# Recommended HIV/AIDS Strategies for Hong Kong (2017-2021)



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## Terms of Reference of the Hong Kong Advisory Council on AIDS

- To keep under review local and international trends and developments relating to HIV infection and AIDS;
- To advise the Government on policy relating to the prevention, care and control of HIV infection and AIDS in Hong Kong; and
- To advise on the co-ordination and monitoring of programmes on the prevention of HIV infection and the provision of services to people with HIV/AIDS in Hong Kong.

## Acronyms

ACA	Hong Kong Advisory Council on AIDS
AEM	AIDS Epidemic Model
AIDS	Acquired Immunodeficiency Syndrome
ART	Anti-retroviral therapy
ATF	AIDS Trust Fund
CDC	Centre for Disease Control and Prevention
CFA	Community Forum on AIDS
DH	Department of Health
EM	Ethnic minorities
FSW	Female sex workers
HA	Hospital Authority
HARiS	HIV and AIDS Response Indicator Survey
HIV	Human Immunodeficiency Virus
HKCASO	Hong Kong Coalition of AIDS Service
LSBE	Life skills-based education
MCFSW	Male clients of female sex workers
MSM	Men who have sex with men
NGO(s)	Non-Governmental Organisation(s)
PEP	Post-exposure prophylaxis
PLHIV	People living with HIV
PrEP	Pre-exposure prophylaxis
PWID	People who inject drugs
SPP	Special Preventive Programme of Department of Health
STI	Sexually Transmitted Infections
TG	Male-to-female transgender
UATP	Universal Antenatal HIV Antibody Testing Programme
UNAIDS	Joint United Nations Programme on HIV/AIDS
WHO	World Health Organization

## **Table of Contents**

Ack	nowle	edgements	1
Terr	ns of	Reference of the Hong Kong Advisory Council on AIDS	3
Acro	onym	5	4
Tabl	le of o	contents	5
Fore	eword		7
1	Exec	cutive Summary	9
2	Basi	s of Current Strategies	10
	А	Global and local HIV situation and future projection	11
	В	Review of current response to HIV/AIDS	13
	С	Scientific developments and recommendations from health / HIV authorities of local relevance	18
	D	Opinions collected from community stakeholders and the public	22
3	Fram	nework of Recommended Strategies	24
		- Guiding Principles	24
		- Vision	24
		- Objectives	24
		- Targets	25
4	Prior	ity Areas for Action	26
	А	Areas to be strengthened	26
		(I) Men who have sex with men (MSM)	26
		(II) People living with HIV (PLHIV)	28
		(III) People who inject drugs (PWID)	29
		(IV) Ethnic minorities (EM)	30
		(V) Male-to-female transgender (TG)	30
		(VI) Female sex workers (FSW) and their male clients (MCFSW)	31

	В	Are	as for further examination	31
		(I)	Pre-exposure prophylaxis (PrEP)	31
		(11)	HIV self-testing (home test)	31
		(   )	Re-testing of HIV for pregnant women	32
	С	Cur	rent response that should be maintained	32
		(I)	Training and education	32
		(11)	Post-exposure prophylaxis	33
		(   )	Collection and use of strategic information	33
		(IV)	Funding and resources	34
		(V)	A supportive environment for prevention and care	34
5	Key pl	ayers	s in delivering AIDS programmes	35
Re	ference	es		37
Ar	nnex I.		gress review of implementation of 11 targets of ommended HIV/AIDS Strategies for Hong Kong (2012-2016)	41
Annex II.			lic Consultation on the Recommended HIV/AIDS Strategies Hong Kong (2017-2021)	44

## Foreword

Since Hong Kong's first case of HIV infection in 1984, our HIV response has undergone a remarkable evolution. The introduction and refinement of effective multidrug therapy has converted HIV infection from a fatal illness to a chronic controllable disease. The tone of public health messages has changed from that of instilling fear to that of promoting acceptance and support. The proactive involvement of community organizations has broadened the coverage and strengthened the scope of HIV programs in meeting the needs of more diverse populations. The setting up of the Advisory Council on AIDS (ACA) and the AIDS Trust Fund (ATF) in 1990s has rendered our overall HIV response much more structured and sustainable.

All these efforts have led to a substantial improvement in access to HIV related services, and are ultimately rewarded by a significant fall in AIDS related deaths. In contrast, however, the number of new infections, particularly among men who have sex with men (MSM), has risen persistently and is cause for grave concern. The situation is not unique to Hong Kong, but is seen in many other countries.

There is therefore no room for complacency. Strategic planning and research, effective service development, collaboration and resource allocation, reliable monitoring and evaluation, remain key to achieving our goals. ACA continues to adopt an objective, integrative and consultative process with a strong public health focus in formulating these Strategies. Timely strategic data is used to delineate the populations at highest risk of infection, and scientific evidence is critically examined to assess the impact of HIV interventions on the control of the HIV epidemic. Conscious effort is made to prioritize the areas of action for specific target populations, and to guide the resources and effort that need to be invested. HIV infection is in many ways unique among the prevalent communicable diseases. The virus has relatively low infectivity and its transmission is by and large not related to environmental hygiene. In Hong Kong, nearly all HIV infection is directly transmitted from person to person through intimate contact. Personal behavior therefore lies at the root of the matter. Strategies to further enhance the quality and quantity of testing, treatment and support in our society are insufficient on their own if we do not recognize the pivotal role of individual choice and activity. And addressing people's thoughts and behavior is certainly neither an easy nor short-term task.

There are as yet no signs that the battle is waning nor that victory is in sight, as the rate of new infection continues to escalate. In fact we are positioned at a critical point where the next few years may determine whether the balance is tipped and the epidemic spins out of hand. We continue to call on the concerted effort of different governmental departments, health care workers, community organizations and the society as a whole to prevent this from happening. Let us all contribute in our various roles, work in harmony with mutual respect, and together bring our shared goals to fruition in the battle against HIV/AIDS.

Dr Susan Fan Chairperson, Hong Kong Advisory Council on AIDS 2017 This document is the fifth set of strategies developed by the Hong Kong Advisory Council on AIDS (ACA) since 1994. The process of its formulation adopted a wide-based approach of engaging different parties, including Community Stakeholders' Consultation and gathering the input of individuals, groups and organizations as well as the general public during the subsequent public consultation.

Hong Kong has fortunately maintained a low HIV infection rate for 3 decades since the first reported case in 1984. The Government, NGOs, the community and other stakeholders work collectively on a comprehensive AIDS programme which encompasses surveillance, health promotion and HIV prevention, treatment and care, and is underpinned by policy-setting and programme funding.

The objectives laid down in the Strategies are in line with the 90-90-90 treatment targets together with the 90% coverage of HIV combination prevention services set by the UNAIDS. ACA recommends nine targets to be achieved by 2020, in the areas of HIV prevention, testing, diagnosis, and treatment. Two primary target populations are specified: MSM and people living with HIV; and four other key populations are identified: people who inject drugs, ethnic minorities, male-to-female transgender and female sex workers and their male clients.

The Strategies set out the priority areas for action, further delineating them as areas to be strengthened, areas for further examination, and current response that should be maintained. Specific measures are proposed and discussed in the light of the current situation, observed developments, and desired outcomes.

Hong Kong is now at a critical point in battling the HIV epidemic. These Strategies provide a framework for various key players to act in tandem for the prevention, care and control of HIV/AIDS.

## 2. Basis of Current Strategies

- To draw up the blueprint for a coordinated and consolidated response to the growing HIV epidemic in the next five years, objective, integrative and consultative processes with a public health oriented approach were adopted. Six inter-related factors were considered during the formulation of the Strategies, namely:
  - (i). Global and local HIV situation and future projection;
  - (ii). Current HIV responses in Hong Kong;
  - (iii). Evidence of scientific developments;
  - (iv). Recommendations of the World Health Organization (WHO), Joint United Nations Programme on HIV/AIDS (UNAIDS) and other international health agencies;
  - (v). Opinions of community stakeholders, and
  - (vi). Opinions from the public consultation.

These are described in greater detail in the following sections.

## A. Global and local HIV situation and future projection

2. The annual number of HIV infections in Hong Kong newly reported to the Department of Health (DH) continued to rise, reaching a cumulative total of 8,410 cases as of end 2016. Infections among men who have sex with men (MSM) dominated the epidemic and accounted for 60% of the reported cases in 2016 (Figure 1)<sup>(1)</sup>. The estimated HIV prevalence (the proportion of a population with HIV infection) was 5.86% in MSM, 18.6% in male-to-female transgender (TG), 1% in people who inject drugs (PWID), 0% in female sex workers (FSW), and 0.1% in the general population<sup>(2)</sup>.

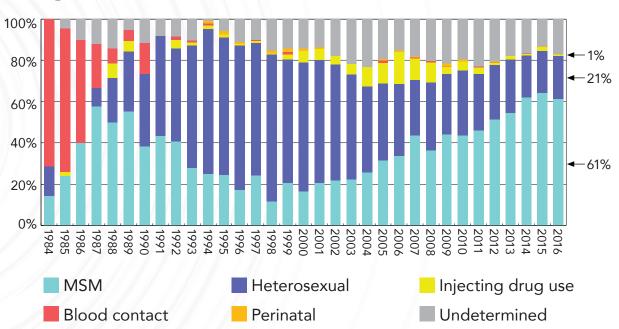


Figure 1. Route of transmission of HIV infection (1984-2016)

3. Using the AIDS Epidemic Model (AEM), the estimated number of people living with HIV (PLHIV) after considering the death cases, those who have left Hong Kong and the undiagnosed infections was 6,500 in 2016. An estimated 360 new MSM infection cases occurred in that year, resulting in the HIV incidence of MSM (the number of new infections per 100 persons in a year) of 1.09 per 100 person-years. If the trend continues, the number of PLHIV could reach 8,800 in 2021. By then, the proportion of new MSM cases will reach 74% among all new infections in that year; and the incidence of MSM will reach 1.64 per 100 person-years.

- 4. Many other countries have also experienced a MSM-predominant epidemic. For example, in the United States, United Kingdom, Australia and Canada and some big cities in Mainland China, transmission through MSM accounted for the majority of the new infections<sup>(3-9)</sup>.
- 5. The MSM epidemic cannot be controlled by increasing the treatment rate alone. The AEM showed that only by increasing the consistent condom use rate from the current 60% to at least 70% by 2020 can the epidemic start to stabilize.
- 6. In Hong Kong, the number of infection among PWID remained low and stable in the past few years<sup>(1-2)</sup>. However, a survey by DH showed that the needle sharing rate among opioid drug users was around 13% in 2015<sup>(10)</sup>. The HIV outbreaks among PWID in Greece and Romania in 2012<sup>(11-12)</sup> and in Indiana, USA in 2015<sup>(13)</sup> remind us of the potential risk of rapid HIV transmission among this community. Continued vigilance of the HIV situation and prevention needs of the PWID community is necessary.
- 7. The annual number of newly reported heterosexual HIV infections remained stable in the past decade, ranging from 117 to 147 cases, but its proportion among newly reported cases dropped from 37% in 2005 to 21% in 2016 due to the high number of reported MSM cases. The female to male ratio increased, however, from 0.5:1 to 0.81:1 in the same period, reflecting an increasing number of female being infected. Among the infected females, most were non-Chinese (African 14%, non-Chinese Asian 31%, Chinese 30%, and others 26% in 2016). It is projected that the number of new heterosexual infections will remain stable in the coming five years.

## **B.** Review of current response to HIV/AIDS

### I. Current HIV responses in Hong Kong

- 8. The Recommended HIV/AIDS Strategies (2012-2016) laid down five priority areas for action, namely (a) HIV prevention; (b) HIV treatment, care and support; (c) a supportive environment; (d) strategically informed and accountable interventions; and (e) collaboration and partnership. Eleven targets were also set out to be attained by the end of the Strategies period.
- 9. During the five years from 2012-2016, the Government, community members, AIDS NGOs and related stakeholders participated actively in implementing the Strategies. Progress was regularly monitored by the ACA Secretariat through conducting and compiling reports on first year, mid-term and end-year reviews <sup>(14-16)</sup>. Overall, the eleven targets were largely achieved (please refer to Annex I).

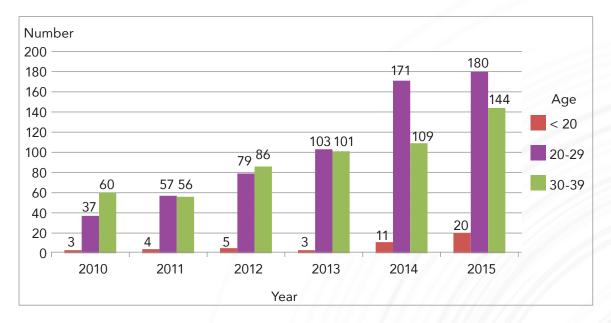
### II. Emerging service needs

10. In recent years, newly emerging challenges have changed clients' needs and their services. The following areas of service needs have been identified by various stakeholders and front-line workers:

## (a) Increasing infections among young MSM who have lower testing rates, condom use, and linkage to care than older MSM

11. In the past five years, among the newly reported cases of HIV infection in MSM, the proportion of those aged 29 or below increased from 24% to 43%. A closer look shows that although the total number of infected MSM increased 2.7 times from 170 in 2010 to 461 in 2015, the increase among young MSM aged 20-29 and below 20 rose disproportionately by 4.9 times and 6.7 times respectively (Figure 2).

## Figure 2. Number of newly reported infected MSM aged 20-39 (2010-2015)



12. As at the end of 2014, the percentage of infected MSM linked to care (ever visited any public HIV clinic) and receiving HIV treatment was lowest in those aged below 20, followed by those aged 20-24 (Table 1).

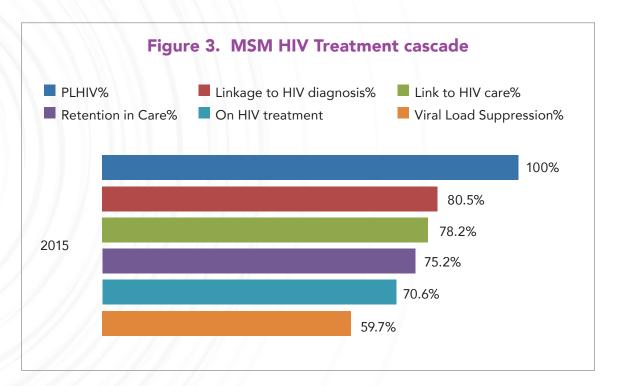
Table 1. Percentage of reported infected MSM linked to care and on HIV treatment in 2015				
	Age			
	≤19	20-24	25-29	≥30
Linked to HIV Care	88.2%	94.0%	96.8%	97.5%
On HIV treatment	64.7%	77.2%	86.5%	88.8%

13. The community-based HIV and AIDS Response Indicator Survey (HARiS) conducted from 2013 to 2015 showed that both the HIV testing rate and condom use rate were consistently lower among young MSM<sup>(10)</sup> (Table 2).

Table 2. Results of HARiS 2015 for MSM					
	Age				
Response indicators	≤19	20-29	30-39	≥40	
HIV testing rates in the past 12 months	42.9%	61.8%	63.6%	66%	
Condom use during last anal sex with regular sex partners	47.1%	72.6%	78.4%	86.4%	
Condom use during last anal sex with non-regular sex partners	68.2%	80.9%	81.2%	91.4%	

## (b) Leakage at the levels of diagnosis, linkage to care and receiving treatment among infected MSM

14. The HIV care cascade is a model that outlines the sequential stages of HIV care that PLHIV go through from initial diagnosis, linkage and retention to HIV care, receiving HIV treatment (anti-retroviral therapy "ART"), to achieving the goal of viral suppression (a very low level of HIV detectable in the body). The model shows the estimated percentages of individuals with HIV who are involved at each stage, and helps to indicate the loss (leakage) at each stage. The model constructed for Hong Kong as at the end of 2015 showed that the largest leakage of 20% was in diagnosing infected MSM. Although linkage to care was good with only 2.3% leakage, there was another 7.6% leakage from linkage to care to receiving HIV treatment (Figure 3).



## (c) Increasing use of instant messaging mobile apps to find sex partners

15. Using one-to-one instant messaging mobile apps to find sex partners and set up ad-hoc small private sex parties at homes and hotels has rapidly gained popularity, making the at-risk populations harder to reach than before. In recent years, NGOs have launched projects of mobile app outreach but the work is labour intensive.

#### (d) Increasing recreational drug use among MSM and TG

16. Drug use, especially before and during sex (chemsex, chemfun) was not uncommon (11%) among MSM in Hong Kong according to a survey conducted by DH<sup>(17)</sup>. Studies have shown that drug use, particularly methamphetamine (ice), is highly associated with HIV infection among MSM<sup>(17-19)</sup>. Drug use can affect both condom use and treatment adherence (receiving medical treatment according to schedule and as instructed by doctors). Furthermore, young MSM drug users are often unwilling to seek help for their HIV and drug problems. Some NGOs are now using assessment tools to assess the drug problems of their clients and to refer them for drug rehabilitation services if deemed necessary.

#### (e) Low HIV testing rates among at risk populations

17. Apart from MSM, low testing rates are also seen in other at risk populations such as TG, female sex workers and their male clients (Table3)<sup>(10,20)</sup>. According to a survey by DH, among female sex workers, the testing rate was found to be lower (61.7%) for venue-recruited participants who mostly worked in one-woman brothels than those recruited through internet (76.2%) who were generally younger and had no fixed working places<sup>(20)</sup>.

Table 3. HIV testing rates within past 12 months				
At risk populations	2013	2014	2015	
Male-to-female transgender (TG)	Not available	50.8%	60.6%	
Female sex workers (FSW)	61.5%	74.7%	73.1%	
Male clients of female sex workers (MCFSW)	29.6%	37.3%	36.5%	

(Source of data: HIV and AIDS Response Indicator Survey, 2013-2015)

#### (f). Late diagnosis and linkage to care among ethnic minorities (EM)

- 18. Non-Chinese Asians constituted 11% of the newly reported HIV infection cases from 2011-2015, disproportionately higher than the 5.0% of non-Chinese Asians among the Hong Kong population<sup>(21)</sup>. They included Indonesian (20%), Filipino (15%), Thai (13%), Nepalese (8%) and Vietnamese (12%). Around half of them were females; and over half were infected outside Hong Kong through heterosexual sex. However, they often presented late with CD4 count (a type of white blood cells in human body, as an indicator of the immune response) less than 200 cell/UL. Africans, who constituted less than 0.4% of Hong Kong population, attributed 2.5% of the newly reported cases in 2015<sup>(2)</sup>.
- Furthermore, in 2015, 67% (10/15) of newly diagnosed opioid drug users who received treatment in methadone clinics were from ethnic minorities. Six were Vietnamese, three were Indian and one was Nepalese. Less than one fourth of the 10 infected EM are receiving HIV care.

## C. Scientific developments and recommendations from health/HIV authorities of local relevance

#### I. HIV treatment

20. Anti-retroviral therapy (ART) has been shown to be able to reduce the chance of HIV transmission in sero-discordant couples (where one partner is HIV negative and the other is HIV positive) by up to 96% through suppressing the viral load (the number of virus in human blood) of the HIV positive partner to a low or undetectable level<sup>(22-25)</sup>. Universal treatment has now been recommended by various overseas authorities (US, UK, WHO)<sup>(26-28)</sup>. In Hong Kong, however, 13.5% of newly reported cases in 2015 were still diagnosed late with rapid progression to AIDS (Annex I, Target 6).

#### II. HIV combination prevention

21. No single HIV prevention strategy will be sufficient to control the HIV epidemic. Provision of HIV Combination Prevention as a package, which includes interpersonal communications, online outreach, condom distribution, HIV testing and counselling and screening for sexually transmitted infections (STI), and complementary support such as treatment for substance abuse to key population has been shown to improve condom use and HIV testing<sup>(29)</sup>. UNAIDS' lastest HIV strategy (2016-2021) recommends combination prevention programmes for key populations and sets a target of 90% coverage by 2020<sup>(4)</sup>.

#### III. HIV services for substance abusers

22. Studies have shown that providing HIV prevention and provider-initiated on-site testing services in drug treatment and rehabilitation service centres could enhance HIV testing among drug users<sup>(30)</sup>. In Hong Kong, however, only Methadone Clinics of the Department of Health offer annual urine HIV test for all opioid drug using attendees. HIV prevention programmes and testing services are not well established in drug treatment and rehabilitation services provided by public hospitals and NGOs.

## IV. Pre-exposure prophylaxis (PrEP)

- 23. Several overseas trials have found that the effectiveness of pre-exposure prophylaxis with antiviral agent to prevent HIV infection in uninfected people ranged from 44% to 86%, depending largely on the risk of infection of the participants and their drug adherence (taking PrEP as scheduled and instructed)<sup>(31-35)</sup>.
- 24. WHO recommended in its latest guidelines and policy brief (2015) that people at substantial risk of HIV infection (i.e. HIV <u>incidence</u> of about 3 per 100 person-years or higher) should be the priority populations to be offered PrEP<sup>(36-37)</sup>. WHO regarded PrEP as an additional prevention choice in a comprehensive package of services including condom use, rather than as a standalone HIV prevention measure<sup>(37)</sup>.
- 25. Taking note of overseas experience so far, a host of factors would have to be considered in deciding whether or not PrEP should be introduced as a public health programme. These factors would include the selection of appropriate users and prescribers, drug adherence<sup>(38-39)</sup>, risk compensation (reduction of safer sex behaviour), cost-effectiveness<sup>(40)</sup>, who to pay, financial sustainability, acceptability to the communities and related stigma effects etc.
- 26. In view of the above, the Scientific Committee on AIDS & STI thoroughly reviewed PrEP in the local context and issued an interim statement in December 2016. The Committee affirmed the role of PrEP as an additional HIV prevention measure for individual protection, and made recommendations on the clinical approach to its use. The Committee also strongly recommended conducting implementation studies in Hong Kong to yield important information on, among others, the appropriate delivery model, ways to reach target recipients and the level of adherence achievable.

## V. Self-testing (home test)

- 27. A controlled trial among MSM showed that those offered self-testing had a higher frequency of HIV testing<sup>(41)</sup>. As of December 2016, four self-test kits available worldwide on the market have been approved by a founding member of the Global Harmonization Task Force (GHTF)<sup>(42)</sup>. A literature review conducted by WHO showed that the accuracy of self-testing could be high with sensitivity and specificity up to 98.9% and 100% respectively, but very much dependent on population and settings<sup>(43)</sup>. Quality of test kits, clarity and accuracy of instructions, linkage to care, personal techniques of specimen collection, cost-effectiveness, false sense of security and testing under coercion remain common concerns for its use. WHO has published new guidelines in 2016 to assist countries in introducing self-testing as part of their national HIV testing strategies<sup>(44)</sup>.
- 28. In Hong Kong, some NGOs are providing counselling and follow up service to self-test users. However, a local study in 2013 showed a low rate (6.1%) of HIV self-testing among MSM<sup>(45)</sup>, reflecting that use of selftest is still uncommon in our community.

## VI. Re-testing of pregnant women at later stage of pregnancy

- 29. Despite the high coverage of Universal Antenatal HIV Antibody Testing Programme (UATP) in Hong Kong (≥ 98%), five infants were found to be infected with HIV from 2009 to 2015. Their mothers were screened negative by UATP during the early antenatal period, and hence were suspected to have been infected in later pregnancy or soon after delivery, thereby unknowingly transmitting the virus to their babies.
- 30. Apart from strengthening education about safer sex and other HIV prevention needs during pregnancy, WHO, the United States Centre for Disease Control and Prevention (CDC), British HIV Association and Taiwan CDC recommended re-testing of pregnant women with at-risk behavior and those originating from areas with high HIV prevalence<sup>(46-48)</sup>.

## VII. Post-exposure prophylaxis (PEP)

31. In a positional statement back in 2006, the Hong Kong Scientific Committee on AIDS and sexually transmitted infections (STI) did not recommend the routine use of PEP for sexual exposure, also known as non-occupational PEP (nPEP)<sup>(49)</sup>. In practice, however, guidelines have been in place for initiation of nPEP in public hospitals over the years. Meanwhile, WHO has issued a series of articles and guidelines on the use of PEP<sup>(50,51)</sup>. Recommendations on the regimen for people of different age groups, and adherence counseling were included. To ensure appropriate and standardized use of nPEP, this issue is worth further deliberation with a view to developing a set of up-to-date and territory-wide professional guidelines.

## D. Opinions collected from community stakeholders and the public

### I. Opinions from Community Stakeholders' Consultation

- 32. An eight-week community stakeholders' consultation was held by the Community Forum on AIDS of ACA from 16 October to 4 December 2015 to collect the views of stakeholders, relevant communities and the general public regarding the next Recommended HIV/AIDS Strategies for Hong Kong (2017-2021).
- 33. Opinions generated from the consultation can be categorised into nine areas<sup>(52)</sup>, namely:
  - (i). Intensify accessibility and availability of combined prevention tools;
  - (ii). Ensure physically, culturally and linguistically appropriate prevention education and promotion for priority populations;
  - (iii). Devise specific interventions for sub-groups of concern within priority populations;
  - (iv). Scale up voluntary counseling and testing (VCT) service to motivate more testing;
  - (v). Strengthen the responsiveness and comprehensiveness of HIV treatment and care and linkage to the system;
  - (vi). Tackle stigma and discrimination against HIV/AIDS and its association with priority populations;
  - (vii). Enhance and push forward public (sex) education;
  - (viii). Review, revise and formulate laws and policies protecting priority populations; and
  - (ix). Mobilize the government and the civil society to create wider changes.
- 34. The recommendations collected were deliberated at the 94<sup>th</sup> and 95<sup>th</sup> ACA meetings. The first draft of the Strategies was produced for another round of Community Stakeholders' Consultation from 25 August 2016 to 15 September 2016. 27 submissions were received, and all the comments were discussed at the 96<sup>th</sup> ACA meeting.

## II. Opinions from public consultation

- 35. An eight-week public consultation was held from 7 November 2016 to 31 December 2016 on the draft Strategies (Annex II). A total of 34 submission of opinions were received from individuals and organizations. The opinions mainly concerned the following ten areas:
  - (i). Inclusion of more key populations and targets;
  - (ii). Legal issues;
  - (iii). Improving the MSM HIV programme;
  - (iv). Improving the care and monitoring of the PLHIV;
  - (v). Enhancing the availability of PrEP and PEP services and information;
  - (vi). Improving access to HIV testing services;
  - (vii). School and public education on HIV, sexual orientation and discrimination;
  - (viii). Funding and resources;
  - (ix). Fostering an anti-discriminatory environment; and
  - (x). Others.

## **3. Framework of Recommended Strategies**

36. These recommended Strategies are framed on the UNAIDS HIV Strategies and the WHO Global Health Sector Strategy on HIV for 2016-2021<sup>(4,53)</sup>, draw reference from the previous ACA Strategies<sup>(54)</sup>, and took into consideration the current HIV situation and response, scientific developments, recommendations from various health authorities and the opinions from stakeholders and the public as set out in previous chapters.

### **Guiding principles**

- 37. The following principles guided the process of Strategies development:
  - (a) Adopting an evidence-based approach;
  - (b) Facilitating community participation;
  - Taking into consideration the acceptability, accessibility and affordability of the strategies to the relevant communities and society at large;
  - (d) Cultivating a supportive and enabling environment; and
  - (e) Prioritizing resources.

#### Vision

38. Zero new infections, zero discrimination, zero AIDS-related deaths

### **Objectives**

- 39. By the end of 2020, to achieve the following objectives:
  - 90% of key populations access HIV combination prevention services;
  - 90% of people living with HIV know their HIV status;
  - 90% of people diagnosed with HIV receive antiretroviral therapy; and
  - 90% of people who are on treatment achieve viral load suppression.

## Targets

40.	By 2020, to	attain the	following	specific	targets:
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1.	(a) $\geq$ 85% and 70% of MSM used condoms in the last anal sex with casual and regular partners respectively
	(b) ≥ 70% of MSM consistently used condom in anal sex with both regular and casual partners
2.	(a) < 10% of People who Inject Drugs (PWID) shared needles with other people in past one month
	(b) < 5% of PWID shared needles with people outside their usual injection partners in the past one month
3.	$\geq$ 90% of MSM, Male-to-Female Transgender (TG), Female Sex Workers (FSW) and PWID have accessed at least one item of HIV combination prevention services in the last one year (such service may include free condoms, HIV testing, free new syringes, HIV prevention messages, or PrEP as appropriate)
4.	<ul> <li>At least 60% of MSM</li> <li>At least 60% of TG</li> <li>At least 90% of FSW</li> <li>At least 90% of PWID</li> <li>received free condoms in the past one year</li> </ul>
5.	80% of MSM, TG, FSW and PWID received HIV test in the past one year and know the result
6.	90% of People Living with HIV (PLHIV) are diagnosed
7.	90% who know they are HIV positive are receiving treatment
8.	90% who are on HIV treatment have suppressed viral load
9.	Zero new infection among locally born children

## 4. Priority Areas for Action

41. Priority areas for action for the coming five years are framed against the objectives of the Strategies and the current service gaps. They are categorized into: (A). Areas to be strengthened; (B). Areas for further examination; and (C). Current response that should be maintained.

## A. Areas to be strengthened

42. The priority areas on which to intensify action comprise two primary target populations and other key populations:

#### Primary target populations:

- (I) men who have sex with men
- (II) people living with HIV

#### Other key populations:

- (III) people who inject drugs
- (IV) ethnic minorities
- (V) male-to-female transgender
- (VI) female sex workers and their male clients

#### (I) Men who have sex with men

43. **Target young MSM intensively:** HIV programmes for MSM should focus on younger members of this community, while sustaining programmes for older MSM. Unprotected sex, alcohol and substance abuse (chemsex and chemfun), low HIV testing rate and lower treatment rate are the key challenges to be tackled. The use of innovative methods, including digital technology for reaching them, are encouraged.

- 44. **Increase condom use:** The AEM has shown that MSM HIV epidemic cannot be controlled by treatment alone. The target of consistent condom use at a level of 70% or above should be achieved by 2020 to stabilize the epidemic. Consistent condom use with all sex partners, including emotional and regular partners, is imperative. The current comparatively higher condom use rate with non-regular partners and commercial partners, including both male sex workers and their male clients, should also be stepped up. Combined prevention services provided as a package, consisting of information dissemination, condom distribution, HIV testing, referral and linkage to HIV care, is recommended.
- 45. **Advocate annual universal HIV testing:** The largest gap in the HIV care cascade is at the level of diagnosis. Annual universal testing for all MSM should become a norm for the community, irrespective of individually assessed risk of infection. New technology and service delivery should be explored to expand HIV testing in both public and private health care sectors as well as community settings.
- 46. **Stop leakage for linkage to and retention in care and treatment:** Greater effort is needed to ensure that every person diagnosed with HIV is promptly and properly referred for care and treatment as soon as diagnosis is made. Specialist assessment, treatment and care should be provided and patients should be moved onto appropriate therapy as soon as they are ready. Effective social support should be offered proactively to facilitate retention in care and drug adherence. The situation of referral and retention in care should be closely monitored (also refer to paragraph 49).
- 47. **Substance abuse:** On the one hand, capacity building in HIV-related service settings should be enhanced to enable staff to identify drug-using MSM, provide relevant services and proper referral. On the other hand, introduction or improvement of HIV prevention and testing services in drug rehabilitation and treatment services under the Hospital Authority and NGOs should be considered. All parties can work towards a greater collaboration between HIV services and drug related services.

48. **Fostering a non-discriminatory environment for the MSM community:** Unimpeded access to HIV information and services is of paramount importance. Front-line staff should be continually trained to raise their awareness of the needs of the gay community. The public should also be educated to foster a non-discriminatory environment. Use of HIV related services should be monitored. In the MSM community, some have voiced out their deep-rooted concerns about stigmatization and discrimination, and some strongly advocate for legal protection of sexual minorities. In this regard, reliable evidence of the impact of relevant legal issues on the MSM HIV epidemic should be kept in view.

## (II) People living with HIV (PLHIV)

- 49. Appropriate treatment, when initiated early and adhered to, not only reduces mortality and morbidity among PLHIV but also gives them the realistic chance of leading a normal life. Early and effective treatment also significantly reduces the risk of further spreading the epidemic. A watertight cascade of care is the ultimate yardstick of success. To this end, it is important to:
  - (a). adopt a multi-specialty, multi-disciplinary team approach which is comprehensive and respects the rights of the clients and their partners;
  - (b). ensure equitable access to high quality, holistic and diverse modes of services which address not only the physical needs but also psychosocial challenges including HIV disclosure faced by PLHIV;
  - (c). continue to adopt the Treatment as Prevention approach as a public health strategy in HIV prevention; follow up all PLHIV upon diagnosis to ensure they are linked to care with appropriate treatment initiated and viral suppression achieved; and proactively encourage partners of PLHIV to receive HIV testing;
  - (d). recognize the susceptibility of young and newly diagnosed PLHIV to defaulting treatment, and step up efforts to retain them in longterm treatment;

- (e). develop expertise and maintain high standards in HIV prevention, care and support services through structured training and education, especially promotion of holistic care among frontline healthcare (also see paragraph 60);
- (f). support antiretroviral drug adherence by counselling, identifying and addressing barriers, and continuous monitoring, through patient engagement and integrated programmmes. Strengthen community support which encourages participation and acceptance and thereby improves treatment adherence;
- (g). strengthen early detection and management of co-infection and co-morbidity, including premature aging and cardiovascular diseases, chronic liver and kidney disease, cancers, etc, which are more commonly seen among PLHIV;
- (h). enhance and sustain laboratory support for early diagnosis of opportunistic infections including multi-drug resistant TB, monitoring of virological response to ART, detection and surveillance of HIV drug resistance;
- (i). strengthen and coordinate care for patients with mental health problem and substance abuse; women with reproductive health and family planning needs; adolescents requiring transition of care.

## (III) People who inject drugs (PWID)

- 50. **Reaching injecting drug users of ethnic minorities:** Linkage to and retention in HIV care for those who are newly diagnosed or are known to be infected should be accorded high priority. Collaboration with other funding bodies could be considered.
- 51. **Recruitment into methadone clinics:** The positive impact of harm reduction on individual and public health should be maximized by encouraging PWID to undergo methadone treatment (including maintenance and detoxification programmes).

- 52. **Avoid needle sharing:** Even if drug injection is unavoidable, PWID should be urged to only use new or sterile syringes and not share needles with anyone. Proper disposal of used syringes by PWID and safe handling by cleaners should be ensured through education and provision of sharpboxes and clamps in venues frequented by PWID. Close monitoring of the HIV situation, injection behaviour, needle sharing and access to clean syringes should be continued.
- 53. **Maintain high HIV testing rate:** This is indispensable both for monitoring the trend in HIV infection and for early referral of infected drug users for care.

### (IV) Ethnic minorities (EM)

54. HIV education, promotion of HIV prevention through condom use and regular HIV testing should be strengthened among non-Chinese Asians and Africans. The services should be culture- and language- sensitive, confidentiality should be emphasized, and access should be made easy and affordable. Linkage to care after diagnosis is indispensable. Expertise in providing EM programmes, such as in-depth training for interpreters on topics of HIV and health should be developed. Publicity of interpretation service should be further enhanced.

### (V) Male-to-female transgender (TG)

55. While the strategies of HIV prevention, treatment and care are similar to those for MSM, more local data on HIV-related behavior and risk factors among the TG population should be collected to refine the HIV response. There is also a need for staff training to provide TG-sensitive services that are distinct from those of MSM.

## (VI) Female sex workers (FSW) and their male clients (MCFSW)

56. The current work on HIV prevention in this community, including condom distribution and education on condom use, should be maintained, while greater effort should be made to reach FSW of ethnic minorities who have less access to HIV prevention and care services. The HIV situation and access to care of FSW and their male clients should be continually monitored. Dialogue with relevant departments on seizure of condoms during law enforcement will continue.

## **B.** Areas for further examination

### (I) Pre-exposure prophylaxis (PrEP)

57. In considering any possible future public health programme of PrEP, scientific evidence must be carefully examined and evaluated. Studies should encompass clinical effectiveness and cost effectiveness under different scenarios of drug adherence in different risk populations, long term clinical and behavioural implications, drug resistance, and ultimately the impact on the HIV epidemic. Apart from considering the outcomes of programmes conducted by other countries, local research and pilot studies targeting young and high risk MSM and sero-discordant couples should be given high priority. The aims will be to gauge the local acceptability and service demand, with a view to developing an appropriate service delivery model. Education and technical support to stakeholders and the community on PrEP should be strengthened in view of the rapid development in this area.

### (II) HIV self-testing (home test)

58. Overseas developments on HIV self-testing and their impact in the local setting have to be kept in view. Frontline AIDS health care workers and NGOs are encouraged to improve the mode of delivery for people who self-test, to provide support in particular for those who tested positive,

and to ensure proper referral for confirmatory test and treatment. Hong Kong currently has no specific legislative regulation of HIV self-test kits. It is noted that the Government plans to introduce statutory control for medical devices including in-vitro diagnostic medical devices (which would also cover HIV self-test kits) to ensure that they are safe, of good quality, and can perform as intended before they are allowed to be placed on the local market. Advice should be made available to the general public for choosing appropriate test kits.

### (III) Re-testing of HIV for pregnant women

59. Further in-depth discussion with stakeholders is called for regarding the need, feasibility and logistics of re-testing pregnant women to eliminate mother-to-child HIV transmission during the latter part of pregnancy.

## C. Current response that should be maintained

## (I) Training and education

Sexual transmission of HIV and STI can be reduced with the avoidance 60. of risky sexual practices such as having sex at an early age, with multiple or casual sex partners, and with concurrent substance abuse. Public and school education regarding HIV knowledge, safer sex behaviour and HIV-related discrimination should be sustained. School-based comprehensive sexuality education using the life skills-based education (LSBE) approach is recommended. Both the breadth and depth of the content of LSBE should be enhanced to include age-appropriate health education related to the knowledge, practical skills as well as values and attitudes on family, relationships, sex and condom use, with focus on reducing risky behaviour. Support for front-line workers to offer counselling to adolescents regarding the above is encouraged. Regular survey among secondary school students for their knowledge of HIV and risky behaviour can be considered.

- 61. While recognizing there are different views on the discussion about sexual orientation and gender identity, current education on respecting people with different sexual orientations should be sustained. Cultivating positive values and attitudes, such as respect and care for others, can help foster sensitivity to individuals (including students) with diverse needs and should be encouraged. Relevant training programmes for educators, parents and supporting staff, especially in supporting the integration of HIV positive students into the school and their peers, should also be offered.
- 62. Continuous training should be provided to medical, nursing and paramedical personnel and students in both the public and private service, including those not directly involved in HIV care, to improve their awareness and knowledge about HIV infection, their sensitivity to the needs of sexual minorities, PLHIV and EM, and to cultivate a non-discriminatory health care environment. Moreover, integration of HIV/ AIDS in the undergraduate and postgraduate curriculum of medical, nursing and allied health profession should be reviewed in all educational institutions.

### (II) Post-exposure prophylaxis

63. Revision of the local recommendations or update of clinical guidelines should be considered by Scientific Committee on AIDS and STI. The use of both occupational and non-occupational use of PEP should also be closely monitored to ensure the effectiveness of the drug regimen in the prevention of HIV and the efficient use of the service.

### (III) Collection and use of strategic information

64. Strategic information should continue to be collected through the surveillance system of the Department of Health. Academia and NGOs are encouraged to conduct regular surveys and research, especially operational research and socio-behavioural studies on key populations with suboptimal access to HIV services, those involved in drug abuse etc. Partnership between local organizations and regional counterparts (e.g. health authorities in Pearl River Delta Region) facilitates information sharing and experience exchange. Regular review and dissemination of information would support timely adjustment of preventive and control measures.

## (IV) Funding and resources

- 65. Infection among MSM is anticipated to continue to dominate the HIV epidemic in the foreseeable future. Resources should be secured for HIV programmes targeting MSM, especially the young subgroup, and for improving condom use, universal testing, linkage to and retention in care, treatment and research. Funding for other populations, on the other hand, should not be neglected. In the face of the ever-rising population of PLHIV who require life-long care, quality patient services should be sustained with adequate funding and resources.
- 66. Apart from the above, the funding mechanism should also maintain a certain degree of flexibility to react promptly to any rapid change of epidemic. Regular review of the funding distribution and the content of AIDS programmes is recommended to ensure resources are allocated to areas most in need and having impact in controlling the HIV epidemic.

## (V) A supportive environment for HIV prevention and care

67. HIV/AIDS is still a stigmatizsing disease globally and in Hong Kong. Infected people have experienced or expressed impaired access to services. It is essential to continue promoting and creating a supportive environment conducive to HIV prevention and care. Communication and education to policy makers and senior staff of different fields including health care, substance abuse and social services should be continued to raise their sensitivity to the needs of PLHIV and to cultivate a non-discriminatory environment. Community stakeholders are encouraged and empowered to engage in strategy development and its implementation. The general public should also be appealed for an accepting attitude for PLHIV and populations who are at risk of HIV infection, with better understanding of their needs.

# 5. Key players in delivering AIDS programmes

68. Hong Kong's AIDS programme is the organized efforts of different groups and people in the society as a whole. The key players working towards the new goals and objectives, and carrying out the priority areas of actions include -

**Government policy bureaux** – The Food and Health Bureau leads the development of the Government's policy on HIV/AIDS. Other bureaux that are also involved include Education Bureau and Security Bureau.

**Advisory Council on AIDS** – ACA advises the Government on policy relating to HIV/AIDS. It also advises on the co-ordination and monitoring of programmes and services on prevention and care of HIV in the territory. It is responsible for formulating the Recommended Strategies.

**AIDS Trust Fund** – ATF plays a crucial role in supporting community based HIV activities, incorporating monitoring and evaluation, and adapting funding support in the face of changing situations and needs.

**Department of Health** – The Centre for Health Protection, through its Special Preventive Programme, monitors the epidemiology and provides technical support to health workers and NGOs. Other DH services closely involved in the HIV programme include Social Hygiene Service, Tuberculosis and Chest Service, Public Health Laboratory Centre, and Methadone Clinics.

**Hospital Authority** – Public hospitals under the Hospital Authority provide inpatient, out-patient and referral services for people living with HIV, and supply surveillance data to DH.

**NGOs and stakeholder communities** – The NGOs play key roles in delivering targeted prevention to and collecting information from hard-to-reach populations. They also participate in capacity building, mobilizing and empowering the vulnerable communities. The HKCASO coordinates the work of some of the AIDS NGOs.

**Healthcare sector** – healthcare providers can play an active role in offering advice on safer sex and risk reduction, providing HIV testing services, reporting cases to DH, and linking patients to receive HIV treatment and care.

**Academia** – the academia can undertake research and studies to improve understanding of the situation and specific risk factors, patterns and interventions. They can also develop curriculum on sexual health in higher education, promote HIV prevention, and conduct joint campaigns to raise awareness on safer sex and substance abuse issues.

**The wider society** – numerous other parties can also contribute to moving the AIDS programme forward, including but not limited to: media, government consultative bodies, district boards, schools, private sector, professional bodies and the philanthropic sector.

# References

- 1. Department of Health, Virtual AIDS Office of Hong Kong. Press meeting presentation (28 Feb 2017). http://www.info.gov.hk/aids/english/surveillance/latest\_stat.htm
- 2. Department of Health, Virtual AIDS Office of Hong Kong. Annual surveillance report on HIV/AIDS 2015. http://www.info.gov.hk/aids/english/surveillance/sur\_report/hiv15.pdf
- 3. World Health Organization. HIV/AIDS. Men who have sex with men. http://www.who.int/hiv/topics/msm/about/en/
- 4. UNAIDS. UNAIDS Strategy 2016-2021. On the Fast-Track to end AIDS. http://www.unaids.org/en/resources/documents/2015/UNAIDS\_PCB37\_15-18
- 5. US CDC. HIV in the United States: At A Glance. http://www.cdc.gov/hiv/statistics/overview/ataglance.html
- 6. Public Health England. National HIV surveillance data tables (2014). https://www.gov.uk/government/statistics/hiv-data-tables
- 7. The Kirby Institute for infection and immunity in society 2014. HIV in Australia. Annual Surveillance Report 2014 Supplement. https://kirby.unsw.edu.au/sites/default/files/hiv/resources/HIVASRsuppl2014\_online.pdf
- Government of Canada. Summary: Estimates of HIV incidence, prevalence and proportion undiagnosed in Canada, 2014
   <u>http://healthycanadians.gc.ca/publications/diseases-conditions-maladies-affections/hiv-aids-estimates-</u>2014-vih-sida-estimations/index-eng.php#a2
- 9. UNAIDS. The Global Report 2013. P.22. http://www.unaids.org/sites/default/files/media\_asset/UNAIDS\_Global\_Report\_2013\_en\_1.pdf
- Department of Health, Virtual AIDS Office of Hong Kong. HARiS HIV and AIDS Response Indicator Survey (2013-2015) http://www.info.gov.hk/aids/english/surveillance/off\_surreport.htm
- European Monitoring Centre for Drugs and Drug Addiction. HIV Outbreak among drug users in Greece. 31 Oct 2012. http://www.emcdda.europa.eu/system/files/publications/752/HIV\_update\_Greece\_2012\_400439.pdf
- 12. European Monitoring Centre for Drugs and Drug Addiction. The evolution of the HIV/AIDS outbreak among IDUs in Romania. October 2012. <u>http://www.emcdda.europa.eu/attachements.cfm/att\_218843\_EN\_02.%20A.%20Botescu%20-%20</u> <u>The%20evolution%20of%20the%20HIV-AIDS%20outbreak%20among%20IDUs%20in%20Romania.pdf</u>
- 13. US CDC. Morbidity and Mortality Weekly Report (MMWR). 1 May 2015. https://www.cdc.gov/mmwr/preview/mmwrhtml/mm6416a4.htm
- Review on the first year implementation of the Recommended HIV/AIDS Strategies for Hong Kong 2012 2016.
   http://www.aca.gov.hk/publication/1stReview.pdf
- Mid-term review of the implementation of the Recommended HIV/AIDS Strategies for Hong Kong 2012-2016. http://www.aca.gov.hk/publication/2ndReview-e.pdf

- End-term review of the implementation of the Recommended HIV/AIDS Strategies for Hong Kong 2012-2016. http://www.aca.gov.hk/
- Department of Health, Virtual AIDS Office of Hong Kong. HARiS HIV and AIDS Response Indicator Survey 2014 for Men who have Sex with Men 03/2015 http://www.info.gov.hk/aids/english/surveillance/sur\_report/oth\_rep2015\_msm\_e.pdf
- 18. Khan MR1, Berger A, Hemberg J, O'Neill A, Dyer TP, Smyrk K. Non-injection and injection drug use and STI/HIV risk in the United States: the degree to which sexual risk behaviors versus sex with an STI-infected partner account for infection transmission among drug users. AIDS Behav. 2013 Mar; 17(3): 1185–1194. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3923515/
- Campbell AN1, Tross S, Calsyn DA. Substance use disorders and HIV/AIDS prevention and treatment intervention: research and practice considerations. Soc Work Public Health. 2013;28(3-4):333-48. doi: 10.1080/19371918.2013.774665. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3694750/
- 20. Department of Health, Virtual AIDS Office of Hong Kong. HARiS HIV and AIDS Response Indicator Survey 2013 for Female sex workers http://www.info.gov.hk/aids/english/surveillance/sur\_report/oth\_rep2014\_fsw\_e.pdf
- Hong Kong Census and Statistic Department. 2011 Population Census. Summary Results. Table 8. Population by Nationality. http://www.statistics.gov.hk/pub/B11200552011XXXXB0100.pdf
- 22. Rebecca F Baggaley, Richard G White, T Déirdre Hollingsworth, and Marie-Claude Boily. Epidemiology. Heterosexual HIV-1 infectiousness and antiretroviral use: Systematic review of prospective studies of discordant couples. 2013 Jan; 24(1): 110–121. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4312663/
- 23. Oldenburg CE., Barnighausen T., Tanser F., Iwuji CC., Gruttola VD., Seage GR., Mimiaga MJ., Mayer KH., Pillay D., and Harling G. Clinical Infectious Diseases. Antiretroviral therapy to prevent HIV acquisition in serodiscordant couples in a hyperendemic community in rural South Africa. 2016. http://cid.oxfordjournals.org/content/early/2016/06/25/cid.ciw335.full.pdf
- 24. Jia Z1, Mao Y, Zhang F, Ruan Y, Ma Y, Li J, Guo W, Liu E, Dou Z, Zhao Y, Wang L, Li Q, Xie P, Tang H, Han J, Jin X, Xu J, Xiong R, Zhao D, Li P, Wang X, Wang L, Qing Q, Ding Z, Chen RY,25.Liu Z, Shao Y. Lancet. Antiretroviral therapy to prevent HIV transmission in serodiscordant couples in China (2003-11): a national observational cohort study. 2013 Oct 5;382(9899):1195-203. doi: 10.1016/S0140-6736(12)61898-4 http://www.ncbi.nlm.nih.gov/pubmed/23206835
- 25. The New England Journal of Medicine. Prevention of HIV-1 Infection with Early Antiretroviral TherapyVolume 365(6), 11 August 2011, p 493–505. http://ovidsp.tx.ovid.com/sp-3.18.0b/ovidweb.cgi?Link+Set+Ref=00126334-201506010-00014/00006024\_2011\_365\_493\_cohen\_antiretroviral\_%7c00126334-201506010-00014%23xpointer%28id%28R1-14%29%29%7c10%7c%7covftdb%7c00006024-201108110-00005&P=73&S=GMKGFPINDGDDPCPKNCJKOAJCIACPAA00&WebLinkReturn=Full+Text%3dL%7cS.sh.22.23%7c0%7c00126334-201506010-00014
- 26. US Department of Health and Human Services. Guidelines for the Use of Antiretroviral Agents in HIV-1-Infected Adults and Adolescents. Januray 2016. https://aidsinfo.nih.gov/contentfiles/lvguidelines/adultandadolescentgl.pdf
- 27. UK British HIV Association. Treatment of HIV-1-positive adults with antiretroviral therapy (2015) http://bhiva.org/documents/Guidelines/Treatment/2015/2015-treatment-guidelines.pdf

- 28. World Health Organization. Guideline on when to start antiretroviral therapy and on pre-exposure prophylaxis for HIV. September 2015. http://apps.who.int/iris/bitstream/10665/186275/1/9789241509565\_eng.pdf
- 29. Firestone R, Rivas J, Lungo S, Cabrera A, Ruether S, Wheeler J, and Vu L. Effectiveness of a combination prevention strategy for HIV risk reduction with men who have sex with men in Central America: a mid-term evaluation. BMC Public Health. 2014. 14:1244 DOI: 10.1186/1471-2458-14-1244 http://bmcpublichealth.biomedcentral.com/articles/10.1186/1471-2458-14-1244
- Metsch LR1, Feaster DJ, Gooden L, Matheson T, Mandler RN, Haynes L, Tross S, Kyle T, Gallup D, Kosinski AS, Douaihy A, Schackman BR, Das M, Lindblad R, Erickson S, Korthuis PT, Martino S, Sorensen JL, Szapocznik J, Walensky R, Branson B, Colfax GN. Implementing rapid HIV testing with or without risk-reduction counseling in drug treatment centers: results of a randomized trial. Am J Public Health. 2012 Jun;102(6):1160-7. doi: 10.2105/AJPH.2011.300460. Epub 2012 Apr 19. http://www.ncbi.nlm.nih.gov/pubmed/22515871
- 31. Grant RM, Lama JR, Anderson PL, et al. (December 2010). "Preexposure chemoprophylaxis for HIV prevention in men who have sex with men". New England Journal of Medicine 363 (27): 2587–99. doi:10.1056/NEJMoa1011205 http://www.nejm.org/doi/full/10.1056/NEJMoa1011205

32. Kashuba A, et al. Pre-exposure prophylaxis for HIV prevention: how to predict success. Lancet 2012, 379:2409-11.

http://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(11)61852-7.pdf

- 33. Choopanya K, Martin M, et al. Antiretroviral prophylaxis for HIV infection in injecting drug users in Bangkok, Thailand (the Bangkok Tenofovir Study): a randomised, double-blind, placebo-controlled phase 3 trial. The Lancet 381 (9883): 2083–2090. doi:10.1016/S0140-6736(13)61127-7. PMID 23769234. http://www.sciencedirect.com/science/article/pii/S0140673613611277
- 34. Molina J-M, et al. On demand preexposure prophylaxis in men at high risk for HIV-1 infectcion. N Engl J Med 2015;373:23:2237-46 http://www.nejm.org/doi/full/10.1056/NEJMoa1506273
- 35. McCormack S, et al. Pre-exposure prophylaxis to prevent the acquisition of HIV-1 infection (PROUD): effectiveness results from the pilot phase of a pragmatic open-label randomised trial Lancet 2016;387:53-60 http://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(15)00056-2.pdf
- 36. WHO. Guideline on when to start antiretroviral therapy and on pre-exposure prophylaxis for HIV. September 2015. <u>http://www.who.int/hiv/pub/guidelines/earlyrelease-arv/en/</u>
- WHO. Policy brief. WHO expands recommendation on oral pre-exposure prophylaxis of HIV infection (PrEP). http://apps.who.int/iris/bitstream/10665/197906/1/WHO\_HIV\_2015.48\_eng.pdf?ua=1
- 38. Dimitrov DT, MÂsse BR, Donnell D. PrEP adherence patterns strongly impact individual HIV risk and observed efficacy in randomized clinical trials. J Acquir Immune Defic Syndr. 2016 Mar 16. https://www.ncbi.nlm.nih.gov/pubmed/26990823
- Amico KR, Mehrotra M, Avelino-Silva VI, McMahan V, Veloso VG, Anderson P, Guanira J, Grant R; iPrEx Study Team. Self-reported Recent PrEP Dosing and Drug Detection in an Open Label PrEP Study. AIDS Behav. 2016 Mar 18. https://www.ncbi.nlm.nih.gov/pubmed/26992393
- 40. ECDC Meeting Report. Pre-Exposure Prophylaxis in the EU/EEA Challenges and Opportunities. Stockholm 27-28 April 2016.
   <u>https://www.researchgate.net/publication/303438065\_Pre-Exposure\_Prophylaxis\_in\_the\_EUEEA\_Challenges\_and\_Opportunities</u>

- Katz D, Golden M, Hughes J, Farquhar C, Stekler J. HIV self-testing increased HIV testing frequency among high-risk men who have sex with men: a randomized controlled trial. Presentation at the 8th International AIDS Society Conference, Vancouver, Canada, 19-22 July 2015. http://pag.ias2015.org/PAGMaterial/PPT/669\_12052/Katz\_IAS2015\_Slides%20v3.pptx
- 42. WHO/UNITAID. Technology Landscape: HIV rapid diagnostic tests for self-testing. 2nd Edition. 1 July 2016. http://unitaid.org/images/marketdynamics/publications/UNITAID\_HIV\_rapid\_diagnostic\_tests\_for\_self-testing.pdf
- 43. WHO. Consideration on the accuracy and reliability of HIV self-testing: a literature review. December 2015. http://www.who.int/hiv/pub/posters/Accuracy\_ICASA2015\_poster.pdf?ua=1
- WHO. Guidelines on HIV self-testing and partner notification Supplement to consolidated guidelines on HIV testing services. December 2016.
   <a href="http://www.who.int/hiv/pub/vct/hiv-self-testing-guidelines/en/">http://www.who.int/hiv/pub/vct/hiv-self-testing-guidelines/en/</a>
- 45. Wong HT, Tam HY, Chan DP, Lee SS. Usage and Acceptability of HIV Self-testing in Men who have Sex with Men in Hong Kong. AIDS Behav. 2014 Aug 22. http://www.ncbi.nlm.nih.gov/pubmed/25145608
- World Health Organization. Consolidated guidelines on HIV testing services 2015. 5Cs: Consent, confidentiality, counseling, correct results and connection.
   <a href="http://apps.who.int/iris/bitstream/10665/179870/1/9789241508926\_eng.pdf?ua=1&ua=1">http://apps.who.int/iris/bitstream/10665/179870/1/9789241508926\_eng.pdf?ua=1&ua=1</a>
- 47. British HIV Association. A de Ruiter, D Mercey, J Anderson, et al. British HIV Association and Children's HIV Association guidelines for the management of HIV infection in pregnant women 2008. http://onlinelibrary.wiley.com/doi/10.1111/j.1468-1293.2008.00619.x/epdf
- 48. Bernard BM, Handsfield HH, Lampe MA, et al. Revised recommendations for HIV testing of adults, adolescents, and pregnant Women in health-care settings. MMWR Recommendations and Reports. Sep 2006;55(RR-14)1-17. http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5514a1.htm
- 49. Scientific Committee on AIDS and STI (SCAS). Centre for Health Protection. Department of Health. Using Antiretrovirals for Post Exposure Prophylaxis against HIV in the Non-occupational Setting Position Statement of the SCAS. March 2006.

<u>http://www.chp.gov.hk/files/pdf/using\_antiretrovirals\_for\_pep\_against\_hiv\_in\_the\_non-occupational\_setting-position\_statement\_of\_the\_scas\_r.pdf</u>

50. WHO. Guidelines on post-exposure prophylaxis for HIV and the use of co-trimoxazole prophylaxis for HIVrelated infections among adults, adolescents and children - Recommendations for a public health approach - December 2014 supplement to the 2013 consolidated ARV guidelines. Dec 2014.

http://www.who.int/hiv/pub/guidelines/arv2013/arvs2013upplement\_dec2014/en/

51. Rachel Baggaley, Meg Doherty, Andrew Ball, Nathan Ford and Gottfried Hirnschall. The strategic use of antiretrovirals to prevent HIV infection: a converging agenda. Clinical Infectious Diseases supplement on HIV postexposure prophylaxis. Clin Infect Dis [Internet]. 2015 May; 60 (suppl 3): S159-S160 doi:10.1093/cid/civ091. Available from:

http://www.who.int/hiv/pub/prophylaxis/pep-supplement-01/en/

52. Community Forum on AIDS; Hong Kong Coalition of AIDS Service Organizations. Report of the Community Stakeholders' Consultation for the Development of Recommended HIV/AIDS Strategies for Hong Kong 2017-2021. March 2016.

http://www.aca.gov.hk

- 53. World Health Organizations. Global health sector strategy on HIV, 2016-2021. June 2016. http://www.who.int/hiv/strategy2016-2021/ghss-hiv/en/
- 54. The Hong Kong Advisory Council on AIDs. Hong Kong AIDS Strategies Main Documents. http://www.aca.gov.hk/english/strategies/hk\_strategies.html

# Table 1. Progress review of implementation of 11 targets ofRecommended HIV/AIDS Strategies for Hong Kong (2012-2016)

			Targets	First year review (2013)	Mid-term review (2014)	End-term review (2016)
Beł	naviours					
1.	Expand testing coverage					
	<u>Receive</u>	HIV test in the last year and <u>know</u> the result				
	(a) Me	en who have sex with men	≥50%	54% <sup>e</sup>	58.6% <sup>i</sup>	<b>59.4%</b> <sup>m</sup>
	(b) Ma	le clients of female sex workers	≥25%	26% <sup>e</sup>	35.6% <sup>i</sup>	32.6% <sup>m</sup>
	(c) Fer	male sex workers	≥50%	<b>49%</b> ª	67.3% <sup>i</sup>	65.2% <sup>m</sup>
	(d) Op	vioid dependent persons	≥80%	<b>76%</b> <sup>b</sup>	<u>78%</u> į	<u>67.9%</u> -
2.	Ensure regular condom use					
	(a) MS	M use condoms in the last anal sex with :				
		- casual partners	≥80%	80% <sup>e</sup>	81% <sup>i</sup>	81% <sup>m</sup>
		- emotional / regular sex partners	≥70%	<u>64%</u> / 77% <sup>e</sup>	<u>65%</u> / 70% <sup>i</sup>	<u>66%</u> / 74%
		terosexual men use condom in the last ginal sex with				
		- commercial partners	≥80%	89% <sup>e</sup>	88% <sup>i</sup>	82% <sup>m</sup>
	(c) FSV	W use condoms in the last vaginal sex with				
		- regular clients	≥80%	96%ª	99% <sup>i</sup>	<b>97%</b> <sup>m</sup>
3.	Maintai	n low needle sharing				
	Injecting drug users share needles outside their usual injection partners in the <u>last 1 month</u> (revised)		≤10%	0.5% <sup>b</sup>	0.8% <sup>j</sup> - 3.8% <sup>i</sup>	3.7% <sup>m</sup>

## Table 1. Progress review of implementation of 11 targets of Recommended HIV/AIDS Strategies for Hong Kong (2012-2016) (cont'd)

		Targets	First year review (2013)	Mid-term review (2014)	End-term review (2016)			
Un	lerlying vulnerability							
4.	Condoms as a norm among vulnerable communities for practice of safer sex in all places where risk behaviours might occur	Widely accepted	83% - 97% <sup>b,c,h</sup>	58.5% - 99.4% <sup>i</sup>	60.0% - 84.9% <sup>n</sup>			
Cov	verage of HIV related services							
5.	Achieve high coverage of HIV prevention messages or materials including condoms in the last year							
	(a) MSM	>75%	57% - 81% <sup>c</sup>	81.4% <sup>i</sup>	85.6% <sup>m</sup>			
	(b) Male clients of FSW	>50%	7 [ + ] / ]	76%% <sup>i</sup>	69.4% <sup>m</sup>			
	(c) FSW	>95%	53% - 99%ª	<u>88.7%</u> i	<u>92.9%</u> m			
	(d) Opioid dependent persons	>95%	94% <sup>b</sup>	<b>98%</b> <sup>j</sup>	<b>99%</b> <sup>m</sup>			
6.	Expand early detection							
	Newly reported HIV cases progress to AIDS within 3 months of diagnosis	≤15%	13% <sup>f</sup>	<u>16.1%</u> <sup>k</sup>	<u>13.5%</u> °			
7.	Provide universal ART access							
	Adults and children with advanced infection received ART	≥95%	91.3% - 100% <sup>9</sup>	99.1% <sup>1</sup>	97.9% <sup>ı</sup>			
8.	Give life skills to youth							
	Students in secondary schools have received life skills-based HIV education at or before the age of 15	≥50%	81% <sup>d</sup>					

### Table 1. Progress review of implementation of 11 targets of Recommended HIV/AIDS Strategies for Hong Kong (2012-2016) (cont'd)

	First year review (2013)	Mid-term review (2014)	End-term review (2016)
tainable resources and trained personnel			
Mobilize substantially more financial resources for proven effective interventions implemented by NGO beyond the current levels of provision	2013/14, ATF grant the 5 high risk grou	In 2014/15, ATF has granted <b>\$30,233,000</b> to the 5 priority communities <sup>p</sup> .	
Regularize sensitization and skill-building training for teachers, social workers, healthcare workers, disciplined forces, and other NGO workers to ensure equal access to HIV-related services by their service clients	In progress	In progress	In progress
lizing results-based implementation			
Develop, implement and act on a common set of indicators for monitoring the local AIDS response for key populations	First survey from Apr - Aug 2013	Second survey from Apr to Aug 2014	Third survey from Apr to Aug 2015
	Mobilize substantially more financial resources for proven effective interventions implemented by NGO beyond the current levels of provision Regularize sensitization and skill-building training for teachers, social workers, healthcare workers, disciplined forces, and other NGO workers to ensure equal access to HIV-related services by their service clients <b>lizing results-based implementation</b> Develop, implement and act on a common set of indicators for monitoring the local AIDS	(2013) tainable resources and trained personnel Mobilize substantially more financial resources for proven effective interventions implemented by NGO beyond the current levels of provision A sum of \$300 million A sum of \$350 million A sum of \$350 million A sum of \$350 million ATF in the end Regularize sensitization and skill-building training for teachers, social workers, healthcare workers, disciplined forces, and other NGO workers to ensure equal access to HIV-related services by their service clients Izing results-based implementation Develop, implement and act on a common set of indicators for monitoring the local AIDS	tainable resources and trained personnel(2013)(2014)Mobilize substantially more financial resources for proven effective interventions implemented by NGO beyond the current levels of provisionDuring the 3 year period of 2011/12 to 2013/14, ATF granted \$68,078,000 to the 5 high risk groups, with an average of \$22,693,000 per year <sup>p</sup> .Regularize sensitization and skill-building training for teachers, social workers, healthcare workers disciplined forces, and other NGO workers to ensure equal access to HIV-related services by their service clientsIn progressIn progressIn progressSecond survey from Apr - Aug

#### Remarks:

- a. Community-based Risk behavioural and Seroprevalence Survey for Female Sex Workers in Hong Kong (CRiSP) 2009 (Department of Health)
- b. Street-recruited Addicts Survey on AIDS Awareness and Risk Behaviour 2012 (The Society for The AID and Rehabilitation of Drug Abusers)
- c. HIV Prevalence and Risk behavioural Survey of Men who have sex with men in Hong Kong (PRiSM) 2011 (Department of Health)
- d. Survey of Life Skills-based Education on HIV/AIDS at Junior Level of Secondary Schools in Hong Kong 2013
- e. HIV and AIDS Response Indicator Survey (HARiS) 2013 (Department of Health)
- f. Reported HIV/AIDS Statistics 2012 (Department of Health)
- g. Third Set of Core Indicators for Monitoring Hong Kong AIDS Programmes
- h. Behavioral Surveillance Surveys of the Male clients of female sex workers population in Hong Kong 2010

- i. HIV and AIDS Response Indicator Survey (HARiS) 2014 (Department of Health)
- j. Street-recruited Addicts Survey on AIDS Awareness and Risk Behaviour 2013 (The Society for The AID and Rehabilitation of Drug Abusers)
- k. Reported HIV/AIDS Statistics 2013 (Department of Health)
- I. Cohort Surveillance system (as of mid-2015) (Department of Health)
- m. HIV and AIDS Response Indicator Survey (HARiS) 2015 (Department of Health)
- n. Street-recruited Addicts Survey on AIDS Awareness and Risk Behaviour 2015 (The Society for The AID and Rehabilitation of Drug Abusers)
- o. Reported HIV/AIDS Statistics 2015 (Department of Health)
- p. Official website of AIDS Trust Fund

# Annex II

#### Public Consultation on the Recommended HIV/AIDS Strategies for Hong Kong (2017-2021)

A public consultation for the second draft of Recommended HIV/AIDs Strategies for Hong Kong (2017-2021) was held from 7 November 2016 to 31 December 2016.

During the period, publicity was conducted through Chinese and English newspapers (both paper and online versions), press release, facebook, government and non-governmental websites.

In addition, more than 160 invitation letter or emails were sent to various organisations and institutions, including:

- 21 AIDS NGOs;
- 16 NGOs that provide services for the target populations
- 36 other NGOs that had applied for funding for HIV programmes in the past 5 years;
- 4 Advisory Groups;
- 10 Tertiary education institutions\*;
- 6 professional bodies (medical, dental and nursing);
- 4 units undern the Hospital Authority;
- 14 Governmental departments;
- 14 units under the Department of Health; and
- 11 private hospitals.

\*Several invitations might be sent to different units/faculties under the same institution.

By the end of the consultation period, a total of 34 written submissions of opinions were received, with 16 from organizations or institutions and 18 from individuals.

