

## PROGRAMME COORDINATING BOARD

UNAIDS/PCB (31)/12.18

Issue date: 22 October 2012

### THIRTY-FIRST MEETING

DATE: 11-13 December 2012

VENUE: Executive Board Room, WHO, Geneva

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#### Agenda item 4

**Follow-up to the thematic segment from the 30<sup>th</sup> PCB meeting Combination Prevention: Addressing the urgent need to reinvigorate HIV prevention responses globally by scaling up and achieving synergies to halt and begin to reverse the spread of the AIDS epidemic**

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**Additional documents for this item:** *none*

**Action required at this meeting - the Programme Coordinating Board is invited to:**

79. Take note of the summary report of the Thematic Session on combination prevention.
80. Call on governments to work with research institutions in public and private sectors, and with civil society, especially people living with and affected by HIV, to identify the key barriers – in particular the human resource and systems weaknesses – to the implementation of advances in HIV science in all settings.
81. Call for all national AIDS responses to be guided by the most up to date evidence of impact and effectiveness, including the use in all settings of validated estimates of HIV incidence through the best available methods.
82. Note with concern the impact of the treatment cascade on people living with HIV who are unable to access or, remain in, fully effective treatment and care and call for urgent steps to reduce the barriers and the “drop outs” within the cascade, in order to achieve the outcomes of keeping people alive and stopping new infections.
83. Request UNAIDS, together with research and implementing partners, to refine methods to assess the impact of behaviour-change programming in order to ensure the greatest impact and value-for-money.
84. Take note of the HIV prevention goals and targets adopted in the Political Declaration on HIV and AIDS: Intensifying Our Efforts to Eliminate HIV and AIDS (2011) which calls on governments, programme managers, donors, civil society and all stakeholders to support and extend the reach of efficient, evidence-based combination prevention efforts.

**Cost implications for decisions:** it is expected that these activities can be covered by existing resources from the UBRAF and other potential sources of funding.

## **BACKGROUND**

1. At its 28th meeting, the Joint United Nations Programme on HIV/AIDS (UNAIDS) Programme Coordinating Board agreed that the topic of the thematic segment of the 30th meeting would be “Combination prevention: Addressing the urgent need to reinvigorate HIV prevention responses globally to halt and begin to reverse the spread of the AIDS epidemic“.
2. The Background Note to the thematic segment (UNAIDS/ PCB (30)12.13) described global commitments in HIV prevention and combination prevention and challenges in meeting these commitments.
3. An in-depth exploration of how such an approach can be implemented took place during the thematic session on combination prevention at the 30th Programme Coordinating Board meeting held in June 2012. The discussion examined the value of combination prevention programmes and their components (biomedical, behavioural and structural) from different perspectives.

## **SUMMARY OF DISCUSSION AT THE 30th PCB THEMATIC SESSION ON COMBINATION PREVENTION**

4. There is an urgent need to reinvigorate HIV prevention in order to realise the vision of zero new HIV infections. The most effective approach is combination prevention, based on multi-faceted and tailored programmes.
5. The session highlighted four issues for follow-up which are considered further in this background paper:
  - a) the time-lag between the Global north and south in the speed with which scientific advances are implemented;
  - b) the need for scale-up across a prevention-treatment continuum; and
  - c) how to most effectively influence behavioural and social change;
  - d) that governments, programme managers and donors continue to promote and support prevention efforts.
6. Since its launch in 1996, UNAIDS has advocated for combination HIV prevention, meaning a set of programmatic actions, designed to prevent HIV, operating at different levels and using different tools:
  - a) Biomedical tools that change infectiousness or susceptibility;
  - b) Programmes to systematically encourage individuals to change their behaviours so they are less likely to be exposed to HIV;
  - c) Social change programmes, (also called structural programmes), which affect underlying conditions that impact on exposure to HIV, or whether individuals are likely to take up options of reducing infectiousness or susceptibility.
7. The Thematic session comprised plenary and breakout sessions.
8. Plenary sessions were presented as follows:
  - Opening words: Agnieszka Pachciarz, Under-Secretary of State, Ministry of Health, Poland
  - Welcome: Paul de Lay, Deputy Executive Director, UNAIDS

- What is Combination Prevention? : Michael Bartos, Chief, a.i., Science for Action Division, UNAIDS
- What is the evidence for effective responses? : Marie Laga, MD, PhD, Professor, Department of Microbiology, Institute of Tropical Medicine (Belgium); Meena Seshu, General Secretary, SANGRAM (India); Dr Ibra Ndoye, Executive Secretary, NAC (Senegal)
- Scaling-up Combination Prevention: Using science in strategic ways for different epidemics: Richard K. Matlhare, National Coordinator, NACA (Botswana); Alice Welbourn, PhD, Director, the Salamander Trust (UK)
- Linking data to decision-making: Rosalia Rodriguez-Garcia, Senior Evaluation Specialist, Global HIV/AIDS Programme (World Bank); George Ayala, Executive Director, Global Forum on MSM and HIV (USA)
- Final remarks: Jan Beagle, Deputy Executive Director, UNAIDS
- Closing: Agnieszka Pachciarz, Under-Secretary of State, Ministry of Health, Poland

## **CONCLUSIONS OF PLENARY SESSIONS**

### **Elements of combination prevention**

#### Behaviour-based and biomedical prevention

9. The behaviour-based HIV prevention methods, and those based on changing social structures and norms are mainly directed towards reducing HIV exposure. By contrast, the biomedical activities, especially the use of antiretroviral drugs in infected or uninfected individuals, as well as male circumcision, are more geared towards reducing transmission or acquisition of HIV in circumstances where exposure takes place.
10. Variable levels of evidence: The available evidence for different prevention activities varies: consistent condom use reduces HIV incidence by 80% and male circumcision confers a 55-60% reduction in the risk of HIV-uninfected men acquiring HIV from an HIV-infected woman.
11. Behaviour change, a key element of many HIV programmes has been strongly associated with reductions in HIV incidence. However, it has proved far harder to pin down exactly which specific elements of behaviour change programming have contributed to lowering the incidence.
12. Targeted programmes and those which enable individuals and communities to address socio-cultural barriers and social norms seem to have had the greatest effect. Effective targeting means tailoring activities to the situation and needs of the populations at highest HIV risk, which may be in particular geographic areas, or in some epidemics may be women, or may be particular populations, especially in concentrated epidemics, such as sex workers, people who inject drugs and men who have sex with men.

#### Treatment and prevention

13. Increasingly, treatment is recognized as being related to all aspects of prevention. The impact of treatment on transmission and on acquisition of HIV is highly adherence-sensitive. We know from the treatment cascade that even in high resource settings, the total proportion of the population living with HIV whose viral load is fully suppressed due to effective treatment may be under

20%. Therefore, the practical steps to maximize the potential for treatment to change transmission dynamics are to address the treatment cascade, especially the steps where most people drop out of the sequence of treatment services. Community mobilization has been shown to play a crucial role in adherence and can play an important role in intervening at the different steps of the cascade.

14. "Addressing the behavioural and structural components of an epidemic is not simple and there has been a tendency to focus on biomedical interventions", commented Dr Marie Laga, head of the HIV/AIDS policy unit at the Institute of Tropical Medicine, Antwerp, Belgium in her presentation to the session. However, the behavioural components of HIV prevention, e.g., adhering to antiretroviral therapy, accepting HIV testing, negotiating condom use, and overcoming stigma are essential to make biomedical tools work. For example, the session heard from Meena Saraswathi, General Secretary of the civil society organization, Sangram, "... that sex workers in India face structural barriers to access HIV prevention services, as well as the high stigma and discrimination associated with the disease. Yet sex workers are agents of change, capable of averting the epidemic with the right support", she said.

## **LESSONS FROM COUNTRY EXPERIENCES**

### Local needs

15. All participants emphasized that combination prevention strategies must respond to local epidemiological and demographic requirements of different groups in a general population. There was also concern that there is too wide a gap between scientific breakthroughs in HIV prevention in the North and applications at country level in the South.
16. A key conclusion of the presentation of Dr Ibra Ndoye of the Conseil National de Lutte contre le SIDA (SE/CNLS) concerning the experience of planning and implementing combination prevention in Senegal, was the need to 'know your epidemic, know your response', in other words know where the "next 1000 infections might occur". For every key population, a combination of group-specific activities have been developed and implemented, involving a large number of stakeholders from civil society organizations, the private sector and the government.

### Structural factors

17. Strong political leadership, breaking down stigmatization and the role of faith-based organizations have proven crucial. HIV prevalence among pregnant women is decreasing, and so is the number of children born with HIV. Challenges remain though, including measurement of HIV incidence, lack of funding, and relatively few people knowing their HIV status.
18. In Botswana key conditions for scale-up of combination prevention efforts are national engagement, agreed policies, strategies and programmes, resource mobilization and management, accountability and rule of law. Richard K. Matlhare, national coordinator of Botswana's National AIDS Coordinating Agency noted that although progress is being made, Botswana also faces a number of challenges in scaling-up effective programmes: inadequate institutional and human resources, weak community ownership and decreasing external funding.

### Changing norms

19. “The experience of the Stepping Stones programme shows that community mobilization can change norms, lead to open and honest dialogue among communities and thus reduce stigma and discrimination”, said the Salamander Trust’s founder and Director Alice Welbourn. These values, which Stepping Stones works to change, can be very hard to evaluate but are critical to success. Stepping Stones has successfully scaled up due to demand growing organically and because tools are adapted to the communities concerned.

### Galvanizing communities

20. Community involvement in monitoring and evaluation sheds light on programme feasibility, acceptability and sustainability. George Ayala, Executive Director of the Global Forum on MSM & HIV, introduced the Global Men's Health and Rights Survey, which aimed to assess men’s access to HIV prevention services, illustrates this well. This 30-minute global online survey offered in five languages focused on: Pre-exposure prophylaxis knowledge and acceptability, HIV testing, condom, lubricant and treatment access, perceived stigma, homophobia and comfort with provider. Outcomes resulted in a better understanding about the barriers for men to access health services, and how to tailor approaches and match combination prevention activities to the needs of particular segments of the population.

### Knowing the results

21. Monitoring and evaluation remains critical in shaping and focusing combination prevention programmes, according to Rosalia Rodriguez-Garcia of the World Bank, Washington. Effective evaluation supports decision-making by providing transparency on allocation of resources and by showing results and impact. Although monitoring and evaluation of combination prevention is not easy, it can be done by using a mix of tools, such as disease burden analysis and targeted surveillance, to improve efficiency of resource allocation; and programme management analysis, health system integration studies and cost-effectiveness research, leading to improved technical efficiency.

## **BREAK OUT SESSIONS**

22. In addition to plenary sessions, the day also included four breakout sessions covering young people and HIV prevention; political commitment and priority setting in HIV prevention; the role of multiple stakeholders including civil society and the private sector in HIV prevention; and HIV and co-infection among people who inject drugs.

### Reaching Zero New Infections: young people speak out on HIV

23. The UNAIDS Secretariat presented CrowdOutAIDS, a participatory policy project through social media and crowdsourcing. The outcomes of the CrowdOutAIDS process fed into the UNAIDS new generation leadership strategy and led to the creation of youth posts. Recommendations derived from data analysis included mainstreaming HIV in popular culture and strengthening peer education at community level.

24. Given that policy-making is still done in the global arena, a broader definition of combination prevention is needed to include comprehensive sex education. Key messages from the session were that young people have to be central to any prevention effort and must be included at every stage; direct investments must be made in interventions aimed at young people; and scale-up of young people's access to comprehensive sexuality education and youth-friendly sexual and reproductive health services are essential.

Country realities: making tough decisions

25. This session consisted of country case presentations from Moldova, Zimbabwe and Botswana. In Moldova, lessons learned include the importance of coordination among different stakeholders and the need to take into account how structural issues can either hinder or facilitate the implementation of an action plan.
26. In Zimbabwe an investment approach was adopted for allocation of resources for different activities, with analysis of the respective contributions of basic programme activities, critical enablers and areas where the HIV programmes have synergies with wider development sectors. The Investment Framework was an important tool in helping the government make a more realistic costing analysis and in re-prioritizing the national AIDS response.
27. Citing Botswana, the discussion centred on how to finance a response in a country where there is universal access to treatment. Should part of funding come from taxes on alcohol, telecommunication or airport fees, or should it be taken from different ministries at the expense of other priorities? There was consensus that prioritization should be based on a good overview of the epidemic and planners have to identify bottlenecks and gaps.

Mobilizing stakeholders: role of civil society organizations and the private sector in HIV prevention

28. This session considered the experience of mobilizing a range of stakeholders from different sectors in HIV prevention, including civil society, the private sector and government.
29. One key consideration was the involvement of multiple sectors. The experience of Zimbabwe illustrated the importance of involving a variety of stakeholders in combination prevention programmes. For example, programme managers of workplace HIV prevention programmes need to consider where and when to offer services, as employers and workers in the informal sector are only likely to support programmes which do not adversely affect economic activities.
30. A second consideration was the role of country ownership: crucial when it comes to the development, research, roll-out and monitoring and evaluation of new prevention technologies. Civil society organisations were considered key to enhancing country ownership, especially in relation to advocacy, resource mobilisation and in ensuring that prevention programmes are tailor-made, for example to the needs of women and key populations.
31. The session concluded that HIV should be regarded as an effective entry point for enhanced collaboration between governmental and non-governmental organisations.

### HIV and co-infections with viral Hepatitis B & C

32. There are 240 million people living with chronic hepatitis B infection and 170 million with chronic hepatitis C infection. HIV co-infection rates range between 6-26% for hepatitis B and 25-30% for hepatitis C, with much higher rates among people who inject drugs.
33. Despite evidence in support of comprehensive harm reduction programmes for HIV prevention, only approximately half of the countries with people who inject drugs have needle and syringe programmes or opioid substitution programmes. Involving the beneficiaries in the programme design and implementation improves the outcomes in terms of outcomes and sustainability.
34. It is thus essential to improve screening not only in Eastern Europe but also in Africa, expand the implementation of comprehensive harm reduction programmes and the necessary structures, work more with affected populations and reduce the cost of treatment.

### **ISSUES ARISING FROM THE THEMATIC SESSION FOR FOLLOW-UP**

#### **Compressing the divide between early-implementers and those with lagging responses**

35. Across the thematic session, concerns were raised about the need to ensure that major developments in HIV prevention science and best practice are available at scale to all populations in need, with particular concerns that there are on-going gaps in resource-limited settings. Reducing the time span between scientific breakthroughs in prevention strategies and technologies and their application and implementation at country level remains a key challenge.
36. Disparities in the implementation of HIV prevention strategies apply globally, but also within countries. Reasons for the disparities include the unequal burdens of the epidemic itself, compounded by deficits in political will, human resources with the required skill sets, the marginalization of key populations at increased risk of HIV and distortion of programme priorities due to reliance on outside funding. Key issues in addressing these disparities include rectifying data gaps, strengthening response systems including health systems, national ownership, and greater coherence in combination response efforts.

#### Strategic information shaping programme effectiveness

37. 'Know your epidemic, know your response' is a cornerstone of HIV prevention, and it entails not only routine updating of HIV statistics, but also a nuanced understanding of the legal, political and social climate and how that influences risk patterns.<sup>4</sup> In well-organized and well-resourced settings, HIV responses can be continually improved through routine programme impact evaluation together with effective HIV surveillance including estimates of incidence.
38. For HIV prevention strategies to be systematic and evidence-based, well-developed information systems and routinely updated HIV case reporting is needed to inform understanding of where the next 1000 infections will occur.<sup>11</sup> Experiences from certain countries, such as India, demonstrate that this is feasible.<sup>12</sup> HIV surveillance systems are essential, not just to plan HIV

prevention and care programmes, but also to monitor a country's epidemic response and to inform the future response.<sup>13 14</sup>

39. Often prevalence data is used to assess the extent of HIV infection in a given population, but with more people living longer with HIV, prevalence becomes less meaningful as a means to predict where the next 1000 infections will occur. While as yet there is no widely available diagnostic test that can readily identify how recently an HIV infection has occurred (an incidence survey) such a test is under development and refinement, and needs to be made available rapidly, including in resource-limited settings. Currently, well-resourced responses are able to approximate incidence through a combination of analysis of serial prevalence data, high coverage of HIV case reporting, use of 'de-tuned' HIV tests and incidence information from cohort studies. When incidence data cannot be collected, a mode of transmission model developed by UNAIDS can be useful to shed light on epidemic trends in a given population.<sup>15</sup>

#### Stronger health systems

40. Health systems strengthening is a key component of any effort to narrow the north-south divide in HIV prevention. This means more effective governance; organization of services so that they support rather than impede the generation of synergies between often vertically-organized programmes; alignment of health system principles and national development goals to those that underpin the country's HIV response; and better-trained and more motivated health and community workers.<sup>16-18</sup>
41. Low- and middle-income countries can also play a greater role in global health through innovative public-private research and development partnerships and through developing more South-led networks for policy and implementation research.<sup>19</sup> These initiatives should be systematically supported by governments and research institutions from both North and South.

#### Managing funding priorities

42. Reliance on outside funding for HIV prevention activities can distort investment priorities. Stronger leadership from political, business and cultural leaders is needed to drive national HIV prevention responses in the direction that each national epidemic requires<sup>1</sup>. Greater diversification of funding with increased national ownership and more contributions from middle-income countries may help to address funding-related distortions in the HIV response.<sup>2</sup> There needs to be greater political recognition that smart investment in HIV prevention generates a high return for society as a whole.<sup>2</sup>
43. Proven HIV prevention measures targeting key populations are often not implemented due to political or ideological reasons. It is often politically unpopular to allocate resources to marginalized populations. For example, harm reduction measures have proven effective in reducing the risk of HIV transmission among people who inject drugs, but these methods are shunned in many countries, or they must contend with broader drug policies that run counter to harm reduction, including the criminalization of drug use and incarceration of people who inject drugs.<sup>15</sup>

### Rapid implementation of scientific innovation

44. In recent years there has been a wealth of research in support of HIV prevention innovations, such as male medical circumcision, treatment as prevention, vaginal microbicides and pre-exposure prophylactic use of antiretroviral drugs.<sup>6-8 9 10</sup> In order to maximize the benefits of new strategies as they progress from proof of scientific concept to demonstration of public health impact, there is a need to build in systems to reduce unnecessary delay, particularly in resource-limited settings.
45. Although the elimination of mother-to-child transmission by 2015 is an achievable target, there are wide disparities between the 22 priority countries under the Global Plan towards the elimination of new HIV infections among children by 2015 and keeping their mothers alive and with a third of these countries on track to achieve this target, a third needing acceleration to reach the target, and a third currently not on track.<sup>2</sup> For example, South Africa, Zambia and Zimbabwe have seen infections among children decline by 49%, 55% and 45%, respectively, while other counties have made little or no progress at all.

### **The need for scale-up across the prevention-treatment continuum**

46. The use of antiretroviral therapy in preventing the further spread of HIV has been highly successful in certain contexts, e.g. the elimination of mother-to-child transmission in resource-rich settings and the recent study showing that in the controlled setting of a clinical trial among sero-discordant couples, there was a 96% reduction in the risk of HIV transmission where the HIV infected partner received early treatment.<sup>23-27</sup>
47. Whilst widespread expansion of early treatment as prevention is potentially game-changing in the dynamics of the epidemic, achieving this impact in real-world settings has formidable operational challenges.<sup>25 28 29</sup> Even if 90% of a given population enters into the care system and is retained at all stages (diagnosis, timely progression to HIV care, retention in care, long-term adherence to effective antiretroviral therapy), modelling suggest that at the upper limit, viral suppression may only occur in two thirds of cases.<sup>26</sup> Other key considerations include the potential impact of a disproportionate number of new infections from those with acute infections not detectable with standard antibody tests.<sup>25</sup> The extent to which this may compromise treatment as prevention is currently under debate.<sup>30</sup>
48. It is clear that expanding treatment as prevention will require significant improvements in HIV infrastructure and health care human resources.<sup>31</sup> Monitoring of access to care is a particular challenge when the epidemic occurs in marginalized groups who face barriers to access to health services.<sup>26 27</sup>

### **Maximizing opportunities provided by antiretroviral based approaches to prevention**

49. People living with HIV have been instrumental in campaigning for increased access to antiretroviral therapy, and a global movement of solidarity emerged. The social and material conditions under which biomedical interventions are implemented are all the more important in the context of treatment as prevention, not least among marginalized populations.<sup>34</sup> More research is needed into the social context of widespread treatment as prevention as well as studies into its

operational feasibility.<sup>28</sup> There is a large number of studies underway to examine the effectiveness and feasibility of early antiretroviral therapy as prevention.

50. Understanding the impact of treatment as prevention and deciding on optimal use will require input from multiple players including those in the fields of epidemiology, economics, demography, statistics, biology and mathematical modelling.<sup>35</sup> Bringing costs down is an on-going challenge to widening the use of treatment as prevention, both for the drugs themselves and the infrastructure for delivery. Building up a community-based workforce to care for and monitoring stable patients on antiretroviral therapy needs to be further explored.<sup>28</sup>
51. Stronger partnerships with the pharmaceutical industry and with other partners such as academia and governments will need to continue and expand to ensure treatment as prevention programmes are sustainable.<sup>23</sup> Looking beyond treatment as prevention, the challenges of a cure and a vaccine remain unmet.<sup>23</sup>

#### Costs and supplies of antiretroviral drugs

52. The cumulative costs of antiretroviral treatment over time are substantial. A recent estimate of the costs of scaling up treatment to universal access by 2015 (and maintaining coverage thereafter) assumes that substantial reductions in per-capita unit costs of treatment will be achievable over the next ten years, but that nevertheless the cumulative costs of treatment until 2020 will be some US\$ 60 billion<sup>36</sup> As for new antiretroviral drugs, the development pipeline is slowing given an already crowded market and increasing competition from first-line agents as they go off-patent. Maintenance of drug supply chains and availability of impact monitoring tools are also issues of concern.<sup>28</sup>

#### Challenges of long-term adherence and prevention of drug resistance

53. Antiretroviral medications have side effects and there other pharmacological issues can arise such as viral rebound and treatment failure.<sup>28</sup> Drug resistance is an inevitable concern, particularly to drugs used for both disease treatment and prophylaxis.<sup>25 27</sup> There are potential new technological solutions to some of these issues, with research on-going into improvements in drug delivery to aid compliance, such as subcutaneous and intra-vaginal depot formulations that can be periodically replenished and delivery methods that can be controlled by women.<sup>23 25 27</sup>
54. Biomedical interventions such as treatment as prevention also require key behavioural elements to be successful. e.g., to motivate clients to stay in care and maintain high levels of treatment adherence, and are essential not just for efficacy of treatment but also to reduce the risk of drug resistance.<sup>25</sup> It is not known to what extent adherence will vary between those motivated to take antiretroviral medication for their own survival and those whose motivation is to protect sexual partners.

#### Ethical issues around prioritization and allocation of antiretroviral drugs

55. In countries most severely affected by HIV, treatment as prevention raises ethical issue in terms of prioritization of HIV treatment for survival vs. treatment as prevention. This is no small matter, given that almost half of those who need antiretroviral therapy to treat their own HIV infection are currently unable to access it.<sup>27</sup>

56. Some approaches have suggested increasing the evidence with which to make criteria-based informed decisions about prioritization for antiretroviral therapy as prevention, although some groups already take priority under existing guidelines, i.e., people living with HIV who also have acute tuberculosis, and pregnant women regardless of CD4 cell count.<sup>33</sup>

### **How to influence and measure behavioural and social change**

57. Behavioural change programmes include advocacy, communication and social mobilization. They aim to systematically facilitate and accelerate behaviour change and social change related to the underlying drivers of HIV risk and vulnerability.<sup>36</sup>
58. While behaviour change programming has traditionally been thought of principally in terms of social and behaviour change communication, there is increasing evidence that such programmes should be considered as a mix of communication and structural change programmes operating to affect social norms and expectations.<sup>58</sup> For behavioural change programmes to be successful they must be able to blend community participation and use of mass media as well as other avenues of communication. Interventions seem to have greater impact when they have an element of interpersonal contact.<sup>37</sup> In this way behavioural change programmes can act as a catalyst for action at different levels; individual, community and policy.

### Communication

59. Interpersonal communication aims to tackle barriers to healthy behaviour, increases uptake of services, and imbues a greater sense of personal responsibility for health choices. Such interventions can be in the form of individual outreach, small-group discussions, counselling and client-provider interaction.
60. Programmes which reach out to settings where people live and work have shown some advantages. For example, home-based HIV counselling and testing, implemented in Uganda substantially and rapidly increased the rate of testing uptake, and may have also led to less high-risk sexual behaviour among study participants, as well as lower levels of stigma and discrimination.<sup>38</sup> Similarly, a review of workplace-based counselling and testing interventions found that they had better uptake than giving employees a voucher for testing elsewhere.<sup>39</sup>
61. There are now more media channels than ever, from conventional means such as billboards, television, publications and popular culture to new avenues such as social media, mobile phones and the Internet.<sup>40</sup> As well as conveying factual information, mass communications media can be used to promote a supportive environment for HIV prevention by addressing, e.g., stigma and social and gender norms.<sup>36</sup>

### Outcomes of behaviour change programming

62. Behaviour change interventions both interpersonal and media-based, as well as programmes combining elements of both, are widely used.<sup>41</sup> There is evidence that such programmes can improve knowledge and promote behaviour change, but the evidence of the population-based level of influences of such interventions is more mixed.

63. A meta-analysis of 42 studies targeting reduction of sexual risk found that behavioural interventions can reduce the incidence of sexually transmitted infections and HIV through reduced risk behaviour.<sup>42</sup> Similarly, a systematic review and meta-analysis of 19 studies of behavioural interventions targeting people living with HIV found that they can increase condom use particularly among sero-discordant couples.<sup>43</sup>
64. However, a meta-analysis of 46 behavioural interventions in Asia found that whilst overall they were effective for reducing sexual risk, there was also great variance in magnitude of impact. This was partly attributable to study design, and partly to structural factors.<sup>44</sup> A systematic review and meta-analysis of 30 peer education studies found that whilst they positively influenced behavioural outcomes (HIV knowledge, reduced injection equipment sharing, increased condom use) they did not have an impact on incidence of sexually transmitted infection.<sup>45</sup> A systematic review of randomized controlled trials of condom use promotion found no strong evidence of their effectiveness in use of condoms.<sup>46</sup>
65. The Soul City Regional programme comprised programmes in eight countries in southern Africa, using print materials, television dramas and radio shows to convey health promotion messages. An evaluation of the programme found that population exposure to Soul City media was widespread, and overall the project achieved its target of 15% of exposed people making positive changes to their HIV prevention-related behaviour, 20% showing increased knowledge and 15% showing a more positive attitude to those living with HIV.<sup>47</sup> In particular the programme was associated with an increase in testing, increased knowledge about antiretroviral therapy and reduced levels of stigma.
66. HIV prevention messages delivered through multiple channels, including mass media and interventions based in churches, schools and workplaces, as well as interpersonal communication-based programmes, are all credited with helping to reduce the rates of HIV in Zimbabwe.<sup>48</sup> Similarly, a study of faith-based peer-education programme targeted at youth in South Africa found that it increased both condom usage and age of sexual debut<sup>49</sup>.
67. Thailand's much-heralded success in HIV prevention can be attributed to multiple interventions including school-based sex education, street outreach programmes, voluntary and routine HIV counselling and testing and condom promotion, but evidence to support the effectiveness of such interventions among high-risk populations is limited.<sup>50</sup>
68. Programmes targeting behaviour change among young people have had equivocal results. For example, cash transfer programmes have been shown to reduce HIV infection among school-age girls in Malawi, and a review of interventions targeting youth and the community as a whole across sub-Saharan Africa found both reduced reported risky sexual behaviour, other studies have found youth-targeted interventions have had limited impact.<sup>51-55</sup>

### Measuring impact

69. Monitoring the impact of behaviour change programming is essential, to both foster local engagement and ensure that successful programmes are scaled up and replicated.<sup>36</sup> However, behavioural-focused campaigns tend to be weak in evaluation design.<sup>56</sup> Although behavioural interventions do not easily lend

themselves to monitoring compared to, biomedical interventions which can be tested in randomized controlled trials, mathematical models can be used to measure the association between behavioural interventions and reduction in risk behaviour.<sup>57</sup>

70. The comparative cost-effectiveness of behavioural interventions is an under-developed area of research, and while certain interventions are effective in raising awareness, this may not translate into cost-effective impact in behaviour change.<sup>41</sup>

### **Need for continued promotion and support of combination prevention**

71. The massive expansion of HIV treatment in recent years has extended people's lives and dramatically reduced AIDS-related deaths, but we will not be able to treat our way out of this epidemic. For every 3 people who start treatment, 5 more are newly infected.
72. Prevention is still our most powerful tool to achieve the goal of zero new infections, and there is a need to start making faster progress. Prevention is economical, and it works, as shown in numerous examples ranging from the fall in HIV prevalence among young people by more than 25% between 2001 and 2009 in 15 of the highest-burden countries, because of changes in sexual behavior; to reductions in HIV incidence among circumcised men; and to success in applying needle and syringe programmes and opioid substitution therapy to reduce the risk of HIV transmission in drug-use driven epidemics.
73. The importance of prevention was reaffirmed at the High Level Meeting on AIDS in 2011. Three bold prevention targets were formulated in the new Political Declaration on HIV and AIDS: Intensifying Our Efforts to Eliminate HIV and AIDS. Countries have agreed that by 2015, they aim to:
- a) Reduce sexual transmission of HIV by half
  - b) Reduce transmission of HIV among people who inject drugs by half, and
  - c) Eliminate new HIV infections among children and substantially reduce AIDS-related maternal deaths.

### Combination prevention works

74. Prevention works, but it is not a "single bullet" intervention. Only a combination of programmes will yield results. Combination prevention responses must bring together proven, cost-effective biomedical, behavioural and structural interventions tailored to individual epidemics. Moreover, programmes should always suit local needs, be implemented at sufficient scale and be closely monitored for coverage and impact.
75. Stigma, discrimination, gender inequality and criminalization are the greatest threats to HIV prevention. These structural factors hampering effective HIV prevention can only be addressed in the national and local context. Overcoming these barriers is possible only when prevention components are developed with the full engagement of affected communities, and they promote human rights and gender equality.

### Challenges related to combination prevention

76. Combination prevention also brings its own challenges in terms of planning, implementation and evaluation. All of these stages are complex and rely on

harmonizing a mix of multi-faceted, context-specific activities that must work together in order to maximize impact.

77. Countries must move away from a commodity-driven approach, which for too long has dealt with programme elements in isolation. Instead countries must maximize the return on resource investments, especially in the current economically constrained environment where value for money is a priority.
78. A more coordinated and focused HIV response through combination prevention is needed. This entails scaling up combined programmatic approaches that address both short- and long-term impacts, as well as approaches that address both immediate risks and underlying causes of risk.

## **RECOMMENDATIONS**

Based on the discussions from the June 2012 thematic segment, the Board is invited to:

79. Take note of the summary report of the Thematic Session on combination prevention.
80. Call on governments to work with research institutions in public and private sectors, and with civil society, especially people living with and affected by HIV, to identify the key barriers – in particular the human resource and systems weaknesses – to the implementation of advances in HIV science in all settings.
81. Call for all national AIDS responses to be guided by the most up to date evidence of impact and effectiveness, including the use in all settings of validated estimates of HIV incidence through the best available methods
82. Note with concern the impact of the treatment cascade on people living with HIV who are unable to access or, remain in, fully effective treatment and care and call for urgent steps to reduce the barriers and the “drop outs” within the cascade, in order to achieve the outcomes of keeping people alive and stopping new infections.
83. Request UNAIDS, together with research and implementing partners, to refine methods to assess the impact of behaviour-change programming in order to ensure the greatest impact and value-for-money.
84. Take note of the HIV prevention goals and targets adopted in the Political Declaration on HIV and AIDS: Intensifying Our Efforts to Eliminate HIV and AIDS (2011) which calls on governments, programme managers, donors, civil society and all stakeholders to support and extend the reach of efficient, evidence-based combination prevention efforts.

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