NATIONAL GAY MEN'S SYPHILIS ACTION PLAN

NOVEMBER 2009

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EXECUTIVE SUMMARY

- In September 2008, the Blood Borne Virus and STIs Subcommittee (BBVSS) of the Australian Population Health Development Principal Committee committed to develop a National Gay Men's Syphilis Action Plan (NGMSAP).
- NGMSAP objectives are to:
  - ⇨ Develop a nationally consistent approach to reducing the incidence of syphilis, amongst gay men, while allowing jurisdictions to develop tailored approaches specific to their individual needs;
  - ⇨ Consider current gaps in policy and program development and implementation, including in the research base; and
  - ⇨ Describe a coordinated strategy in relation to reducing the incidence of syphilis.
- This action was taken in response to significantly increased rates of syphilis among gay men in a number of Australian and comparable overseas jurisdictions since the late 1990's.
- There is evidence, in many jurisdictions, of a particular association between syphilis and gay men who participate in highly sexually active subcultures, however all sexually active gay men are at risk.
- Syphilis infections can be accompanied by significant health burdens as untreated cases may progress to tertiary syphilis and the presence of syphilis lesions facilitate HIV transmission.
- There have been considerable efforts to control syphilis among Australian gay men, over several years. These efforts have resulted in increases in testing and protective sexual behaviours but not a change in apparent incidence.
- There is currently no evidence – nationally or internationally - of a sustained decline in notifications resulting from syphilis control measures undertaken in metropolitan communities of gay men in the last decade.
- The conclusion drawn was that effective control was unlikely to be delivered by a scale increase in the current programmatic response.
- The NGMSAP was developed via a three phase approach:
  - ⇨ Phase A: Determining the variables/targets to underpin the shared goal
  - ⇨ Phase B: Developing/Implementing the program response
  - ⇨ Phase C: Evaluation
- Phase A determined the variables and targets required to underpin the shared goal of reducing the incidence of syphilis among gay men.
- Detailed mathematical modelling was carried out to investigate the expected epidemiological impact of a large number of potential interventions. This was complemented by social research on the acceptability of interventions among gay men. The Phase A Report is attached as the Technical Appendix to this Plan.
- A technical workshop was held on 25 June 2009 to review the Phase A background modelling and social research together with summaries of international and local responses to syphilis epidemics carried out thus far. This process established the recommendations for the NGMSAP, which are as follows:

Priority 1

- Gay men are encouraged to test for syphilis as it pertains to their level of risk: The more sexually active the individual gay man then the more often he should be tested.
- For sexually-active gay men in general, testing for syphilis should be linked to other routine testing.
- ***Ongoing screening for syphilis should be routine with HIV management and testing*** (as opt-out strategies): Sexually-active HIV-infected men should be tested for syphilis during routine check-up, usually every 3 months.
- Screening for syphilis should also be conducted alongside every HIV test for sexually-active gay men not previously diagnosed with HIV.
- In addition, as a minimum, ***men who have more than 20 partners per 6 months should be tested for syphilis at least twice per year***.
- Testing sexually active gay men who have never previously been tested is also important.
- These interventions must be on-going and will likely require increased clinical capacity.
- Implementation should also consider improving access to testing through different types of tests and testing locations, and extending operating hours.

Priority 2

- ***Easier ways for notifying sexual partners discreetly*** should be created.
- The goal is to quantifiably observe an ***increase in the rate of partner notification***.
- To decrease stigma, ***increased education about syphilis*** is required.
- Mechanisms for partner notification should consider patient-led, clinician-led, and centralised notification models that use a variety of means and technologies.

Supporting priorities

- There is general agreement that the proposed ***syphilis chemoprophylaxis*** ('syphilaxis') trial should proceed as soon as is practical. It is recommended that ***possible Australian funding sources for the trial*** be investigated.
- ***Promoting condom use to maintain current high usage levels remains critical. Condom use and number of sexual partners*** are also important concepts in education for gay men in assessing their level of risk and relative need for, and frequency of, testing.
- Consideration should be given to ***locating highly sexually active gay men***, who have greater than 20 partners per 6 months, for the purposes of targeting interventions.
- Care should be taken for protecting the confidentiality of the venues and men involved.

Non-priorities

- The participants at the technical workshop also considered the expected effectiveness and acceptability of other possible interventions, including reductions in the number of sexual partners and mass treatment. Based on the evidence provided it was determined that interventions associated with these approaches should not be priorities of the NGMSAP.

Expected impact of interventions

- The expected impact of interventions based on the recommendations in Priorities 1 and 2 on annual syphilis diagnoses are shown in Figure 1 below.
- The implementation of interventions based on the recommendations is forecasted to rapidly reduce the number of syphilis diagnoses after an initial spike (due to the increase in testing).

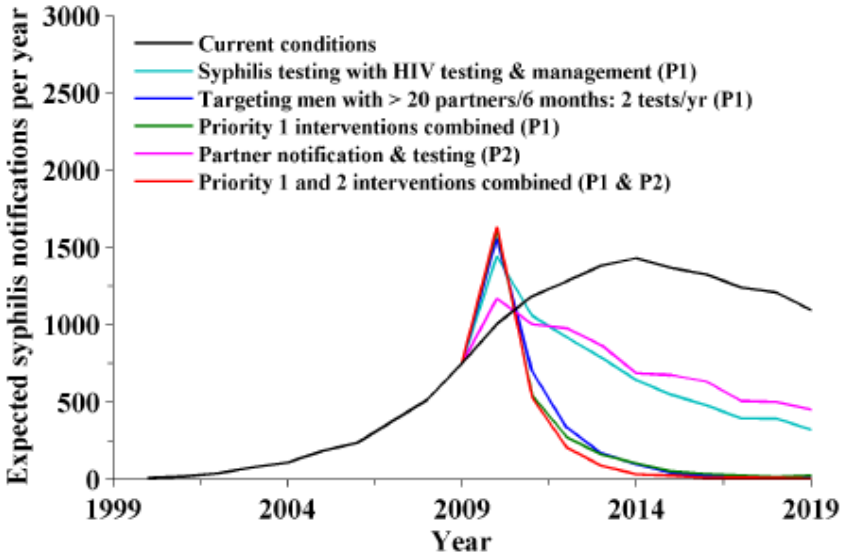


Figure Caption: Simulations showing the expected syphilis notifications associated with implementation of interventions listed in Priorities 1 and 2. For each intervention the percentage of men who never get tested is reduced from 15% to 10% (Priority 1) and rates of condom use are maintained (Secondary Priority 1). The light blue curve shows the expected impact of incorporating syphilis testing with HIV testing and management if 90% of diagnosed HIV-infected men are tested 4 times per year and if all HIV tests of men not previously diagnosed with HIV are accompanied with a syphilis test (Priority 1). The dark blue curve shows the expected impact of testing 90% of men who have greater than 20 partners per six months (Priority 1). The expected overall impact of all the interventions in Priority 1 is shown in green. The pink curve shows the expected impact if partner notification (Priority 2, such that 75% of regular partners and 10% of casual partners are notified and receive a syphilis test). The red curve shows the expected impact of effective implementation of both Priorities 1 and 2.

INTRODUCTION

Rates of infectious syphilis among gay men have increased significantly across the developed world since the late 1990's. These increases have occurred from the historically low levels of syphilis notifications recorded in the 1980's and early 1990's when fear of AIDS and the adaptive behaviour change associated with it saw significant declines in the rates of all sexually transmissible infections (STIs).

However, the advent of effective antiretroviral therapy for HIV from the mid 1990's and the reframing of HIV as a chronic manageable disease for populations with continuing access to therapy and effective health delivery has been paralleled by the emergence of a diametrically different epidemiological picture.

Among metropolitan populations of gay men, in Europe, America and Australia rates of all sexually transmissible infections have increased over the last decade on the back of a resurgent HIV epidemic. Programmatic responses have been implemented in a variety of locations but thus far there have been no reports of a significant, sustained decline in notifications of syphilis (or other STIs) among populations of gay men.

Syphilis in gay men creates a particular set of public health intervention imperatives given that syphilis can facilitate both the transmission and the acquisition of HIV in a population at high risk of both. Rises in syphilis incidence among populations of gay men have also been recorded in the absence of a corresponding increase in HIV incidence (NSW) which may be due to the frequency of serosorting among sexual subcultures of gay men and the frequency of oral sex, which is a practice much more likely to facilitate transmission of syphilis than the transmission of HIV.

Syphilis is most infectious through sexual contact during the primary or secondary stages of the disease and individuals may remain infectious for up to two years. Condoms offer some protection against syphilis, though this depends on factors such as the location of the primary syphilis lesions (chancres) from which infection is spread.

Early diagnosis is essential both to link patients to effective treatment and to prevent the spread of infection. This is particularly the case in areas with outbreaks of syphilis and among individuals who may, because of sexual behaviour or HIV status, have atypical disease presentations. Left undetected/untreated syphilis can result in significant morbidity and eventually, death. In most cases, syphilis is responsive to effective antibiotic treatment in its early stages.

TARGET DEMOGRAPHIC

As is the case in comparable international settings, syphilis among Australian gay men has often been reported in association with highly sexually active subcultures of gay men characterised by significant rates of partner change, unprotected anal intercourse with casual partners or with HIV-positive partners, insertive oral sex with casual partners and the use of recreational and injecting drugs. Syphilis is not however confined to any particular sub-group and can affect sexually active gay men of diverse characteristics throughout the population.

Enhanced surveillance conducted in inner Sydney since 2006 shows a consistent pattern of 50%-55% of all infectious syphilis notifications occurring in HIV positive gay men. Similar proportions of HIV positive gay men presenting with syphilis have been reported from a wide variety of metropolitan locations in Europe and North America.

Syphilis also manifests outside gay populations. In 2008, Aboriginal or Torres Strait Islander identity was reported in 183 of the 1,298 infectious syphilis cases notified in Australia. While there has been some success in reducing the number of Indigenous cases in Queensland and NSW in recent years (in marked contrast to the situation with gay men) infectious syphilis continues to occur among Indigenous Australians at a much higher population rate than that which applies in the non-Indigenous population. Another significant point of difference is that while 95% of non-Indigenous cases occur in men some 45”% of the Aboriginal and Torres Strait Islander cases notified in 2008 were in women.

A population-specific, national plan approach may have considerable benefit in the response to syphilis and other STIs in Aboriginal and Torres Strait Islander communities and jurisdictions are encouraged to identify priority population linkage opportunities in implementing the NGMSAP.

GOAL AND TARGETS

Goal

- To achieve a sustained reduction in the incidence of infectious syphilis in Australian gay and homosexually active men by 2013.

Targets

- At least 90% of highly sexually active gay men (>20 partners per 6 months) are tested for syphilis/HIV at a minimum of once every 6 months by 2011.
- At least 90% of sexually active HIV positive gay men are being routinely tested for syphilis with quarterly HIV monitoring by 2011.
- Dual syphilis/HIV testing is routine when undiagnosed gay men present for testing by 2011.
- Reduce the proportion of gay men who have never tested for STIs by 5% by 2011.
- Increase the number of sexual contacts tested and treated by 2011.

PRIORITIES

Screening/Testing

Modelling/Acceptability

The modelling shows that increasing the frequency of testing men who are highly sexually active is likely to be the most effective intervention, with the potential to completely mitigate the epidemic within 10 years. In particular, sexually active HIV positive men, who represent around half of all syphilis diagnoses in gay men, should be tested for syphilis in conjunction with quarterly HIV monitoring. Additionally, encouraging men who normally do not get tested, for syphilis, to do so, will be highly beneficial in terms of the resulting impact on syphilis prevalence and the prevention of future syphilis-related morbidity.

Mass synchronised testing for syphilis was not well received by the participants of social research focus groups but increasing the number of tests per man each year elicited a more favourable response.

One of the main problems identified by respondents around STI testing appears to be the amount of time currently involved in being tested. In the survey, when asked about current impediments to being tested for STIs, most respondents raised the issue of finding the time to do it and nearly half indicated that getting an appointment to see a doctor was an impediment.

Many HIV positive respondents assumed that syphilis testing was already occurring as part of their ongoing health monitoring, and as such, did not see it as a potential inconvenience. Men were prepared to commit to increased testing providing it could be made more easily accessible and less reliant on doctors with associated costs and time considerations. The possibility of a take-home rapid test was very popular.

Overall, increasing the frequency of syphilis testing in highly sexually active gay men emerged as a clear priority for the NGMSAP as it is likely to be both effective in mitigating the epidemic and acceptable to the gay community. In addition, ongoing screening for syphilis should be routine with HIV management and testing (as opt-out strategies) with sexually-active HIV-infected men tested for syphilis during routine check-ups.

Actions

In order to achieve increased testing rates in the target demographic a number of actions need to occur.

1. *Revision of clinical guidelines for STI testing among gay men*

The '*Sexually Transmitted Infection Testing Guidelines For Men Who Have Sex With Men'* developed by the STIs in Gay Men Action Group (STIGMA) and endorsed by the Australasian Chapter of Sexual Health Medicine of the Royal Australasian College of Physicians, the Royal Australian College of General Practitioners and the Australian HIV Management Guidelines, titled *HIV Management: a guide for clinical care* will also need to reflect NGMSAP guidelines for syphilis testing frequency among sexually active HIV positive gay men. Revision of current clinical guidelines for HIV & STI testing among gay men will be needed to ensure consistency with the NGMSAP.

Action 1: Current clinical guidelines for HIV management and HIV & STI testing among gay men should be revised to ensure consistency with the NGMSAP.

2. Review of clinical procedures and the development of new systems in clinics

General practices and sexual health services will also need to review procedures as a precursor to systematising syphilis screening in conjunction with regular HIV monitoring for sexually active HIV positive gay men: an example of innovative procedural development in this area has been the trialling of a system to pre-check syphilis serology ordering on pathology forms used in HIV monitoring consultations at the Melbourne Sexual Health Clinic.

While incorporating syphilis testing into regular HIV monitoring should be conceived of as an 'opt-out' strategy, it will require sensitive assessment of the current syphilis exposure risks of individual patients to avoid unnecessary testing and an automatic association of syphilis risk with all HIV positive gay men.

Strategies may include:

- Pre-consultation questionnaires to identify highly sexually active men
- Computer-based pre-consultation questionnaires linked to clinic systems to create pop-ups for clinician during consultation to recommend syphilis testing.
- Clinic-run or website-based SMS or email reminder systems to re-book for testing consultations

Incorporating syphilis testing into routine HIV monitoring will also require review/ development of new guidelines within HIV specialist clinics. Any additional costs/payments arising from syphilis testing in conjunction with routine HIV monitoring within specialist HIV clinics could act as a barrier to implementation and establishing clarity in this area will be an essential precursor to successful service adaptation.

Specific attention should be given to ensuring that clinicians/practices less familiar with syphilis case presentation receive appropriate information and support.

Action 2: All public sexual health clinics and relevant private providers should review current syphilis testing services in order to identify and reduce barriers to more frequent testing,

Action 3: Clinics should review/develop procedures aimed at identifying highly sexually active HIV negative men (men who have more than 20 partners in six months) in order to ensure that they are tested in accordance with the recommendation.

3. Expanding Access to Syphilis Testing Services

A key theme emerging from the Phase A survey was the difficulty in finding time to present for STI testing, and in getting appointments for testing. Clinic hours were perceived to be inconvenient and the turnaround time for testing results too long.

Within established medical services, consideration should be given to improving access to syphilis testing through the enhancement of existing services and the development of new services. Examples

could include expanding opening hours of public and private clinics and the provision of specialist gay men's clinics which could include mobile or outreach services. New rapid diagnostic tests and technologies may facilitate testing of high-risk individuals, particularly in outreach settings.

Urgent consideration should be given to addressing policy and regulatory barriers that might impede trialling and introducing these approaches where appropriate. Consideration should also be given to developing innovative, patient-centred pathology ordering procedures that will facilitate higher rates of testing and reduce burdens on clinicians. Examples may include providing patients with pre-signed pathology forms to enable re-testing without additional clinic visits.

Action 4: Regulatory barriers to STI testing should be investigated and overcome

Action 5: Jurisdictions should review clinic hours and consider new service models, including greater use of practice nurses.

Action 6: A working group should be established to trial or investigate use of rapid syphilis tests & develop guidelines for use of rapid tests. Hard to reach men should be a particular focus for increased testing initiatives.

PRIORITIES (cont'd)

Partner Notification

Modelling/Acceptability

Modelling shows that partner notification and testing is likely to be a highly efficient intervention that has a moderate impact on the syphilis epidemic. From the acceptability studies men mostly expressed a desire to be able to pass on information about STIs to their sexual partners, although they did not necessarily expect this to be reciprocated. The anonymity of many sexual encounters adds complexity to the issue.

Overall, most respondents wanted to 'do the right thing' by their sexual partners, and the stronger the relationship with the man in question, the higher the likelihood that they would be notified if he had been put at risk. Where partners are known, many men felt there was a code of ethics which made it appropriate to tell.

Given this desire to pass on information about STIs and the efficient impact that partner notification and testing has on the syphilis epidemic attempts to increase the notifying and testing partners of infected men could have a large impact on the epidemic.

Actions

In order to achieve increased partner notification rates in the target demographic easier ways for notifying sexual partners discreetly should be created.

Mechanisms for partner notification should consider patient-led, clinician-led, and centralised notification models that use a variety of means and technologies.

Services should be client-centred, confidential, voluntary, accessible and evidence-based.

The acceptability data strongly suggests that men would prefer patient initiated notification methods but these would need to be supported by and linked into robust clinician-led contact tracing programs.

STI contact tracing is currently conducted in a variety of ways across the Australian public health sector. It may be undertaken by counsellors, doctors, nurses, public health officers or other health workers. While approaches vary across jurisdictions the *Australasian Contact Tracing Manual,* produced by the Australasian Society for HIV Medicine, informs practice and delivery of service.

Action 7: Internet-based patient-led and/or clinician led partner notification/contact tracing systems should be incorporated into clinical practice

Action 8: Health promotion messages to gay men should specifically focus on improving partner notification rates

SUPPORTING PRIORITIES

Chemoprophylaxis

Modelling and acceptability

The impact of this type of intervention was investigated by varying the proportion of the population taking chemoprophylaxis for a time period of 6 months, 12 months, and indefinitely. Men taking chemoprophylaxis were assumed to have a 70% decrease in the risk of acquiring syphilis.

The results of the modelling suggest that short or medium term interventions are expected to have a moderate impact. A large epidemiological impact can only be expected if use of chemoprophylaxis is ongoing.

Respondents were very enthusiastic about the concept of 'Doxycycline' being made available to at risk men to use prophylactically, in an attempt to reduce syphilis infections. Some men wondered about whether it would be possible to get men to adhere to treatment over a sustained period of time and targeting syphilis PREP campaigns around major gay celebratory events was suggested as an alternative strategy.

There is general agreement that the proposed *syphilis chemoprophylaxis* ('syphilaxis') trial should proceed as soon as is practical.

SUPPORTING PRIORITIES (cont'd)

Health promotion

Modelling and acceptability

Levels of knowledge about syphilis among the respondents were low in terms of symptoms, transmissibility, treatment and impact. Even men who had previously been infected with syphilis were unclear. There was considerable confusion around symptoms of syphilis among men in the focus groups. In the online survey, some clear examples of misinformation about the natural history of syphilis were provided.

Actions

In order to increase knowledge and maintain current high condom usage levels, health promotion remains critical. Gay educators in community organisations should continue their leading role in the development of health promotion materials and initiatives for gay men.

Condom use and number of sexual partners are also important concepts in education for gay men in assessing their level of risk and relative need for, and frequency of, testing.

The development of a nationally consistent approach to the marketing of information and key messages about syphilis to gay men is crucial to successful implementation of the Plan.

Action 9: A nationally consistent approach to the marketing of information and key messages about syphilis to gay men is to be developed.

Action 10: Health promotion should have a specific focus on ensuring that there is no erosion in current rates of condom use among gay men.

GOVERNANCE

Identifying the governance framework is a key component of the NGMSAP to ensure there is a coordinated approach to the broad range of activities conducted. A national committee and jurisdictional committees will be formed and will meet regularly to discuss progress towards the objectives, barriers and successes of the NGMSAP.

Action 11: Jurisdictional committees (JC) should be established to oversee process at State and Territory levels.

Action 12: A national steering committee (SC) should monitor progress & convene the annual NGMSAP review.

MONITORING AND EVALUATION PLAN

The Monitoring and Evaluation Plan has the following aims and objectives

Aims:

1. To quantify increased syphilis testing, contact tracing and knowledge about syphilis among gay men
2. To assess the acceptability and effectiveness of a program of syphilis prevention activities in gay men

Primary Objectives:

1. To evaluate the impact of the 'activities' on syphilis infection in gay men
2. To quantify increased syphilis testing among gay men
3. To quantify increased partner notification among gay men diagnosed with infectious syphilis
4. To assess the inputs, coverage, progress and outcomes of activities undertaken in the NGMSAP
5. To obtain endorsement of the Plan at a national and jurisdictional level
6. To assess change in syphilis knowledge and risk behaviour in gay men
7. To evaluate the acceptability of the NGMSAP activities on gay men and stakeholders

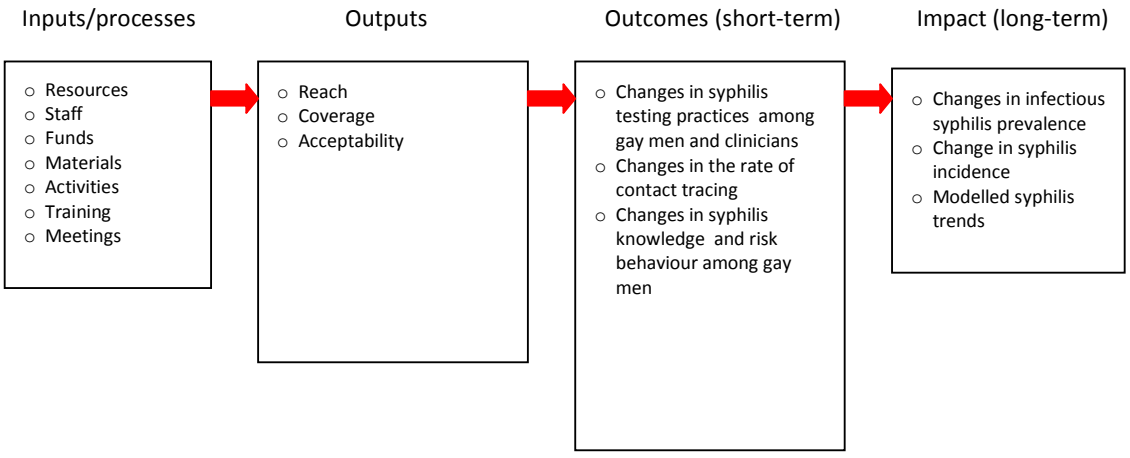
Evaluation Approach

Program evaluation levels

The NGMSAP will be evaluated at different levels of its program cycle including: *inputs* – which are the resources invested into a program; *processes* – which are the activities of a project; *outputs* – which are the immediate results produced by the activities; *outcomes* – which are the immediate or short-term results achieved by the program; and *program impact* – which relates to the long term results achieved by the program (usually 3-10 years). Specific examples related to the NGMSAP trial can be seen in Figure 1.

Figure 1: NGMSAP program levels

Note: Lists in each of the different levels in Figure 1 are not exhaustive, but provide examples only



Evaluation framework

Table 1 contains a framework for the NGMSAP evaluation. Three complementary evaluation approaches will be used; formative evaluation, process evaluation and impact evaluation. Multiple methodologies (qualitative and quantitative) will be utilised in the evaluation, but the findings will be considered together to provide an overall picture as no single data collection approach can supply all the information necessary to evaluate the NGMSAP.

Table 1: NGMSAP evaluation framework

Evaluation type	**Questions Answered**
Formative Evaluation Research (Determines Concept and Design)	How should the NGMSAP be carried out and what activities are needed?
Process Evaluation (Monitors Inputs and Outputs, Assesses Quality)	How well were the activities implemented, conducted and managed?
Impact Evaluation (Assesses Outcome and Impact)	What outcomes are observed? What do the outcomes mean? Does the program make a difference?

Formative Evaluation

In Phase A of the NGMSAP, quantitative and qualitative methods were used to provide important information to appropriately tailor the activities, including qualitative interviews with gay men, mathematical modelling and review of the epidemiology of syphilis in gay men. These methods identified the acceptability, likely impact and key facilitators and barriers to a range of interventions that could be used to reduce the incidence of syphilis.

Process Evaluation

The goal of the process evaluation is to determine how well and widely the activities of the NGMSAP are being implemented and the acceptability of these activities. NGMSAP Jurisdiction committees will conduct annual monitoring of the activities undertaken in their local jurisdiction before and during the NGMSAP. The information likely to be collected includes; funding, resources, staff, type of activity (health promotion, clinical etc), time period, target group, reach, coverage (awareness), outcomes and impact (if applicable).

Qualitative interviews which enquire about the acceptability, barriers and facilitators of the strategies undertaken during the NGMSAP should be considered during and/or on completion of the NGMSAP. Such assessments may be already be conducted as part of the evaluation of specific activities, but broader interviews which enquire about a range of interventions and their perceived differential impact may still be warranted.

Impact (or effectiveness) evaluation

One of the most difficult questions to answer in any evaluation is whether any observed impact can be directly attributed to the intervention. The most rigorous design to assess program effectiveness is the randomised controlled trial (RCT), but such a design is not feasible for a national program. Instead, two methods will be used to assess the impact of the NGMSAP:

(i) a before and after evaluation design will be employed where key outcome and impact indicators are collected before and during the NGMSAP to examine any changes that occurred;

(ii) mathematical modelling may be used to elucidate the factors that have given rise to the epidemic trends that are observed during the NGMSAP, calculate the portion of any change that can be attributed to particular factors and processes of the NGMSAP activities and to estimate the effectiveness, efficiency – and cost-effectiveness – of the NGMSAP activities.

Where possible, established research and surveillance programs which collate relevant data annually or periodically will be utilised for both forms of the evaluation. For example, risk behaviour data in gay men are routinely collected in Periodic Surveys conducted in all jurisdictions.

Some established programs may need to be enhanced in order to be able to capture the required data. For example, specific enhanced epidemiological data are collated by jurisdictions (HIV status, symptoms) but not collated as part of the national notification surveillance systems. Also a national network of 24 sexual health services currently provides information related to chlamydia, but not syphilis. The need for additional research to support NGMSAP objectives should be kept under review.

All data sources should provide baseline data in order for the before-and–after assessment and modelling to be conducted.

Examples of the data required and possible data sources are detailed below:

1. Syphilis re-testing rates in gay men - estimates should be collated from a variety of data sources:
    a. Testing conducted by high case load GPs; collated from pathology providers where possible;
    b. Testing conducted as sexual health services; collated from sexual health services participating in a national surveillance network;
    c. Self-reported testing rates; captured annually in the Gay Community Periodic Surveys
2. Risk behaviour in gay men – captured annually in the Gay Community Periodic Surveys
3. Syphilis knowledge – added to existing surveys such as Periodic and Futures, or designated research conducted before and after the NGMSAP
4. Incidence of syphilis in gay men –captured through notification data
5. Prevalence of infectious syphilis in gay men– measured throughout collation of routine clinical data from MSM attending sexual health services in a national surveillance network

In addition to syphilis, consideration should also be given to collating data on other STIs (chlamydia, gonorrhoea and HIV) as it is likely that many activities will have an impact on these diseases too.

Action 13: ***Committees responsible for syphilis surveillance, Periodic Surveys and other relevant studies should ensure that the appropriate jurisdictional and national data are being collected to support NGMSAP monitoring and evaluation.***

Chi-squared tests will be used to determine changes in the proportion of self-reported behaviours between survey time-points. Potential confounders such as (age, HIV status, casual sex partners in the last month) may need to be controlled for in the analysis

Evaluation Indicators

Selecting appropriate indicators is a critical step in designing and carrying out an evaluation. The choice of indicators for this evaluation required careful thought and consideration of both theoretical and practical elements. Ideally indicators should be valid, reliable, specific, sensitive, operational, affordable and feasible. The indicators which have been selected will be expressed as numbers (quantitative) or descriptive words (qualitative). Table 2 in Appendix 2 present all the indicators relevant to the seven NGMSAP primary objectives and secondary objectives. For each of the indicators, the methods that may be undertaken for its measurement, data sources and possible enhancements required are described. Table 2 in also relates the indicator to the different level of program evaluation which helps to identify opportunities for triangulating data. All indicators will be disaggregated by age group and jurisdiction.

Coordination and data collation

The Steering Committee will need to work closely with agencies responsible for data collection to ensure that data essential to the evaluation and monitoring of the Plan are captured in a coordinated manner.

Action 14: The SC should ensure that the appropriate jurisdictional and national data is being collected to inform the NGMSAP Monitoring & Evaluation Plan

Evaluation schedule

The NGMSAP will span from 2010 to 2013, to align with the National STI Strategy 2009-2013. During the four year period, data collection from routine data sources will occur at the usual timings, as shown in red. Other data collections occurring in response to the evaluation of NGMSAP are shown in green.

Table 3: Evaluation schedule

	2009				2010				2011				2012				2013				2014	
Quarter	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2
Baseline period																						
During period																						
NGMSAP activities																						
Formative evaluation																						
Periodic Surveys																						
SHS Network																						
Passive surveillance																						
Mathematical Modelling																						
Interviews with gay men and stakeholders*																						

SHS=Sexual Health Service

APPENDIX 1: Actions

Table 1: NGMSAP actions recommended

Issue/Priority	Actions	Indicative date	Lead
Screening/testing	1. Current clinical guidelines for HIV & STI testing among gay men should be revised in each jurisdiction to ensure consistency with the NGMSAP	31 March 2010	JC College/Chapter of Sexual Health Medicine STIGMA
	2. All public sexual health clinics and relevant private providers should review current syphilis testing services in order to identify and reduce barriers to more frequent testing	31 March 2010	JC College/Chapter of Sexual Health Medicine STIGMA
	3. Clinics should review/develop procedures aimed at identifying highly sexually active HIV negative men (men who have more than 20 partners in six months) in order to ensure that they are tested in accordance with the recommendation**.**	31 March 2010	JC College/Chapter, STIGMA
	4. Regulatory barriers to STI testing should be investigated and overcome	31 March 2010	JC
	5. Jurisdictions should review clinic hours and consider new service models	31 March 2010	JC Chapter ASHM
	6. A working group should be established to trial or investigate use of rapid syphilis tests & develop guidelines for use of rapid tests. Hard to reach men should be a particular focus for increased testing initiatives.	31 March 2010	ASHM JC AFAO

Partner Notification	7. Internet-based patient-led and/or clinician led contact tracing systems should be incorporated into clinical practice	31 March 2010	ASHM, STIGMA/Chapter JC AFAO
Health promotion	8. Health promotion messages to gay men should specifically focus on improving partner notification rates.	31 March 2010	AFAO JC
	9. A nationally consistent approach to the marketing of information and key messages about syphilis, to gay men, is to be developed.	31 March 2010	AFAO JC
	10. Health promotion should have a specific focus on sustaining current rates of condom use in gay men.	Ongoing	AFAO JC
Governance	11. Jurisdictional committees (JC) should be established to oversee process at State and Territory levels.	31 March 2010	States and Territories
	12. A national steering committee (SC) should be established to monitor progress & convene annual NGMSAP review process	31 March 2010	BBVSS/NSW Health
Monitoring and Evaluation	13. Committees responsible for syphilis surveillance, Periodic Surveys and other relevant studies should ensure that the appropriate jurisdictional and national data are being collected to support NGMSAP monitoring and evaluation.	31 March 2010	JC National HIV/STI/BBV surveillance committee, ACCESS coordinating committee, Periodic Survey committees
	14. The SC should ensure that the appropriate jurisdictional and national data is being collected to inform the NGMSAP Monitoring & Evaluation Plan	31 March 2010	SC NCHECR, JC AFAO.

APPENDIX 2: Monitoring and Evaluation Plan Framework

Table 2: NGMSAP: Monitoring and Evaluation Plan Framework

Primary objective	Secondary objective	Indicator type	Indicator/s	Data collection	Any enhancements required
1. To evaluate the impact of the 'activities' on syphilis infection in gay men	1.1 To evaluate the impact of the 'activities' on syphilis diagnoses in gay men	Impact	1. 1 Number of notifications of infectious syphilis in gay men	National and jurisdictional passive surveillance	Currently only 'MSM' is collated at a national level. Consideration should be give to collating other relevant local enhanced epidemiological data such as HIV status, symptoms and reason for test (including contact of a syphilis case)
	1.2 To evaluate the impact of the 'activities' on syphilis prevalence and incidence in gay men	Impact	1.2 Syphilis positivity in gay men	Sexual health service (SHS) network	Currently only set up for chlamydia monitoring. Consideration should be given to collating data on other STIs (syphilis, HIV and gonorrhoea), HIV status, number of sexual partners, symptoms and reason for test i.e contact of a case)
		Impact	1.3 Modelled syphilis epidemic trends in gay men	Mathematical modelling	New outcome and impact data from NGMSAP activities needs to be included in the model. Some additional quantitative analyses may also be conducted
2.To quantify increased syphilis testing among gay men	2.1 To quantify increased syphilis testing in sexually-active HIV-infected men during routine check-ups	Outcome	2.1 The % of sexually-active HIV-infected men undergoing 3 or 4+ syphilis tests in a year	SHS network	As above
				Laboratory data	Brief risk behaviour and syphilis testing results among gay men attending three high case load GPs and two sexual heath services are currently collated in Victoria. These data are linked with viral load (to determine HIV status) and an identifier allows for assessment of repeat testing. Consideration should be given to establishing a similar system in other jurisdictions
				Periodic Surveys	
	2.2 To quantify increased syphilis testing ever time sexually-active HIV-negative men are tested for HIV	Outcome	2.2 The % of sexually-active HIV-negative men tested for HIV who are also tested for syphilis	SHS network	As above
				Laboratory data	As above
				Periodic Surveys	

Table 2 cont: NGMSAP: Monitoring and Evaluation Plan Framework

Primary objective	Secondary objective	Indicator type	Indicator/s	Data collection	Any enhancements required
2 cont.To quantify increased syphilis testing among gay men	2.3 To quantify increased six-monthly syphilis testing in all sexually active gay men	Outcome	2.3 The % of sexually-active gay men undergoing 2+ syphilis tests in a year	SHS Network	As above
				Laboratory data	As above
				Periodic Surveys	
	2.4 To quantify increased six-monthly syphilis testing in gay men with 20 or more partners in the last 6 months	Outcome	2.4 The % of gay men with 20+ partners in the last 6 months undergoing 2+ syphilis tests in a year	SHS Network	As above
				Periodic Surveys	Consideration should be given to modifying the partner number questions in all jurisdictions to capture 20+. Currently the categories are: 0,1, 2-5, 6-10, 11-50, >50.
	2.5 To reduce the % of sexually active gay men who have never previously tested for syphilis	Outcome	2.5 The % of sexually active gay men who have never previously tested for syphilis	Periodic Surveys	Consideration should be given to adding a new question to the Periodic Surveys in all jurisdictions to capture 'never tested'. The current surveys only focus on testing in the past 12 months.
	2.6 To increase community-based syphilis testing	Outcome	2.6 The number of syphilis tests conducted outside clinical settings		Jurisdictional questionnaire*
3.To quantify increased partner notification among gay men diagnosed with infectious syphilis	3.1 To quantify increased partner notification among gay men diagnosed with infectious syphilis	Outcome	3.1 The number and % of infectious syphilis cases in gay men where contact tracing was undertaken	Jurisdictional health department contact tracing outcome data	
	3.2 To quantify use of web-based strategies	Process	3.2 The number of hits on specialised contact tracing websites and messages sent		Jurisdictional questionnaire
	3.3 To quantify the number of gay men presenting as a contact of an infectious syphilis case.	Outcome	3.3 The number of gay men seeking testing for syphilis due to being a contact of a syphilis case	SHS Network	As above

Table 2 cont: NGMSAP: Monitoring and Evaluation Plan Framework

Primary objective	Secondary objective	Indicator type	Indicator/s	Data collection	Any enhancements required
4. To assess the coverage, progress and impact of activities undertaken in the NGMSAP	4.1 To support implementation of the syphilis chemoprophylaxis trial by July 2010	Process	4.1 The number of participants enrolled in the trial by July 2010		Jurisdictional questionnaire
	4.2 To describe all the activities being conducted	Process	4.2 The type, time period, target group of the activity, resources uses, workforce		Jurisdictional questionnaire
	4.3 To measure the reach of health promotion activities	Process	4.3 The % of gay men that reported they saw syphilis-related campaign material	Periodic surveys	The relevant materials need to be submitted to the Periodic teams by December each year
	4.4 To measure the outcome and impact of activities being conducted	Outcome, impact	4.4 The evaluation findings from organisations running syphilis campaigns.		Jurisdictional questionnaire
5.To obtain endorsement of the Plan at a national and jurisdictional level	5.1 To obtain endorsement of the Plan by the BBVSS committee**	Process	NA	NA	
	5.2 To obtain endorsement of the testing recommendations in the NMGSAP by RACP, ACSHM	Process	5.2 Evidence of NGMSAP recommendations in 'MSM testing guidelines'	'MSM testing guidelines'	
	5.3 To assess the response to the Plan at the jurisdictional level	Process	5.3 Description of the activities undertaken in response to Action Plan vs existing or planned projects		Jurisdictional questionnaire

Table 2 cont: NGMSAP: Monitoring and Evaluation Plan Framework

Primary objective	Secondary objective	Indicator type	Indicator/s	Data collection	Any enhancements required
6.To assess changes in syphilis knowledge and risk behaviour in gay men	6.1 To assess changes in syphilis knowledge	Outcome	6.1 % of gay men reporting high levels of syphilis knowledge	Add to existing surveys or conduct dedicated studies	Possible questions: symptoms; groups most affected by syphilis; how to find out if you have syphilis; health consequences of untreated syphilis; and the relationship between syphilis and HIV acquisition and transmission
	6.2 To assess changes in sexual behaviour in gay men	Outcome	6.2 The % of men reporting condom use with casual partners (and other sexual behaviour data)	Periodic surveys	
7.To evaluate the barriers and acceptability of the NGMSAP and it's activities among gay men and stakeholders	7.1 To assess the acceptability of the 'activities' among gay men and stakeholders	Process	7.1 Barriers and acceptability of the 'activities' targeting gay men		Interviews with gay men and stakeholders (including health care providers) during and/or at the end of the NGMSAP should be considered.
	7.2 To assess the acceptability of the NGMSAP process among stakeholders	Process	7.2 Acceptability and effectiveness of the NGMSAP process		Interviews with stakeholders at the conclusion of the NGMSAP should be considered.

*conducted by relevant stakeholders (educators, health dept, researchers) prior to the annual NMGSAP meetings

** Blood Borne Viruses and Sexually Transmissible Infections Sub-Committee (BBVSS) of the Australian Population Health Development Principal Committee (APHDPC)