the structural factors throughout the period examined.

Assessments of structural approaches to HIV prevention often lack rigour or only measure the structural variable on which they directly intervene; they do not report on outcomes related to HIV risk (Gupta et al., 2012). For example, programs to reduce HIV/AIDS stigma and discrimination demonstrate a reduction in HIV/AIDS-related stigma, but are generally not able to determine whether reducing stigma and discrimination reduces HIV risk or rate of infection (Gupta et al.). The issue of social stigma and other structural factors impacting on access to appropriate health care services has been identified in studies of the recently described ‘HIV treatment cascade’, which highlights that poor health service engagement by some communities or sub-groups within priority populations will substantially limit the effectiveness of test and treat or treatment as prevention strategies (Gardner, McLees, Steiner, del Rio, & Burman, 2011).

Some programs are well-researched and documented by strong empirical evidence, such as those that target immediate conditions of social life, including access to comprehensive sexual health education, syringe exchange programs, and health care (Adimora & Auerbach, 2010). However, there is less evidence for sociologically plausible but more distal interventions such as tackling stigma, incarceration rates, and poverty (Adimora & Auerbach).

A systematic review of literature to determine if populations that receive an HIV-related intervention achieved lower levels of HIV/AIDS stigma was conducted by Sengupta and colleagues (2011). Only 19 publications met the review criteria. The interventions reviewed used one or more of the following types of
strategies: 1) information-based approaches (e.g., written information in a brochure), 2) skills-building (e.g., hands-on learning strategies for resolving negative attitudes), 3) counselling approaches (e.g., PLHIV support groups and resources), and 4) contact/interaction with PLHIV (e.g., testimonials, interaction between PLHIV and the general public). There was no indication if any of the interventions included community or peer mobilisation strategies, mass media, or structural interventions. Of the 14 that showed effectiveness, only two were considered by the reviewers to have good methodological rigour (Sengupta et al.). Due to the disparate types of contexts, processes and measurement techniques across the intervention studies, the reviewers’ recommendation for implementation of future programs was limited to ‘the combination of developing interventions that focus on stigma reduction, and using more than one strategy to deliver the interventions, may have greater impact to enhance participants’ understanding about the effect of HIV/AIDS stigma in HIV-infected and/or at-risk populations’ (Sengupta et al.). The authors highlighted that that they ‘would like to see whether a reduction in HIV/AIDS stigma was associated with improved change in health outcomes, such as increased HIV testing, increased access to or utilization of HIV treatment/care, improved policy support for PLWHA, improved mental health outcomes and social support, and/or reduced HIV-related symptoms’ (Sengupta et al.).

Most systematic reviews of multiple level interventions have highlighted the lack of published research eligible for a systematic review in regard to the role and impact of structural level interventions (Anstee et al., 2011; Herbst et al., 2007; Kang et al., 2010; Phillips & Pirkle, 2011; Robinson, 2011; Rotheram-Borus, 2009; Sengupta et al., 2011). Knowing what structural interventions are required in order for a mix of individual-, group- and community-focused interventions to succeed is essential, but is controlled for or excluded from most control trial methodologies. Gupta et al. (2008) argued that complex structural interventions are not suited to RCTs and that instead other social science approaches able to explore processes, and measure and understand change should be utilised. They also identified the need for ethnographic methods that can assess which features of the social context influenced the outcome of the intervention and why (Gupta et al.). While raising similar challenges, Hallett argued that the investment in studies utilising an adapted and pooled range of methodologies such as community randomised control trials (where possible and applicable), with high-quality sentinel surveillance, behavioural and modelling studies, can support improving the evidence base for scaled-up community and structural level interventions (Hallett, White, & Garnett, 2007).

The Journal of the International AIDS Society recently published a special edition of structural drivers and structural strategies (Seeley et al., 2012), calling for meaningful responses to the social, political, economic and environmental factors that affect HIV risk and vulnerability. However, it was argued that although the influence of different structural barriers was becoming increasingly well-understood, investment in the development and evaluation of innovative interventions has been insufficient (Seeley et al.).

2.3.5 Health promotion systems strengthening and quality improvement in combination prevention

In 1999 the development of Australian infrastructure benchmarks for the design, implementation and evaluation of HIV health promotion programs for gay and homosexual active men was undertaken with the
participation of community, government and research sectors (Malcolm, McCallum, McDonald & Wise, 1999). This was later updated and expanded to include all STI and blood-borne virus (BBV) contexts (IGCHARD, 2007). These benchmarks highlight the importance of key structural areas including leadership and management, community participation and partnership, research, information management, planning and evaluation, learning and workforce development, health promotion practice. However, this was developed under previous national strategies and is not referred to within current Australian strategies.

In a recent review article published in the *Lancet* as part of a special issue about HIV in men who have sex with men, Sullivan et al. (2012) concluded that ‘governmental, academic, and community strategies have been insufficient to curb the HIV epidemic in men who have sex with men (MSM)’ (Sullivan et al. p. 388; p397). In doing so, the authors do not dismiss behavioural and structural interventions, but instead recommend that the approach to HIV prevention needs to involve coordination of behavioural, biomedical and structural interventions, reinforcing a growing consensus in the field of HIV that effective HIV prevention requires a strategic combination of behavioural, community, biomedical, and structural intervention strategies (Horton & Das, 2008; Merson, O’Malley, Serwadda, & Apisuk, 2008; Padian, 2011; Rotheram-Borus, 2009).

A set of health promotion programs (such as in HIV prevention) can be thought of as a complex interconnected system or highly entangled collection of systems; can involve formal and informal social systems such as the health system or a community; and can be complex, dynamic, fluid and/or resistant to change (Behrens et al., 2007; Hawe, Shiell, & Riley, 2009; Shiell, Hawe, & Gold, 2008). Efforts to maximise the impact of combination HIV prevention have much to gain from a systems perspective, as how one conceptualises or views a system can have an impact on how one understands the causal links and carries out an evaluation (Behrens et al., 2007; Dyehouse, Bennett, Harbor, Childress, & Dark, 2009; Kelly et al., 2010; Rotheram-Borus, 2009).

The World Health Organization’s report on systems thinking and systems strengthening (De Savigny & Adam, 2009, p. 19) argued that:

> Many health systems simply lack the capacity to measure or understand their own weaknesses and constraints, which effectively leaves policy-makers without scientifically sound ideas of what they can and should actually strengthen. Within such unmapped and misunderstood systems, interventions – even the very simplest – often fail to achieve their goals. This is not necessarily due to any inherent flaw in the intervention itself but rather to the often unpredictable behaviour of the system around it. Every intervention, from the simplest to the most complex, has an effect on the overall system, and the overall system has an effect on every intervention.

However, little has been published on evaluation of the quality and impact of HIV prevention interventions within a broader system of interventions and actions at multiple levels (Anstee et al., 2011; Rotheram-Borus et al., 2009). For example, a review by Rotheram-Borus et al. found that at a very broad level, common recommendations for what effective behavioural programs should do included: (a) establishing a framework to understand behaviour change; (b) conveying issue-specific and population-specific information needed for healthy actions; (c) building cognitive, affective, and behavioural self-management skills; (d) addressing
environmental barriers to implementing new behaviours; and (e) providing tools to develop ongoing social and community support for adherence and maintenance of healthy practices (Rotheram-Borus et al.). However, the review was not able to articulate the relationships between these components, or the quality and impact indicators for the parts and the whole.

Padian (2011) argued that future challenges in HIV prevention will be in operationalisation, implementation, and assessment of combination prevention programs, including adaptation of multifaceted prevention programs where successes can depend on subtle factors of context or program delivery, and the need to tailor the combination to local epidemiology (Padian). However, as highlighted in previous sections, what has been published on development of evaluation approaches that build an implementation evidence base that are also sustainable and relevant within the context of day-to-day work and resources of community-based organisations is limited (Anstee et al., 2011).

Experiences in a number of countries of disseminating evidence-based intervention ‘packages’ for community-based HIV prevention have consistently been hampered by challenges in how to adapt the programs to ensure effectiveness in different epidemiological contexts, within different social and service systems, or in changing contexts (such as the move to treatment as prevention). One of the more openly documented examples has been the experience and learning over the past 10 years from the Diffusion of Effective Behavioural Interventions (DEBI) and related programs at the Division of HIV/AIDS Prevention at the Centre for Disease Control (CDC) in the US (Collins, Harshbarger, Sawyer, & Hamdallah, 2006; Division of HIV/AIDS Prevention, 2011; Higa et al., 2013; Hook & Milan, 2009).

Systematic reviews (Anstee et al., 2011; Herbst et al., 2007; Rotheram-Borus, 2009) and the CDC expert peer review of the program as a whole (Hook & Milan, 2009) were consistent in recommending a move away from its focus on internal fidelity to replication of an RCT-based intervention and an increased emphasis on identifying core quality processes, underlying mechanisms or theory of the interventions, synergies with other local programs (such as clinical services, community development, and structural changes), and effective monitoring and evaluation to support programs to continuously reorient in a timely and effectively manner. Other examples of the recent reorientation and restructuring of programs to enhance quality improvement and monitoring, evaluation, learning and sharing processes in order to respond to a rapidly changing HIV prevention landscape can be found in the UK (HIV Prevention England, 2012), Germany (Corsten & von Rueden, 2013; IQhiv, 2011) and Australia (NSW Government, 2012).

While most reviews and commentaries discussed in the above sections have called for a broader approach to research and evaluation that recognises the complexity of on-the-ground HIV prevention (and its interconnections of social determinants of health, cultural dynamics, politics, institutions, biomedical developments, and changing contexts) and the importance of interconnections and complex causal chains (consistent with systems thinking), there has been little work published in regard to HIV.

In 2012 the Centre for AIDS Prevention studies held a National Roundtable on Evaluation of Multilevel/Combination HIV Prevention Interventions. While recognising the strength of the design of community randomised controlled trials (cRCTs) that combine community-based interventions with biomedical and behavioural approaches, the roundtable found they were logistically challenging, time-
consuming, and very expensive (Charlebois et al., 2012). Also, proceedings of the roundtable identified that
communities affected by HIV often cannot wait for a randomised trial to be conducted in their communities;
this has resulted in community-inspired combination prevention strategies being implemented with limited
empirical backing. Charlebois et al. argued that much can be learnt through observational studies or partially
controlled study designs and they have potential to evaluate programs and measure the magnitude of their
effects and synergies in their natural environments. Thus, we see a need to explore novel study designs to
move our community level evaluation methods forward (Charlebois et al.).

The challenges and complexities being faced in combination HIV prevention are not dissimilar to other areas
of public health, and there are increasing levels of published literature looking at how to improve monitoring,
evaluation and learning in public health by drawing on developments in continuous quality improvement
(Rotheram-Borus, 2009; Woodhouse et al., 2013), contemporary approaches to program logic and theory-
based evaluation (Brousselle & Champagne, 2011), realist evaluation (Kazi, 2011; Pawson & Sridharan, 2009),
mathematical modelling (Laga et al., 2012; Wilson, Hoare, Regan, & Law, 2009) and systems thinking (Gilson,

There has been growing interest in the application and usefulness of systems thinking to the field of
evaluation within and across social change and health promotion programs, including moving the discussion
from conceptual debates to practical, on-the-ground, implementation (for examples see Australian
Government, 2007; BeLue, Carmack, Myers, Weinreb-Welch, & Lengerich, 2012; Dyehouse et al., 2009;
Hirsch, Levine, & Miller, 2007; Leischow et al., 2008; Mabry, Marcus, Clark, Leischow, & Méndez, 2010;
Renger et al., 2011; Shiell et al., 2008; Signal et al., 2013; Victorian Department of Health, 2011). This may
include the application of tools such as mathematical modelling, network analysis and system mapping to
support identification of intervention aims, targets, mechanisms and key leverage opportunities (Luke &
Harris, 2007; Shiell et al., 2008; Smith, Grierson, von Doussa, Pitts, & Clement, 2009; Wilson et al., 2009)

2.4 SUMMARY OF WHERE PUBLISHED HIV PREVENTION AND HEALTH PROMOTION EVIDENCE IS MOST,
MODERATELY AND LEAST DEVELOPED

This section provides a brief summary of the levels of evidence development leading to a summary table
(Table 1).

2.4.1 Where is there most development in the published evidence regarding HIV prevention and health promotion interventions?

Interventions aimed at individuals and small groups may have limited sustained impact in many contexts, but
they are an area of HIV prevention for which a significant amount of research data exists, from contexts
and environments with similarities to Australia (such as North America and Europe) and in particular where
RCT evidence is available. Numerous systematic reviews focused on HIV behavioural interventions targeting
individual and small groups, and in particular of gay men and PLHIV, have shown effectiveness in reducing
risk practices and maintaining safe sex practices. At a broad level, interventions that were framed around
recognised behavioural theories were more likely to have shown effectiveness in achieving their aims, at
least in the short term. However, the largest gap in this published evidence relates to why and how the interventions work and identification of core theoretical mechanisms, quality indicators and leverage points that underpin and differentiate between effective and ineffective adaptations of programs. This is particularly so among peer-based programs conducted in community settings, and there are even fewer published studies with priority CALD communities such as those in Australia. Most of the published research in this area was undertaken prior to the mobilisation of treatment as prevention, and this new context means added complexity of sexual behaviours, practices and relationship.

Another area of strength in evidence for Australia is behavioural and epidemiological data. While not specifically part of the process of evaluating individual HIV prevention interventions, behavioural and epidemiological data does play an important role in identifying the targets and priorities of HIV prevention as well as providing outcome measures for the collective action of health promotion at a system level. Coates et al. (2008) noted that Australia, unlike many other countries, has had access to yearly behavioural and epidemiological data that has been fed back to the community, health departments and HIV community-based organisations to assist in the planning of HIV programming and assess its influence over time (Coates et al.). As such it offers a case study from which other HIV prevention programs can draw.

2.4.2 Where is there modest development in the published evidence regarding HIV prevention and health promotion interventions?

The evidence of the potential impact of social marketing and community development in HIV prevention is moderately developed for most communities and contexts. However, while the evidence of impact for individual and small group interventions is well-developed, the evidence in regard to underlying theories and quality practice is moderately developed for some communities and contexts, and less so for others. While the biomedical and clinical evidence that underpins treatment as prevention is well-developed, evidence is less developed on how these strategies may work at a sustained level in different contexts and among different populations outside trial conditions.

2.4.3 Where is there least development in the published evidence regarding HIV prevention and health promotion interventions?

While recognised in most of the literature as critical to effective combination prevention, interventions that operate at or target the structural level have developed least in terms of evaluation and quality and impact indicators.

As argued by Auerbach, Parkhurst, Caceres, & Kelleher (2009). ‘structural change is fundamentally social change, yet social change involves a wide range of shifts and alterations, while HIV prevention has one very specific biological outcome of interest—reduced HIV incidence’, (p. 9). This leads to tension between the broader reasons to achieve structural change such as social justice, and the use of HIV incidence as the sole criteria for evaluating programs. This is exacerbated when attempting to integrate social level interventions into a health-science paradigm of cause-and-effect relations operating at the level of the individual (Auerbach et al.).
Another gap in the literature is the need to move the emphasis towards understanding why an intervention works, not just if it works. This means understanding the mechanisms and common factors that can then be adapted, monitored and built on through effective monitoring, evaluation and learning. This would support the development of quality improvement indicators and approaches that support the continuous adaptation and reorientation of strategies, rather than approaches that assume interventions are static in their implementation and fidelity.

The third gap is at the system or combined prevention level. Health promotion can be thought of as a complex system of interventions working across all levels: individual, group, community and structural. Very little of the published evaluation in HIV, however, is focused on evaluation of the synergies within this system; a central tenet of combination HIV prevention. There is little development of quality indicators for how strategies in combination should be developed, adapted, implemented, and evaluated. Focusing on common factors and recognising similarities and linkages across intervention approaches can make it easier for programs to be adopted by providers and will allow new interventions to be developed faster.

The HIV response in Australia has always worked with varying levels of evidence in making policy and program decisions. Table 2.1 is a conceptual summary of development of evidence in order to support these decisions. Characterisation of the levels of evidence outlined in Table 2.1 is based on estimates of development of the evidence prior to mobilisation of treatment as prevention, and the levels are relative to each other so the meaning of the three simplistic categories of most, moderate and least level should not be over-emphasised.
<table>
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<th>TABLE 2.1: ESTIMATES OF LEVEL OF DEVELOPMENT OF PUBLISHED EVIDENCE ACROSS HIV PREVENTION AND HEALTH PROMOTION LEVELS</th>
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<td>Biomedical Prevention</td>
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2.5 WHAT BREADTH AND FORMS OF EVIDENCE ARE NEEDED IN FUTURE?

As referred to earlier, complex public health challenges such as HIV can be termed ‘wicked problems’, in that they are continually evolving, have many causal levels and involve changing the behaviour of groups or populations with no single solution (Rittel & Webber, 1973; Australian Government, 2007). These policy areas require innovative, comprehensive solutions working across both internal and external organisational boundaries, involving communities and stakeholders in policy-making and implementation, and need to be modified in light of experience and on-the-ground feedback. All of the above pose challenges to commonly used hierarchies of evidence, reductionist and linear-based policy analysis methods and program implementation, and highlight the need for real-time monitoring, evaluation and learning to feed into decisions (Australian Government; Signal et al., 2013).

Combination prevention only increases the complexity and challenges in researching and evaluating HIV prevention and health promotion. The literature in public health, as well as in HIV prevention specifically, contains considerable advocacy about the need to broaden the range of approaches, frameworks and tools in building a sustained evidence base to support the development and implementation of social and health promotion interventions (Auerbach et al., 2010; Brown et al., 2012; T. B. Hallett et al., 2007; Higa et al., 2013; Kelly et al., 2010; McMahon, 2010; Peake, 2011; Phillips & Pirkle, 2011; Rotheram-Borus, 2009; Schwartländer et al., 2011; Sridharan & Nakaima, 2011; Traube, Holloway, & Smith, 2011; UNAIDS, 2010, 2011).

However, evidence by itself will not achieve policy reorientation or reform (Flitcroft, Gillespie, Salkeld, Carter, & Trevena, 2011) and a lack of published work does not mean a lack of evidence. To increase the evidence base for implementation of combined HIV prevention approaches, an increased sharing of the outcomes of programs on the ground is needed. However, as with much health promotion, a large proportion of the work in the area is not evaluated in a way that adds to the evidence base, or it is not shared outside the implementing organisation (Section 3.0 discusses this further). This results in large amounts of missing data of both effective and ineffective current strategies.

Drawing across the systematic reviews and commentaries reviewed, recommendations to reduce the prevention evidence gaps are:

1. Research: Intervention research trials that use a broad range of rigorous designs applied appropriately to interventions at different levels of health promotion as well as at the combined or system level, and investigate what works as well as why it works and in what context.

2. Practice: Stronger implementation research with a focus on program theory, quality practice indicators, and development of sustainable evaluation and quality improvement approaches that recognise the need to continuously adapt and reorient programs.

These gaps are dealt with in more detail below. Without these reorientations in research and practice, the building of evidence to guide combination prevention will be unable to move beyond a focus on the impact of parallel or siloed strategies, when the focus needs to be towards guiding the right mix of integrated strategies, tailored to the context, and recognising that this mix will change over time.
Intervention research trials that use a broad range of rigorous designs applied appropriately to interventions at different levels of health promotion as well as at the combined or system level, and investigate what works: why it works and in what context

The problems of applying a narrow hierarchy of evidence approach to an evidence base that is social and psychological as well as biomedical has been well-identified, particularly in relation to the breadth of the evidence base, varying applicability of different methodologies, analytic levels of explanation, nonlinear interrelationships between interventions, and the length of the causal chain between interventions and outcomes in public health (Auerbach, 2008; Kelly et al., 2010; Kipps et al., 2011; Tang et al., 2008). Coates et al. (2008) questioned the reliance on randomised controlled design to assess and validate HIV interventions as this tends to determine the type of interventions that are studied, ‘rather than considering which types are needed for epidemic effect and matching design to the research question’ (p. 676).

The role of experimental and quasi-experimental control designs have an important place in the building of intervention evidence:

‘RCTs are very good at ensuring internal validity and establishing efficacy, but limited when it comes to external validity and establishing effectiveness. They are also very good at assessing whether something works, but not why it works. As such, experimental evaluations may be necessary to ascertain pre-defined kinds of impact, but they cannot be relied on alone to address social drivers or to evaluate interventions seeking to bring about social change.’ (Auerbach et al., 2010)

There have been developments in adapting randomised and quasi-experimental methodologies to meet some of the requirements of integrated multi-level HIV prevention and health promotion, such as community level randomisation (Ye et al., 2012), although these have challenges in regard to scale and expense implications. In other work, Bonell, Fletcher, Morton, Lorenc, & Moore (2012) proposed drawing on the strengths of randomised trials at the group or community level and the strengths of realist evaluation of understanding ‘what works, for whom and under what circumstances’ and the importance of theorising and empirically examining underlying mechanisms. Bonell et al. proposed that in ‘complex’ interventions, fidelity relates more to key intervention ‘processes’ and ‘functions’ than do an explicit list of actions. Bonell et al. suggested that such ‘realist trials’ would additionally determine the validity of program theory rather than only examining ‘what works’ to better inform policy and practice in the long-term.

The US roundtable on evaluation of structural interventions (Charlebois et al., 2012) also highlighted the current and potential role of other methodologies that may be more relevant for community and structural level interventions, as well as combination prevention across levels, such as time-series models, causal inference approaches, mathematical modelling, mixed method evaluations, economic analysis, and other social and policy science methods. There have also been significant developments in alternative grading of multiple evidence types for systematic reviews where the grading is not based on the methodology but on the knowledge it creates that is relevant to the strategy or intervention (Kelly et al., 2010; Tang et al., 2008).

Across these developments is an understanding that taking a ‘one size fits all’ hierarchy approach provides a barrier to rigorous and relevant research at all levels of HIV prevention and health promotion interventions.
As argued by Laga et al. (2012), ‘we cannot afford to dismiss potentially effective prevention programs simply because they can’t easily be randomised or because they are too complex to evaluate.’

**Stronger implementation research with a focus on program theory, quality practice indicators, and development of sustainable evaluation and quality improvement approaches that recognise the need to continuously adapt and reorient programs**

Chang et al. (2013) proposed that to achieve the promise of combination prevention, there needs to be more explicit consideration of combination implementation—referring to ‘the pragmatic, localised application of evidence-based strategies to enable high sustained uptake and quality of interventions for prevention of HIV’. While advocating a similar point, Norton et al. (2009) used the term ‘delivery science’, arguing it needs to be valued in the same way as ‘discovery science’. In their qualitative systematic review of HIV prevention interventions specifically designed for MSM Higa et al. (2013) found that while identification of evidence-based interventions was informative, several more steps were required to translate program knowledge into practice.

They found that an efficacy criterion focused only on internal validity was not helpful in determining other criteria such as scalability, sustainability, and cost-effectiveness to determine in the real world which interventions and combinations of interventions were likely to achieve high-impact outcomes. Higa et al. (2013) recommended more implementation research about how interventions work in the field and how to maximise their reach and impact. This was seen as important for facilitating the translation of research into best practices (Higa et al.).

Rotheram-Borus (2009) also advocated the need to generate evidence from existing programs. They also noted that differences across HIV prevention programs do typically share some common factors that support efficacy and these could be used to guide programs across a range of different contexts. They recommend the use of a continuous quality improvement paradigm rather than a replication and fidelity model, noting that the evidence for identifying common factors is currently weak as design models typically do not include local adaptation. These points were consistent with other reviews (Higa et al., 2013; Horton & Das, 2008; McMahon & Ward, 2012; Nababan et al., 2011; Sengupta et al., 2011; Simoni et al., 2011).

As in other areas of public health, there is increasing amount of literature looking at how to improve evaluation in public health by drawing on developments in areas such as continuous quality improvement (Rotheram-Borus, 2009; Woodhouse et al., 2013), contemporary approaches to program logic and theory-based evaluation (Brousselle & Champagne, 2011), realist evaluation (Kazi, 2011; Pawson & Sridharan, 2009), modelling (Alsallaq et al., 2013; Laga et al., 2012; Wilson et al., 2009), and systems thinking (Renger et al., 2011; Shiell, 2011).

Bertozzi et al. (2008) observed that one of the challenges confronting HIV prevention programming is the ‘chasm that exists between the academic world, in which optimisation is normally based on controlled trails that report results with 95% certainty, and the real world, where uncertainty reigns’. They argued that identifying and implementing effective prevention programs does not necessarily require new data, but can
be based on ways to access and learn from the successes and failures of current and developing HIV interventions (Bertozi et al.).

Without strengthening and sharing the evaluation of interventions conducted outside research trial contexts the majority of the real time/real world evidence is lost and results in policy and strategy based on incomplete evidence. Chang et al. (2013) highlighted that identifying the synergistic or antagonistic effects of combining the different parts of combination prevention, and learning from the benefits and unintended consequences of combination approaches, will mean close monitoring of current programs. ‘The ability to make ongoing, data-driven programmatic course corrections might not just be an advantage of combination HIV prevention efforts, but also a necessity’ (Chang et al.).
3.0 Monitoring, evaluation and learning in HIV community organisations

3.1 INTRODUCTION

Section 2.0 reviewed where the published evidence about HIV prevention and health promotion was most, moderately and least developed. In doing so, one of the key recommendations was to increase the contribution from current program evaluation through implementation research, quality practice indicators, and development of sustainable monitoring, evaluation and learning approaches.

The current National HIV Strategy highlights as a priority action for HIV prevention (Australian Government, 2010) the need to ‘invest in evaluation and evidence-building approaches to support evidence-based and innovative policy and program decisions’ (p. 28). The HIV community sector recommendations to achieve the UN Declaration targets on HIV also highlight that program evaluation is vital and should inform ongoing program development, while taking into account changes in the Australian HIV epidemic (AFAO, 2012a). These recommendations went on to highlight a number of areas in which monitoring and evaluation could be improved, particularly in terms of community-based implementation research.

To provide focus in identifying areas for strengthening the monitoring, evaluation and learning conducted in HIV community organisations, this section will provide an overview of current and developing approaches used in the community HIV prevention sector. It will identify areas where these evidence-building approaches are most, moderately and least developed. This has been informed by a rapid review of current practices used in community organisations within Australia (building on previous work undertaken by AFAO in 2008), followed by a rapid review of evaluation practice in international contexts similar to Australia. This section ends with a summary of the findings and identifies key gaps in building the evidence base to guide future work in combination prevention.

3.2 MONITORING, EVALUATION AND LEARNING IN COMMUNITY-BASED HIV PREVENTION IN AUSTRALIA

National evaluation audit

In 2008 AFAO undertook an audit of evaluation methodologies employed by health promotion programs conducted by AFAO and National Association of People with HIV Australia (NAPWHA). The aims of the audit and analysis were to document current practice in evaluation of health promotion programs, analyse current practice to identify strengths and weaknesses and highlight good practice examples, and to identify areas for consideration in improving evaluation practice (Wilkins & Booker, 2009). Fifty-nine evaluation reports were collated, reviewed and thematically analysed. They covered a broad range of projects including social
marketing campaigns, peer-based education workshops and web-based resources. Eleven themes were identified, including examples of good practice and areas for capacity development within the sector. These involved context and scope, types of evaluation, frameworks, use of program logic and links to evidence. Some of the key recommendations included:

- Greater emphasis on the use of program logic in planning interventions and their evaluations
- Evaluation reports should include an overarching evaluation framework
- A variety of data collection methods should be encouraged, particularly those that involve community participation or engagement
- Supporting reflective analysis within evaluation reports (Wilkins & Booker, 2009).

Proposed as a two-phase project, the evaluation audit and analysis was intended to inform the development of evaluation training for AFAO and NAPWA member organisations. The Evaluation Training and Mentoring Project was implemented from February to June 2011; it is described in more detail in section 4.3. The project was further complemented by broad health promotion workshops provided the WA Centre for Health Promotion Research.

**Review of monitoring and evaluation practice and developments since 2008**

**Method for review of Australian practice**

To identify what shifts in practice have occurred in the sector since 2008, it was decided to review the abstracts of key conferences attended by HIV educators in Australia and supplement this with other targeted reviews rather than subject the sector to another audit so soon after the AFAO audit.

This approach included these key data sources.

Review of abstracts of the following national conferences:


Review of reports from the following selection of state-based forums:

- SiREN Forum (WA) in 2010 and 2012.

Targeted reviews of the following:

- Recent evaluation reports of key national campaigns and programs conducted by AFAO (Spina, 2008b, 2010a, 2010c, 2012b, 2012c)
- Draft AFAO report ‘Mapping: HIV Health Promotion Programs with African Communities’ (AFAO, 2012 – Draft)
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- Other online evaluation reports from AIDS councils and other community organisations where accessible online (with focus on AIDS councils, PLHIV organisations and relevant multicultural health organisations).
- Diversity Health Clearing House (http://203.32.142.106/clearinghouse/default.htm) for programs with CALD communities
- Identification of other key developments through professional networks in the HIV community and applied research sector.

The focus of the review was on monitoring and evaluation approaches that were implemented within the resources of community-based organisations with a focus on programs targeting gay men, PLHIV and priority CALD communities. Search terms included key words such as ‘evaluation’, ‘monitoring’, ‘health promotion’, and ‘HIV prevention’. Pilot interventions with enhanced evaluation being trialled in partnership with research centres were included, but large-scale separately funded research studies were excluded due to their focus on controlled trials of different interventions and reduced relevance to sustainable monitoring and evaluation in community organisations.

**Method for review of international practice and developments**

To supplement the review of MEL practice and developments in Australian (above) and provide an international comparison point, a review of similar international literature was conducted.

The purpose was to provide a thematic overview of the range of evaluation methods that have been utilised in day-to-day community organisation practice to assess the effectiveness of HIV prevention programs across different levels. It was effectively an audit of the current evaluation practice ‘tool box’ with an emphasis on recent published literature.

This was not a formal systematic review across all literature but a general audit of key published papers already identified, and then supplemented by a search of relevant international conferences and reports from allied organisations with a focus on programs in similar contexts to Australia, primarily from Europe and North America.

The conference abstracts included in the search included:

- International AIDS Conference: 2010 and 2012 – in particular the poster presentations – where most non research trial evaluation work by community-based organisations was presented
- FEMP: The future of European prevention among men who have sex with men, Stockholm 2011 (Swedish Institute for Communicable Disease Control, 2011)
- Quality in HIV Prevention in the European Region, 2012 (IQhiv, 2012)
- Building Quality and Evidence in HIV Prevention, Washington 2012 (Brown et al., 2012)
- Responses to HIV and migration in western industrialised countries: current challenges, promising practices, future directions, Washington 2012 (European Centre for Disease Prevention and Control, 2012)
The same search inclusions and exclusions described in section 3.2 were also used in this search (i.e., large-scale separately funded research studies were excluded due to reduced relevance to sustainable monitoring and evaluation in community organisations).

It should be noted that the analysis undertaken was brief and with a focus on post-2008 documents that were available to this project. While not a complete audit of all work undertaken, over 400 documents were utilised in the review and provided a reasonable overview of most key developments in monitoring and evaluation since 2008. This approach meant the ESAPP project reduced the intrusion on community sector organisations.

3.3 RESULTS

Individual and small group interventions

Formative and project redevelopment research incorporating community consultation has been a strength of peer-based services and group workshops in Australia. Among programs for gay men this continues with increased formative work in areas such as sexually adventurous gay men, young gay men, and gay men from some CALD communities. Reviews of peer support programs for PLHIV, including reviews of models and structures in light of new treatment contexts and reorientation of programs, has also been demonstrated (Brown, 2010; Brown & Johnston, 2013; Santana, 2011).

There have been a number of examples of impact evaluation practice being strengthened at individual and small group level interventions with an increasing use of pre- and post-workshop evaluations in addition to formative evaluation via focus groups (for examples see Bavinton, 2010a; Feeney, 2011; Niggl, 2011, 2012; Perri, 2010; Triffitt, 2010; Triffitt, 2012). There was also evidence of significant revision and strengthening of the evaluation approaches for workshop programs in some agencies (e.g., the redevelopment of evaluation of Acon peer education workshops – Bavinton, 2010b).

Recent evaluations of HIV testing services targeting gay men within outreach or community services have primarily been based on review of service delivery data and complemented by qualitative interviews with clients, or comparing service delivery data to other service models (e.g., the M-Clinic in WA, see WA AIDS Council, 2012). Currently, a range of trials and initiatives for rapid HIV testing services targeting gay men are being conducted by or in partnership with the community sector in Australia, including point of care rapid testing for gay men with sexual health clinics and community-based services in Sydney and Melbourne. These initiatives have drawn on the experience of targeted use of rapid testing in other similar epidemics such as North America and Europe. However, few international examples have evaluated the combined role of clinical and peer-based components within the services or the linkages with other initiatives and campaigns.

A report on mapping of HIV health promotion programs with African communities by the Australian Federation of AIDS Organisations (AFAO, 2012 – Draft) indicated differing levels of evaluation resources and capacity across the many initiatives. Generally, many programs were still in development and most monitoring and evaluation was focused on formative and participatory models, process monitoring, and pre-
/post-survey for workshop evaluation and stakeholder and participant qualitative feedback for broader program impact. However, there were some initiatives, generally more mature or longer-term programs, which had undergone more involved evaluation approaches, including the use of external evaluators at key points during their development and implementation. Small group workshops with CALD communities have generally emphasised community leader and/or peer-led approaches with high levels of volunteer and community participation in development and implementation. Evaluation of impact has focused on adaptation of pre- and post-workshop data collection through surveys or interviews (primarily focused on changes in knowledge about HIV, STIs and health services) or observational approaches. Some evaluations included changes in attitudes to PLHIV, although few indicated evaluation of changes in attitudes regarding at-risk communities or sexuality and gender diversity or other stigma-related issues, although some initiatives did include these aspects within workshop content and discussions (AFAO, 2012 – Draft; Drummond, Mizan, Brocx, & Wright, 2007; Reeders, 2012). In many circumstances, evaluation initiatives were pilot projects and there was little capacity for longer-term follow-up or monitoring of linkages or pathways with other health services, or contributions to broader community action.

The international literature documenting international practice, as with Australian practice, indicated that most programs reported some level of post-intervention feedback survey. Many used pre- and post-test evaluation, some with three- or six-month follow-up. Some programs utilised periodic follow-up interviews or focus groups to provide feedback for review or refinement of programs. While many identified social models or peer-based approaches, the majority of the evaluation reported at the conferences focused on changes in individual knowledge and attitudes, and changes in self-reported sexual, testing or treatment compliance behaviour. As with Australian practice, few reported evaluation of developing peer influence indicators, increasing access issues, or other self-efficacy or peer group efficacy indicators. It most cases the broader peer and role model indicators were only raised in qualitative methods such as focus groups or interviews. Individual focused interventions, particularly those conducted in clinical or health settings, tended to include more comprehensive monitoring and evaluation than community-based group small programs.

Community level programs

Community level interventions use approaches such as social marketing, peer outreach and community engagement, mobilisation and development. A broad range of interventions are employed to target communities and generally more time is required for implementation and to observe the impact.

At a formative and development level, the Australian community sector continues to use a range of innovative and interactive approaches in addition to community surveys and focus groups. Recent examples include interactive workshops looking at HIV testing environments conducted by AFAO (AFAO & Redrollers, 2012).

Social marketing evaluations that go beyond formative and process evaluation have generally been conducted with the availability of additional funds and through strong partnerships with key research centres and independent evaluators well-versed in HIV interventions (for examples see Burnet Institute, 2010; Pedrana, 2012; Spina, 2010c, 2012c). The use of post-campaign online surveys complemented by focus
groups has been the most common approach to gauge reach of social marketing, and, to some extent, impact of knowledge or intentions (NAPWA, 2013; Spina, 2012b). There have also been some direct recruitment methods used within HIV and sexual health programs such as surveys conducted at community events, bars, nightclubs or airports depending on the focus of the campaign (Crawford, Brown, Nicholson, & Langdon, 2008).

In some cases investment has been made in sustained monitoring and evaluation of social marketing over time, creating a quasi-pre-/post-cohort approach. An example is the model in Victoria of a sustained cohort established for the evaluation of social marketing and some online initiatives (Pedrana, 2012; Pedrana, Stoovè, et al., 2010). The contracted evaluation undertaken by the Burnet Institute assessed knowledge, health-seeking and risk behaviours, campaign recognition and community dialogue by surveying an online cohort of MSM up to three times a year and HIV testing rates in four clinics with a high caseload of MSM. This was complemented by in-depth focus groups about the campaigns. This model has become a sustained approach on which some other programs at the Victorian AIDS Council have been able to draw, such as recent formative work for the establishment of a community-based rapid HIV testing program.

Community outreach, engagement and development are generally conducted as part of a broader peer-based program and challenging to evaluate in isolation from other strategies. Most monitoring and evaluation is formative and process-focused and supplemented by some qualitative feedback from participants, stakeholders and/or peer volunteers. Participatory action research has also been a popular development and evaluation method among a number of these programs; for example, the peer education and community development project based at Multicultural Health and Support Service in Victoria (Malunga, 2012). There have been some recent developments in monitoring the impact of recruiting and training volunteers on broader community engagement and development aims among gay communities and CALD communities (for examples see Brown & Johnston, 2013; Malunga; Teh, 2012) but no results about the effectiveness or sustainability of these approaches were located.

The continued use of online engagement, user-driven content and social media within social marketing and community development programs has generated a broad range of new approaches since the AFAO audit in 2008, as well as evaluation challenges (for examples see HIV Australia special editions: O’Keefe & Forbes, 2012, 2013). Evaluation, if conducted, has generally included a mix of reviewing website metrics, periodic qualitative analysis of the interaction, and focus group discussions. This often occurs in the development of these initiatives but less frequently on a sustained basis.

Some use has been made of targeted surveys in partnership with community groups (Brown & Johnston, 2013), or extrapolation of findings from broader community research surveys such as the Gay Community Periodic Surveys, to evaluate social marketing of community initiative, with varying degrees of usefulness. There have also been limited examples of the use of modelling, such as in South Australia where it was used, among other purposes, to investigate key drivers of past trends in HIV and evaluate the contribution of a range of testing promotion programs in South Australia (Wilson, 2010).

In the international literature, most evaluation identified at the community level was focused on mass media or social media promotional strategies, some with additional community level outreach and engagement. As
with Australia, the evaluation was generally a mix of cross-sectional surveys identifying reach, pre- and post-test surveys of trained outreach peers, and complemented with focus groups. There were some examples of programs combining evaluations of multiple years of a social marketing campaign to elicit, where possible, insights into the impact or role of sustained campaigns, as opposed to the more common short-term reach evaluation (for an example see the ‘HIV stops with me’ campaign in the US: Pappas & Leonard, 2012).

There were also examples of reflective evaluation of broader community development initiatives such as programs looking at the impact of developing PLHIV leaders through action research programs and other community engagement roles (Li et al., 2012).

A number of studies have been conducted across countries to map the range of HIV community-based initiatives and pilot projects with CALD communities in an effort to gain an insight into current practice. These initiatives generally had the same results; for example, mapping conducted in Canada (Peake, 2011; Public Health Agency of Canada, 2009) was able to included much of the community-based work, but found there has been little impact evaluation of programs and limited development of transferable practice (Public Health Agency of Canada).

Internationally, there were a number of examples of the pooling of community practice experience, social research and community consultation into ‘good practice guidelines’ and benchmarks to guide policy and on-the-ground community development programs. Examples include the ‘Making it Count’ resources for gay men in the UK (CHAPS Partnership, 2011b), and the PAKOMI program for CALD in Germany (AIDS Hilfe Germany, 2012) and the KWP program in England (Dodds, Kode, & Chwaula, 2009). Less frequent were consolidated and online good practice guidelines for community level programs for PLHIV (other than recommendations concerning participation of PLHIV or ensuring other community programs did not increase stigma and discrimination).

**Structural level programs**

In Australia’s response to HIV substantial structural changes have occurred at a social, legal, health systems and community sector level. Current structural interventions in Australia typically involve regulation, funding and policy reform to improve effectiveness of health promotion, increase access to services and reduce discrimination; capacity-building in community, health service and research organisations; developing partnerships with sectors beyond health; and bringing about political change. Australia’s response has also been characterised by principles articulated in the National HIV Strategy (Australian Government, 2010) and in state and territory policy documents. These gave been complemented by policy advisory structures at the Commonwealth, state and territory level. In the past, there have also been initiatives that aimed to reinforce this progress in structural level approaches through the development of benchmarks for HIV prevention (IGCHARD, 2007; Malcolm A et al., 1999) and in some areas, evaluation (Lowe & Nutbeam, 1999).

However, the evaluation of these and other structural approaches in HIV prevention, or the use and achievement of benchmarks, has been far less evaluated than other intervention levels even though they are recognised as a major contributor to the success or failure of programs. In Australia, evaluation of structural level interventions to date has required the complex synthesis or extrapolation of different data, such as the
earlier evaluations of the National HIV Strategy (Moodie et al., 2003) or the later tri-state comparisons in 2007 (Bernard et al., 2008). Challenges have included: the lack of indicators or benchmarks for structural interventions such as policy reform; investment in community, clinical and research organisations; or strengthening the partnership and leadership in the HIV response.

In the international literature, few structural programs have been rigorously evaluated and are generally beyond the scope of an individual organisation. This was highlighted in recent international policy and interagency meetings discussing HIV prevention in developed countries (Brown et al., 2012; Peake, 2011). However, investment in understanding and evaluating structural interventions has been increasing. One example is the STRIVE program at the London School of Hygiene and Tropical Medicine that has the ambitious aim of developing mathematical models that account for social and structural factors and demonstrate their influence on risk behaviours that cause HIV (STRIVE, 2013). Similar modelling techniques to map the impact of structural changes to health systems are being undertaken by researchers at Kirby Institute in Australia (Wilson, Fairley, et al., 2011).

Recently a number of countries have undergone significant reorientations and reorganisations within their HIV responses at a structural policy level. Examples include in the UK, through the establishment of HIV Prevention England (HIV Prevention England, 2012); in the USA the reorientation of the Centre for Disease Control’s HIV program in the USA (CDC, 2011a); or the mobilisation of cross-European quality improvement networks (IQhiv, 2012). The effectiveness of these reforms, and their capacity to strengthen the HIV prevention response and its evaluation, is yet to be seen.

**Combination or System-wide Prevention**

Evaluations of HIV prevention at a combined or system level (such as a combined individual, group, community, and structural level program) are difficult to design and implement and usually require coordination across many organisations. While epidemiological and behavioural surveillance can indicate population level outcomes, and therefore insight into the impact of a combined approach, there has been less investment found in evaluating the contributions, influences and synergies within that combination or system.

At a policy level, utilisation of modelling and economic evaluations to either establish expected outcomes or to track actual results against expectations at a population level have been increasing; for example, modelling HIV testing and treatment in the context of either maintaining or increasing other behavioural strategies (Wilson, Prestage, et al., 2011).

In the international literature, areas in which community organisations had the most capacity for evaluation across a combination of programs was in multi-agency and multi-level initiatives to increasing HIV testing within particular target groups. For example, where a range of individual outreach, community media and structural service level changes were implemented with enhanced monitoring of changes in testing indicators at sentinel testing services (Bangel & Davenport, 2012). Another example is the investment in STRIVE in the UK, and its planned use of modelling and evaluation of structural interventions within a combination prevention approach (STRIVE, 2013).
Significant investments have been made in North America and Europe to mobilise capacity and resources to improve MEL in the incorporation or roll-out of new prevention approaches—with some of these presented in Section 4. This may also be an opportunity for Australia.

In 2012 a National Roundtable on Evaluation of Multilevel/Combination HIV Prevention Interventions was conducted in the US, drawing together expertise in HIV evaluation from the US and internationally (Charlebois et al., 2012). The roundtable found that, to address the lack of evaluation of multi-level programs, there needs to be a combination of the statistical rigour associated with clinical trials, the conceptual framework of implementation science, the on-the-ground programmatic monitoring and evaluation, and the strengths of pre- and post-intervention mathematical modelling. While the recommendations focused on the evaluation of multilevel and combination prevention within the US, many were more broadly relevant. The recommendations included calls for:

- More effective use of enhanced public health surveillance, mathematical modelling, economic analysis in the evaluation of combined approaches
- Increased use of social and behavioural science in the design, implementation, and evaluation of combination interventions (e.g., evaluating community engagement and mobilisation interventions)
- Increased use of mixed methods, including key informant interviews with program implementers and target population, are recommended to increase understanding of how and why interventions are successful or not
- Increased investment in the development of innovative evaluation methods across multi-level programs.

3.4 SUMMARY

Reflecting on the findings and recommendations from the AFAO 2008 evaluation audit (Wilkins & Booker, 2009), some shifts in evaluation practice in HIV organisations around Australia have been observed. There was some indication of increased use of program logic and/or program theory and evidence of programs having ad hoc reviews, or trialling approaches to improve the program’s ability to demonstrate its impact. However, this was not consistent across the areas reviewed, or across programs within agencies. These have generally been within targeted or new projects rather than at a systemic level. The indication was that particular projects had enhanced their impact and quality practice evaluation due to being in the pilot stage of development, having larger funding and resource capacity, or enthusiasm of the staff to progress evaluation despite the many competing priorities. However, other programs had longer histories of development and evolution without embedded quality improvement or impact or evaluation approaches, and possibly less priority and resources to demonstrate their impact.

There was little indication of investment in drawing together the learning for quality practice, for approaches for sustainable MEL, or for the development or reorientation of programs at a sector-wide level. Although participatory action research and other developmental research approaches have been popular in this area, there has been limited development of shared core learning about key quality practices and approaches particular to the Australian context, to building capacity to demonstrate impact of a mix of strategies, or to identifying key synergies across programs. Generally evaluation was conducted on a siloed basis, and the
evaluation of a combination of programs, and understanding the synergies between them, has had little development.

There have, however, been indications of strengthening capacity and opportunity:

- Examples of developing innovative approaches in evaluation are many. Combining expertise and resources of the community sector, consultants and research sectors has supported the continued development of approaches to evaluate targeted social marketing. There have also been some developments in drawing on evaluation or data from other programs, or surveillance data from other sources, to provide insight into the progress or impact of community engagement, mobilisation or development strategies.

- Conferences attended by the community sector have also increasingly included presentations on the evaluation of community-based interventions. In Australia, the AFAO Gay Men’s HIV Health Promotion Conference demonstrated the largest proportion of the three Australian conferences reviewed—to be expected as this is a substantial part of the aim of the conference.

- With the implementation of new testing models and the potential for test and treat an opportunity exists to complement the collaborative implementation with collaborative monitoring and evaluation systems to ensure sustainable interventions are established. It will also be important to monitor and evaluate the impact these new prevention strategies will have on existing prevention strategies and the synergies between them.

- Over the past five years there has been an increase in community organisations commissioning and undertaking their own social research, utilising a range of community and peer-based models within this research.

To summarise the results of the rapid review of MEL developments in the community sector, the following table (Table 2) was developed. The terms used are comparative and intended to provide an overview within the focus of this review rather than specifics across all contexts.
### TABLE 3.1: SUMMARY OF WHERE MEL APPROACHES ARE MOST, MODERATELY OR LEAST DEVELOPED

<table>
<thead>
<tr>
<th>Intervention level</th>
<th>Strategies (examples)</th>
<th>Process and quality practice indicators</th>
<th>Impact Indicators</th>
<th>Combination prevention or system-wide synergy indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structural</td>
<td>Policy and law reform, advisory structures</td>
<td>Moderately developed</td>
<td>Least developed</td>
<td>Least developed</td>
</tr>
<tr>
<td>Community</td>
<td>Community engagement and mobilisation</td>
<td>Moderately developed</td>
<td>Least developed</td>
<td>Least developed</td>
</tr>
<tr>
<td>Online Social Media</td>
<td>Least developed</td>
<td>Least developed</td>
<td>Least developed</td>
<td>Least developed</td>
</tr>
<tr>
<td>Mass media</td>
<td>Most developed</td>
<td>Most developed</td>
<td>Least developed</td>
<td>Least developed</td>
</tr>
<tr>
<td>Small Group</td>
<td>Structured peer-based workshops</td>
<td>Moderately developed</td>
<td>Moderately developed</td>
<td>Least developed</td>
</tr>
<tr>
<td>Individual</td>
<td>Peer Counselling Models</td>
<td>Most developed</td>
<td>Moderately developed</td>
<td>Moderately developed</td>
</tr>
<tr>
<td></td>
<td>Professional Counselling Models</td>
<td>Most developed</td>
<td>Most developed</td>
<td>Moderately developed</td>
</tr>
</tbody>
</table>

While many areas would need strengthening, it could be argued there is an increasing appetite for improving monitoring and evaluation in the community sector. This increasing breadth of skills, capacity and experience is an opportunity on which cultures supportive of MEL, and sharing of results, could be built.
4.0 Capacity and system-building to increase quality evidence

4.1 BUILDING CAPACITY FOR EVALUATION AND LEARNING IN HIV COMMUNITY ORGANISATIONS

Increasingly, governments and funding organisations are acknowledging the need to increase the skills and capacity of the health promotion workforce as well as strengthening the prevention system, as indicated in the National HIV Strategy (Australian Government, 2010). An important part of this is the increasing capacity for evaluation and evidence-building. Key work in this area has recognised that evaluation capacity-building entails not only developing the expertise needed to undertake routine, robust and useful evaluations, it is also about promoting an organisational culture in which evaluation and learning is a routine part of practice. It recognises the varied uses to which evaluation findings can be put to improve programs, as well as the valuable by-products such as the development of shared understandings of programs within and across agencies and where they fit within a broader combination of programs (Beere, 2005; Naccarella et al., 2007).

Forss, Kruse, Taut, & Tenden (2006) argued that for evaluation and the building of evidence to flourish, it needs to be valued and understood throughout an organisation or sector, not just by management or an evaluation service (Forss et al.). Beere (2005) proposed that an effective program evaluation helps create a market in an organisation for future evaluation projects and so support and create momentum for capacity-building efforts.

The REACH project in Victoria (Brown & Johnston, 2013) identified and reviewed a number of key published studies conducted by funding programs in social change and in HIV prevention aimed at building the evaluation capacity in community sector organisations.1 While all the studies contributed to a broader understanding, two were identified as having particular relevance to the REACH Partnership Project and to the purposes of this review. The first was a study undertaken by the US Centre for Disease Control 10 years ago with 61 community-based organisations (Gilliam et al., 2003), and the second was a more recent evaluation and capacity-building initiative with 24 community-based organisations funded by the Pfizer Foundation Southern HIV/AIDS Prevention Initiative (Mayberry et al., 2009).

Gilliam et al. (2003) conducted a study with 61 community-based organisations (CBOs), nine health departments, and 28 technical assistance providers; they found four key factors influencing evaluation behaviour: funding agency expectations; resources; leadership and staff; and evaluation tools and technology (Gilliam et al.). These factors were then used to develop a model that described three stages of evaluation capacity along which community-based organisations could move, if provided experience and support. The three steps were:

1 (These included: Beere, 2005; Forss et al., 2006; Gibbs, Napp, Jolly, Westover, & Uhl, 2002; Gilliam et al., 2003; Mayberry et al., 2009; Naccarella et al., 2007; Napp, Gibbs, Jolly, Westover, & Uhl, 2002; Oliva, Rienks, Udoh, & Smith, 2005; Painter, Ngalame, Lucas, Lauby, & Herbst, 2010; Shea, Callis, Cassidy-Stewart, Cranston, & Tomoyasu, 2006)
Compliance (fulfilling funding source requirements)
Investment (beyond compliance, evaluation is used to improve programs and is supported by leadership)
Advancement (beyond investment, evaluations are increasingly ambitious and contribute to prevention theory and practice) (Gilliam et al.).

Building on this work, Mayberry, Daniels et al. (2009) conducted a private/academic partnership that addressed the evaluation capacity needs of 24 CBOs funded by the Pfizer Foundation Southern HIV/AIDS Prevention Initiative. The study reported five recommendations:

- Conduct systematic needs assessment prior to and throughout the course of the program
- Adopt practical, hands-on learning opportunities
- Employ quantitative and qualitative methods to measure the successes of program delivery and outcomes
- Offer or facilitate ongoing technical support
- Provide opportunities for sharing evidence-based practices (Mayberry et al.).

Mayberry et al. (2009) assessed key program staff members at 12 and 18 months after the initial cross-site program assessment survey, and indicated a significant improvement in the organisations’ knowledge, skills, and abilities and a substantial reduction in their technical assistance needs for evaluating HIV/AIDS prevention. Gilliam et al. (2003) and Mayberry et al. found that most lessons were learnt in the process of conducting evaluations after some technical assistance. Mayberry et al. found that technical assistance and evaluation ‘were indistinguishable’, finding they would collaboratively recognise and address many issues and complex challenges of community level intervention planning and implementation. Many programs, such as those described in Forss et al. (2006) found that the process of achieving substantial buy-in and organisational change was slower than originally expected. Practical and structural issues, such as timing, skills, team composition, structure of budgets, and incentive systems needed to be planned for capacity development ‘so that the learning process becomes an explicit and realistic goal; good intentions do not suffice, as many other pressures arise during an evaluation’ (Forss et al.).

Building on this and other work, the next section provides examples of different current approaches to improving the capacity of community organisations in evaluation and quality improvement. This is not an exhaustive list but a selection of examples to provide an overview of the variety of current initiatives internationally and in Australia.
4.2 INTERNATIONAL EXAMPLES OF BUILDING CAPACITY IN MONITORING, EVALUATION AND QUALITY IMPROVEMENT

The examples provided here are: a multi-country quality improvement initiative; a national collaboration initiative; and two nationally resourced but locally focused initiatives.

IQhiv (Quality Improvement in HIV Prevention)

The IQhiv initiative in Europe was launched in 2009 with two primary objectives:

- To promote the routine inclusion of quality improvement practices into HIV prevention across Europe at the project, program and policy levels
- To disseminate information on quality improvement practices shown to enhance the effectiveness of HIV prevention at the project, program and policy levels.

IQhiv identifies, adapts and disseminates practical tools for quality improvement that can be used to assess and strengthen operations and activities. In turn, efforts to improve quality help identify and collect evidence for good practices. IQhiv provides training workshops, technical support, as well as development of quality practice guidelines in collaboration with community and other agencies.

The IQhiv project has developed a useful diagrammatic way of expressing how quality practice guidelines, developed through evaluation and evidence-building, can support on-the-ground work in HIV prevention. The IQhiv graphic to the right illustrates this process (IQhiv, 2011).

The project has also hosted a number of cross-European conferences and network meetings to share and develop the approach. The report of the first stage of the IQhiv project is yet to be released. See www.iqhiv.org for more details.

Quality improvement is a developing area within HIV prevention while regularly recommended in the literature, few studies have been published regarding the use of quality improvement approaches in health promotion.

HIV Prevention England and Sigma Research

HIV Prevention England (HPE) is a new national approach in England to achieve a nationally coordinated program of HIV prevention work with UK-based African people and with gay men and other MSM. The approach aims to pool resources across campaigns, online services, local work and policy work (HIV Prevention England, 2012). A key part of this approach is the evaluation, capacity-building and sector communication roles of Sigma Research (which has a long history in evaluation of the HIV strategies in the UK) and NAM-AIDSMap, which provides tailored dissemination of new epidemiological data, research findings, evaluations of interventions, guidance and policy developments to partners and the wider HIV sector in England. This coordinated approach to HIV prevention and support programs, monitoring and
evaluation and sector development and communication commenced in 2012; its impact is yet to be assessed.

**Shared Action: Partnership for evidence-based capacity-building (AIDS Project Los Angeles)**

Shared Action is a capacity-building program delivered by AIDS Project Los Angeles (APLA) in collaboration with the Centre for HIV Identification Prevention and Treatment Services at the University of California Los Angeles. Funded by the Centres for Disease Control (CDC), the program is one of five such programs in the US that aim to strengthen organisational structures and the capacity of individuals, groups and organisations to deliver HIV interventions and undertake monitoring and evaluation. Shared Action aims to take a multi-layered approach to capacity-building via tailored capacity-building assistance, skills-building, and information and technology transfer. The program also provides a toolkit of resources via its website ([www.sharedaction.org](http://www.sharedaction.org)). Shared Action HD ([www.sharedactionHD.org](http://www.sharedactionHD.org)) is the part of the program focused on capacity-building assistance to health departments.

**Enhanced Comprehensive HIV Prevention Planning (ECHPP) Project**

ECHPP is a three-year demonstration project implemented across 12 metropolitan areas with the highest number of people living with HIV in the United States. Launched in September 2010, the project is funded by the CDC’s Division of HIV/AIDS Prevention and works with local and state level health departments ‘to identify and implement a “combination approach” to enhance effective HIV prevention programming in targeted communities. These efforts both supplemented existing programs and helped better focus efforts on key at-risk populations’ (CDC, 2012)

CDC’s ECHPP evaluation goals are to:

- Assess optimal combinations of approaches to HIV prevention, care and treatment activities within the ECHPP jurisdictions.
- Use surveillance data to assess the impact of local prevention, care and treatment programs.
- Track jurisdictions’ progress towards achieving National HIV/AIDS Strategy goals utilising a variety of data types and sources.
- Conduct additional data collection activities to monitor and evaluate ECHPP implementation in select cities

While the project includes process, outcome and impact evaluation it also includes system level monitoring and evaluation to understand ‘what combinations of HIV prevention, care, and treatment programs contribute to positive outcomes among priority populations’. Interventions are divided into three categories: required, recommended to consider, and innovative. While the project is taking a combination approach to prevention, treatment and care the ‘required’ interventions are mainly clinical, individual-based approaches such as HIV testing, STI screening for PLHIV, ART provision and adherence promotion, post-exposure prophylaxis provision and targeted distribution of condoms and lubricant. ‘Recommended’ interventions and strategies are more likely to be community-based, community level and linked with other social factors influencing HIV transmission or poor health outcomes for PLHIV (CDC, 2012). It is unclear how the research will assess the effectiveness and interplay of the combination of programs as the majority of data collected is
related to service reach, testing surveillance and individual clinical outcomes. At this stage only first-year summary reports have been released.

4.3 AUSTRALIAN EXAMPLES OF BUILDING CAPACITY IN MONITORING, EVALUATION AND QUALITY IMPROVEMENT

The examples provided here illustrate approaches from a national peak organisation, two state-based sector approaches, and a single agency approach. Examples are limited to programs targeting PLHIV, gay men and priority CALD communities.

AFAO Evaluation Mentoring & Training Project

The AFAO Evaluation Mentoring and Training Project was implemented during 2011 and developed from the evaluation of the AFAO Health Promotion Training program (Spina, 2008a) and recommendations of the AFAO Evaluation Audit (Wilkins & Booker, 2009). Available to a small number of staff from AFAO and NAPWha member organisations, the aims of the project included:

- Gaining a working understanding of process, impact and outcome evaluation approaches, and will be able to articulate how each may relate to common health promotion initiatives in HIV, and their own area of work
- Developing skills in designing appropriate evaluation methodologies and processes in relation to common HIV health promotion initiatives (e.g., social marketing, peer education, outreach), and their own area of work
- Undertaking supported evaluation work in relation to a specific project or set of projects, learning and applying methodologies appropriate to the evaluation task
- Producing a report on the evaluation of a specific project or set of projects.

The follow-up evaluation is planned for 2013.

The Evaluation Mentoring and Training Project was conducted as part of an overall capacity-building program that includes the AFAO National Gay Men's HIV Health Promotion Conference. Held biennially, this conference is one of the key mechanisms for people who work in HIV education health promotion and policy, with a particular focus on education for gay men and people living with HIV, to share evaluations. The conference provides an opportunity for HIV educators, policy-makers and researchers to network, highlight best practice, and discuss practical and strategic health promotion responses to emerging issues in the HIV epidemic in Australia. The most recent conference held in 2012 focused on HIV treatments; more specifically, treatment as prevention, and point-of-care testing for HIV and its implications for health promotion and HIV prevention. It is clear from the previous conferences’ call for papers and this conference that the organisers have encouraged a move from project implementation abstracts to project evaluation methods and findings, with some success (Spina, 2010b, 2012a).

REACH: Reinvigorating Evidence for Action and Capacity in Community HIV programs (Victoria)
The REACH Partnership (Brown & Johnston, 2013) was a collaborative research and practice initiative to develop evidence-building frameworks, tools and resources with the HIV community sector in Victoria, Australia. Overall, the focus of the REACH Partnership is to build a shared evidence base that is recognised in policy and practice as credible, applicable and useable. The program has undertaken an inter-sectoral partnership approach with an emphasis on action research approaches, and empowering the community sector to develop sustainable and innovative ways of building their own evidence, and a more strategic engagement with external research centres. Following an audit of the sector and published and grey literature, the project consisted of three main activities:

- The development of a broad policy logic framework
- Participatory action research to develop program logic frameworks and trial evidence-building approaches
- Capacity-building and mentoring for sector staff.

The REACH project adapted the framework from the IQhiv project to guide its first 18 months as shown in the following figure:

In 2011 and 2012 the REACH Project surveyed managers and staff from REACH partner organisations to identify shifts in evaluation capacity and organisational culture towards evaluation and to establish recommendations for 2013. While the sample was small, results indicated a shift in organisational culture towards supporting and conducting evaluation in 2012 compared to 2011. Evaluation was valued more and this was demonstrated in higher rated responses to questions regarding evaluation planning, staff involvement in evaluation activities, incorporating evaluation into project planning, support for staff to develop evaluation skills, and more respondents wanting the opportunity to share skills and learn from other staff across the sector (Brown & Johnston, 2013).
The REACH project recommended that future work should shift away from an emphasis on targeted action research with particular staff and projects, and reorient towards working at a program, agency and sector level to embed the changes in practice (Brown & Johnston, 2013).

**SiREN: Sexual Health and Blood-borne Virus Applied Research and Evaluation Network (Western Australia)**

SiREN is an applied research network that aims to strengthen existing, and create new, partnerships by promoting and facilitating WA-based applied research and evaluation relating to the prevention and control of STIs and BBVs. SiREN was established in 2010 but was not formally resourced until mid-2012. The network currently comprises 18 organisations.

The objectives of SiREN include:

- Identifying sexual health and BBVs public health research priorities for priority populations within WA specified in the national STI, hepatitis and HIV strategies, and the WA model of care implementation plans
- Developing partnerships between WA-based researchers, the Department of Health WA’s Sexual Health and BBV Program, and national sexual health and BBV research centres
- Developing and enhancing partnerships between government and non-government service providers, researchers and policy-makers
- Contributing to an evidence base to inform the Department of Health WA’s policy and decision-making for the prevention and control of STIs and BBVs within WA.

Based at the WA Centre for Health Promotion Research at Curtin University, SiREN provides professional development via workshops and resource provision, and mentoring on research and evaluation, by linking organisations to researchers and to support organisations to develop research or evaluation questions. It also enables organisations to access evidence, data and other information that will support the development of their projects, access information to support research and evaluation activities, and receive notice of upcoming training and skills-building events (see [www.siren.org.au](http://www.siren.org.au)). Eight research and evaluation demonstration projects are currently linked with SiREN.

In November 2012, SiREN conducted a sector needs assessment survey to determine the training and skills needs of the BBV and sexual health sector in WA (Lobo, 2013). While the survey only captured a small cross-section of the sector it found:

- The importance of research and evaluation was very high
- Respondents were interested in developing their research and evaluation skills
- The likelihood of undertaking research and evaluation activities within current roles was fairly high
- Training and resources, ongoing support and encouragement to participate in research and evaluation were enablers for research and evaluation activities, as well as some level of additional funding
- Western Australian evidence associated with priority groups was lacking and considered important.

Following the survey, two priorities were established for SiREN for 2013:
- A focus on workshops and toolkit resources that address reported knowledge and skills gaps in planning and evaluating programs.
- Provision of information and support in relation to the research process; for example, guidance with ethics submissions, identification of funding opportunities, review of draft project plans, support in developing an evaluation strategy for a program (Lobo, 2013).

ACON

In late 2012, ACON undertook a review to investigate options for aligning planning and evaluation processes across the organisation. ACON identified the need to invest in monitoring, evaluation and learning system due to existing gaps within its currently planning and data collection systems. Consultations were held across the organisation with all staff to review evaluation methods (process and impact), data collection and storage, project maintenance and reporting systems.

The consultations resulted in the development of the Planning, Evaluation, and Knowledge Management (PEKM) Framework (Luke & Harris, 2007). The PEKM framework is based on the project management cycle: ‘Plan, Do, Evaluate, Review’. However, ACON has incorporated the key component ‘Share’. The framework can be used at both the strategic and operational levels for constant and reflexive planning and evaluation, quality improvement, and a stronger focus on impact rather than outputs.

The framework is intended to support adaptation to shifting parameters, whether they be internally orientated or due to more complex funding arrangements, reporting requirements, and new service delivery opportunities.
5.0 Monitoring, Evaluation and Learning (MEL) and Quality Improvement (QI) framework for community HIV prevention

5.1 INTRODUCTION

A set of health promotion programs (such as in HIV prevention) can be thought of as a complex system or highly connected collection of systems. Drawing on the work of UNAIDS (2009), Hankins and de Zalduondo (2010) defined combination HIV prevention as:

‘evidence-informed and human rights-based combination of behavioural, biomedical, and structural interventions to address both the immediate risks and underlying causes of vulnerability to HIV infection, and the pathways that link them’ (p. S70).

Efforts to maximise the impact of combination HIV prevention approach has much to gain from a systems perspective, as how one conceptualises or views a system can have an impact on how one carries out an evaluation (Behrens et al., 2007). Practitioners and policy-makers need evaluation to be driven by a clear understanding of the program within a broader system, and to engage with monitoring, evaluation and learning and continuous quality improvement as a prevention-strengthening process.

In recent years there has been a move to combine the strengths of program logic, theory-based evaluation, quality improvement and systems thinking to build a more rigorous understanding of health promotion programs, their development, role and evolution, as well as their impact and capacity to contribute to the broader evidence in HIV prevention (Auerbach et al., 2009; Pawson & Sridharan, 2009). The use of systems approaches and quality improvement is compatible with theory-based evaluation and contemporary program logic approaches, in that it engages with the reality of the broader system and recognises that cause and effect may not be linear but may be cyclical, multifactorial or have competing influences, and can be dependent on broader system level factors. A systems approach would include: defining what the program is and is not; identifying the components (parts) of the program; and defining the relationships among the parts and between each part of the program and the program as a whole, and their stability or fluidity (Cabrera, Colosi, & Lobdell, 2008). Using a systems perspective in the building of evidence is consistent with the National HIV Strategy and National Partnership Agreement on Preventative Health (NPAPH). These both highlight the need to engage with health promotion and preventative health in the context of a broader system of multiple settings and communities that are led, funded and implemented across various organisations.
It is with this context in mind that the ESAPP project has built on the work of the REACH project (Brown & Johnston, 2013) and developed a draft MEL&QI framework that acknowledges the complexity of the health, social and political systems in which HIV prevention operates, and the strengths of the partnership response. It also seeks to incorporate the rigour of program logic and theory-based evaluation, quality improvement, and their role in strengthening HIV prevention systems.

5.2 MEL AND QI FRAMEWORK

The framework is described below in four figures. Figure 1 represents an understanding of HIV prevention and health promotion operating at multiple levels (individual, group, community, and structural). The triangular shape represents the scope of the health promotion program. At the narrow end of the triangle are tailored actions for individuals. As the triangle widens, so does the emphasis of the actions, such as group-focused strategies, whole community level strategies, and broad structural or social level strategies and changes. These strategies operate as a combination or system of interrelated strategies where the process and impact of one project influences another, as represented by the circular arrows. This highlights interaction across, to and from parts of the system whether it is strategically planned or not—and this may be positive or negative. As one example of how projects influence each other, a social marketing campaign may aim to challenge HIV stigma at a mass media level. This helps create an environment in which participants from a peer group workshop may be more likely to use their recently acquired skills and perspective to challenge stigma in their own peer groups. In doing so, these participants reinforce the campaign and leverage or sustain its impact. These continuously evolving combinations of strategies are necessary to achieve the long-term population health outcome of reduced transmission and impact of HIV.

![Figure 5.1: Integrated Mix or Combination of Health Promotion Actions and Outputs](image-url)
Figure 5.1 represents one single community in a closed system, and the impact of programs exclusive to that community. HIV prevention and health promotion, however, work across multiple communities and settings. Figure 5.2 (below) identifies three overlapping priority communities (e.g., gay men, people living with HIV, and a priority CALD community). While individually-focused actions are tailored mostly to the individual, broader actions impact across and are relevant to more communities, and at the structural levels strategies and communities overlap the most (the darker shading).

This highlights the need to consider a systems approach that makes the most of synergy in areas of overlapping context and impact, as well as the reinforcing role of strategies at different levels. Figure 5.2 adds health promotion actions and outputs as an interdependent system, representing an understanding of the relationship between strategies (and organisations implementing the strategies) and how they fit together (or not).

**FIGURE 5.2: HEALTH PROMOTION ACTIONS ACROSS MULTIPLE COMMUNITIES**

No project or program individually achieves the long-term or distal outcome of reduced transmission and impact of HIV. There are a series of short- and longer-term steps between the combination of health promotion actions and long-term outcome. Figure 5.3 incorporates examples of intermediate level indicators for project level impact, program level (multiple interconnected projects) impact, and prevention system level outcomes. Descriptors at prevention system level are based on the 6th National HIV Strategy, but can be adapted to any changes in future national strategies and to the jurisdictional level. Developing project and program level quality and impact indicators have been identified as a gap in the evaluation of national and some jurisdictional strategies (AFAO, 2012b; Flowers, 2013).
FIGURE 5.3: QUALITY, IMPACT AND OUTCOME INDICATORS

Figure 5.4 adds the broader system and context within which health promotion actions are operationalised and continuously evolve. On the far left, this includes external influences that define the context, and influence the mobilisation of communities and resources (such as social determinants and social drivers of HIV, the strength and participation of communities, human rights, developments in testing and treatment technologies). Next on the left are inputs and resources for the health promotion actions across priority communities. This includes factors such as guiding principles and ethics, partnership and leadership, as well as resource allocation, and the organisations across health care, community, research and policy.

Along the top of the figure is a box that represents the system learning culture where the monitoring and evaluation is translated into a growing evidence base and theories that guide HIV prevention practice; the implementation of this into continuous quality improvement, refinement of practice guidelines and standards, and development of the workforce; and the monitoring, evaluation and learning information system that completes the overall systems strengthening cycle. The framework includes the systems strengthening building blocks (indicated with an asterisk) described in the World Health Organization’s System Strengthening report (De Savigny & Adam, 2009).

The framework aims to build on previous work in the late 1990s when a number of initiatives in Australia developed guidelines to support the development of indicators and benchmarks for monitoring and evaluation of HIV health promotion programs for gay men (Lowe & Nutbeam, 1999; Malcolm A et al., 1999). The area was further developed through initiatives at a national level (IGCHARD, 2007) as well as at an agency level (Conway & Jackson, 2013).

The full framework represented in Figure 5.4 aims to simultaneously look at the project, program and system factors to understand the role of and relationship between the components of HIV prevention in order to guide planning and evaluation. Identifying where and how programs contribute to the overall work in HIV
prevention allows for the development of a more accurate program theory on which to base evaluation decisions, and to guide the development of a more integrated evidence base. The MEL Framework emphasises the dynamic relationship between evidence, theory and quality practice of the whole, not just the parts.

This framework supports the realisation of the guiding principles about partnership, evidence and evaluation described in the National HIV Strategy (Australian Government, 2010). A good example is provided by the community sector’s recommendations to achieve the UN Declaration on HIV, where it is highlighted that a supportive partnership model of evaluation is essential to ensure communities are not further marginalised by perceiving themselves to be ‘under surveillance’, and that quality and effective practice can be promoted, implemented and refined (AFAO, 2012a).
6.0 Application of the framework

6.1 INTRODUCTION

The following section presents draft applications of the draft MEL framework to projects across the individual, group, community and structural levels in HIV prevention.

In applying the framework, the aim is to provide examples of ways to:

- Evaluate projects and programs against the quality and impact indicators with which they can be realistically measured (e.g., short-term project impact through to longer-term or more distal program level impacts and their relationship to prevention system level impacts).
- Understand relationships between the projects and programs in the system so as to determine the best combination and leverage the most effective impact.

This application is intended as a complement to general good practice health promotion monitoring and evaluation approaches and the development of program logic frameworks for projects and programs. Depending on the context, alternative terms may be preferred to ‘indicator’, such as ‘objectives’, ‘key performance indicators’ or ‘benchmarks’.

The responsibility for monitoring indicators at the project, program or system level would vary. For example, it is expected that the focus of project or service staff would be project level quality, monitoring and evaluation, with only some involvement in the broader program level, as this would generally be the focus of the agency as a whole. This cascade of monitoring focus or participation is illustrated in Table 6.1.

### TABLE 6.1 GUIDELINES FOR PARTICIPATION FOR COLLECTING AND SUMMARISING MEL DATA

<table>
<thead>
<tr>
<th></th>
<th>Project level quality, monitoring and evaluation</th>
<th>Program level quality, monitoring and evaluation</th>
<th>Prevention system level quality, surveillance monitoring and evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project /Service staff</td>
<td>Often</td>
<td>Sometimes</td>
<td>Rarely</td>
</tr>
<tr>
<td>Agency/Program</td>
<td>Often</td>
<td>Often</td>
<td>Sometimes</td>
</tr>
<tr>
<td>External evaluators</td>
<td>Sometimes</td>
<td>Often</td>
<td>Sometimes</td>
</tr>
<tr>
<td>Epidemiology and Social Research Centres/Departments</td>
<td>Rarely</td>
<td>Sometimes</td>
<td>Often</td>
</tr>
</tbody>
</table>

A range of hypothetical projects are used in the tables to illustrate the application, with example indicators that relate not only to the quality and impact of the project, but also to the quality of its links with other projects within a broader combined program. Identifying clear project level quality and impact indicators, as well as cross-project connections, will identify where and how the project is linked within a system of...
projects. For example, identifying the other aspects of the system on which the project is either dependent on or dependant to, and monitoring quality indicators for these connections.

The tables also separate the impact indicators that can be directly met by a project from the impact indicators that would be met at a program level (being a combination of projects) and the broader whole-of-system level indicators (such as at a national strategy level).

The development and refinement of this approach should build a deeper understanding of the impact and quality of the parts of the health promotion system as well as the combined health promotion system. This would then feed into refining the quality practice guidelines and evidence for a broader and sustainable combination approach.
<table>
<thead>
<tr>
<th>TABLE 4: INDIVIDUAL LEVEL PROJECT EXAMPLES</th>
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</thead>
<tbody>
<tr>
<td>Objective:</td>
</tr>
<tr>
<td>Improve HIV outcomes among people with HIV/AIDS</td>
</tr>
<tr>
<td>Project:</td>
</tr>
<tr>
<td>Community-led HIV intervention program</td>
</tr>
<tr>
<td>Methods:</td>
</tr>
<tr>
<td>Focus groups and community meetings</td>
</tr>
<tr>
<td>Results:</td>
</tr>
<tr>
<td>Increased knowledge and use of HIV services</td>
</tr>
<tr>
<td>Example:</td>
</tr>
<tr>
<td>Focus group discussion</td>
</tr>
<tr>
<td>Example:</td>
</tr>
<tr>
<td>Community meeting</td>
</tr>
</tbody>
</table>

| Objective:                              |
| Improve sexual health outcomes among people with HIV/AIDS |
| Project:                                |
| Sex education program                   |
| Methods:                                |
| Peer education sessions                 |
| Results:                                |
| Increased condom use                     |
| Example:                                |
| Peer education session                  |
| Example:                                |
| Community workshop                      |

| Objective:                              |
| Improve mental health outcomes among people with HIV/AIDS |
| Project:                                |
| Mental health support program            |
| Methods:                                |
| Individual counseling sessions           |
| Results:                                |
| Reduced anxiety levels                   |
| Example:                                |
| Individual counseling session            |
| Example:                                |
| Group therapy sessions                  |

| Objective:                              |
| Improve economic outcomes among people with HIV/AIDS |
| Project:                                |
| Economic empowerment program             |
| Methods:                                |
| Vocational training programs             |
| Results:                                |
| Increased employment                     |
| Example:                                |
| Vocational training program              |
| Example:                                |
| Community employment services            |

| Objective:                              |
| Improve social support outcomes among people with HIV/AIDS |
| Project:                                |
| Social support network                   |
| Methods:                                |
| Peer support groups                      |
| Results:                                |
| Increased social connectedness           |
| Example:                                |
| Peer support group                       |
| Example:                                |
| Community support groups                 |

| Objective:                              |
| Improve team building outcomes among people with HIV/AIDS |
| Project:                                |
| Team building program                    |
| Methods:                                |
| Leadership training                      |
| Results:                                |
| Improved team dynamics                   |
| Example:                                |
| Leadership training                      |
| Example:                                |
| Community team building                  |

<p>| Objective:                              |
| Improve project management outcomes among people with HIV/AIDS |
| Project:                                |
| Project management program               |
| Methods:                                |
| Oversight committees                     |
| Results:                                |
| Improved project management               |
| Example:                                |
| Oversight committee                       |
| Example:                                |
| Community project management              |</p>
<table>
<thead>
<tr>
<th>Health Promotion Group strategy</th>
<th>Example inputs and resources</th>
<th>Example quality practice indicators</th>
<th>Example indicators of Inter-project quality links</th>
<th>Example Project Output Indicators</th>
<th>Example Project level impact indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peer group workshop</td>
<td>Community organisation resources</td>
<td>Satisfaction measures from participants</td>
<td>Group interaction and dynamics indicators</td>
<td>Increase in group mediating and responding to stigma</td>
<td>Evidence of reciprocal learning between participants</td>
</tr>
<tr>
<td>Peer based staff and volunteers</td>
<td>Peer group workshop</td>
<td>Referrals from outreach, online initiatives, counselling etc.</td>
<td>Discussion or use of social marketing campaign within workshop</td>
<td>Community volunteer engagement indicators</td>
<td>Number of workshops conducted</td>
</tr>
<tr>
<td>Evaluation from previous programs</td>
<td></td>
<td>Increase in sexuality related health literacy and support seeking knowledge</td>
<td>Increase in skills and confidence to negotiate sexual interactions including safe sex practices</td>
<td>Increase in confidence to manage HIV disclosure in sexual and social settings</td>
<td>Increase in confidence to develop relationships (intimate and friendship)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Program Level and System Level Monitoring and Evaluation indicators to which the project contributes</th>
<th>Example Program level quality indicators</th>
<th>Program level impact indicators</th>
<th>Example System Level Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicators of participants influencing their peers in relation to program aims</td>
<td>Strengthened integration and strategic links across peer-based programs, community development and social marketing</td>
<td>Reduced risk behaviours</td>
<td></td>
</tr>
<tr>
<td>Increased indicators of sustained community responses among priority populations</td>
<td>Strengthened referrals pathways to and from counseling and testing services</td>
<td>Reduce incidence of HIV</td>
<td></td>
</tr>
<tr>
<td>Indicators of community level engagement with strategies</td>
<td>Increased health promoting social norms within priority communities</td>
<td>Decrease undiagnosed HIV</td>
<td></td>
</tr>
<tr>
<td>Volunteer recruitment from peer programs</td>
<td>Indicators of testing and treatment uptake</td>
<td>Strengthened systems in research, evaluation and workforce</td>
<td></td>
</tr>
<tr>
<td>Contribution to enhanced quality practice guidelines</td>
<td>Increase in levels of protective sexual risk behaviour and testing among program target group</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contribution of evaluation to evidence base</td>
<td></td>
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</tbody>
</table>

### TABLE 6: COMMUNITY LEVEL PROJECT EXAMPLES

<table>
<thead>
<tr>
<th>Health Promotion Community Strategy</th>
<th>Example inputs and resources</th>
<th>Example quality practice indicators</th>
<th>Example of inter-project quality links</th>
<th>Example Project Output Indicators</th>
<th>Example Project level impact indicators</th>
<th>Program level and System Level Monitoring and Evaluation Indicators to which the project contributes</th>
<th>Example System Level Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social marketing to promote voluntary HIV testing in priority populations</td>
<td>Community organisation PLHIV</td>
<td>Quality practice indicators for participation, evidence base and development process</td>
<td>Participation from peer and network-based programs</td>
<td>Initial and sustained recall indicators for media campaigns</td>
<td>Increase access to Community HIV point of care (rapid) HIV Testing</td>
<td>Reduced undiagnosed HIV</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Media and stakeholder engagement</td>
<td>Participation of peer volunteers in events</td>
<td>Engagement, use and referral indicators of online initiatives</td>
<td>Monitor relationship campaigns for testing promoting targeting other communities (such as general community or a CALD community)</td>
<td>Decreased time between diagnosis of HIV and engagement with HIV care options</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Focus group response</td>
<td>Links with Targeted community development and social influence</td>
<td>Changes in relevant knowledge, health literacy, attitudes and/or intended behaviour</td>
<td>Increased health literacy and interventions to protect the sexual risk behaviour and testing in at risk groups</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Quality implementation indicators</td>
<td>Discussion or use of social marketing campaigns within peer workshop</td>
<td>Media campaign reach research</td>
<td>Indicators of strengthened community participation</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Integration with other community health promotion strategies</td>
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<td></td>
<td></td>
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<tr>
<td>Community engagement to reduce HIV stigma and its impact</td>
<td>Community organisations PLHIV</td>
<td>Quality practice indicators for participation, evidence base and development process</td>
<td>Links with social marketing and peer-based PLHIV programs, and public education programs</td>
<td>Media/public profile Space for peer learning &amp; discourse</td>
<td>Indicators of strengthen community involvement</td>
<td>Increased community responses against stigma</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Stakeholder engagement</td>
<td>Tailored resource development</td>
<td>Increased capacity of groups to engage/ respond to stigma</td>
<td>Community capacity/skills</td>
<td>Decreased PLHIV reports of recent experiences of stigma</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Volunteer training</td>
<td></td>
<td></td>
<td>Maintenance or shift in stigma related to HIV</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Increased voluntary HIV testing among at risk groups</td>
<td></td>
</tr>
</tbody>
</table>

**Website**

- Workshops
- Collaborative promotional strategies
- Tailored resource development
- Volunteer training

**Example Program level quality indicators**

- Audit of social marketing quality practice indicators
- Community and volunteer capacity / skills indicators
- Indicators of strengthened community participation

**Example Program level impact indicators**

- Increase access to Community HIV point of care (rapid) HIV Testing
- Monitor relationship campaigns for testing promoting targeting other communities (such as general community or a CALD community)
- Increased health literacy and interventions to protect the sexual risk behaviour and testing in at risk groups

**Example System Level Indicators**

- Reduced undiagnosed HIV
- Decreased time between diagnosis of HIV and engagement with HIV care options
- Improved quality of life for PLHIV
<table>
<thead>
<tr>
<th>Example Project Level</th>
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<tbody>
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**Table 7: Structural Level Project Examples**
<table>
<thead>
<tr>
<th>Health Promotion Structural Strategy</th>
<th>Example inputs and resources</th>
<th>Example quality practice indicator</th>
<th>Example Indicators of Inter-project quality links</th>
<th>Example Project Output Indicators</th>
<th>Example Project level impact indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organisational change to implement an enhanced MEL&amp;QI framework</td>
<td>Community organisations and advocacy</td>
<td>Quality of evidence base</td>
<td>Establishment of communities of practice across modes of work</td>
<td>Quality practice indicators across primary, secondary and tertiary prevention</td>
<td>Sector wide commitment to quality improvement and evaluation</td>
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<td></td>
<td>Partnership, governance and leadership</td>
<td>Organisational leadership indicators</td>
<td></td>
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<td></td>
<td>Clinical and primary care services (medical and counselling)</td>
<td>Participation of stakeholders</td>
<td></td>
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<td></td>
<td>Transparency and sharing of evidence</td>
<td>Effective linkages and collaboration across programs and services</td>
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<thead>
<tr>
<th>Example Program level quality indicators</th>
<th>Program level impact indicators</th>
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</thead>
<tbody>
<tr>
<td>Use of monitoring, evaluation and learning in planning or refining primary, secondary and tertiary HIV prevention</td>
<td>Quality improvement cycles and evaluation culture actively supported at organisational, sector and government level</td>
</tr>
<tr>
<td>Establishment &amp; maintenance of HIV leadership network / community of practice</td>
<td>Audits of organisational monitoring, evaluation and learning culture</td>
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<tr>
<th>Example System Level indicators</th>
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</thead>
<tbody>
<tr>
<td>Strengthened systems in research, evaluation and workforce</td>
</tr>
<tr>
<td>Strengthened enabling environment</td>
</tr>
</tbody>
</table>
7.0 References


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UNAIDS. (2011). Operational Guidelines for Monitoring and Evaluation of HIV Programmes for Sex Workers, Men who have Sex with Men, and Transgender People.


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