Breaking the silence: Responding to the STI epidemic in the Pacific

Prepared by the STI Regional Working Group, January- June 2010

Foreword

To ensure that national and regional programmes are equipped to address the high prevalence of sexually transmitted infections, the Sexually Transmitted Infections Working Group for the Pacific (STIWG) was established in late 2006. The STIWG is a technical working group comprised of representatives from the Secretariat of the Pacific Community (SPC), World Health Organization (WHO), United Nations Population Fund (UNFPA), U.S. Centers for Disease Control and Prevention (CDC), United Nations Children's Fund (UNICEF) and Oceania Society for Sexual Health and HIV Medicine (OSSHHM).

The recommendations contained herein are the result of a consensus of representatives from the STIWG.

This document is intended as a policy guideline for public health staff, STI program managers, laboratory and clinical staff.

This document should be read in conjunction with the following documents:

1. Improving national sexually transmitted infections surveillance in Pacific Island countries and territories: Consensus document on sexually transmitted infections case definitions and minimum data set. STIWGP May 2008, http://www.spc.int/hiv/index.php?option=com_docman&task=cat_view&gid=126&Itemid=148 and
2. Comprehensive STI Case Management Guidelines

http://www.who.int/reproductive-health/publications/rtis/9789241593407/index/en/index.html

3. National BD screening and treatment Guidelines
4. National or regional (WHO/OSSHM/CDC) STI Treatment Guidelines

http://www.spc.int/hiv/index.php?option=com_docman&task=cat_view&gid=116&Itemid=148

http://www.who.int/hiv/pub/sti/en/STIGuidelines2003.pdf

5. Strategic Health Communication Guidelines

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Abbreviations

ANC	Antenatal Clinic
Epi-Tx	Epidemiological Treatment
EML	Essential Medicines List
GASP	Gonoccocal Antimicrobial Surveillance Programme
HIV	Human immunodeficiency virus
HRG	High risk groups
IEC	Information, Education, Communication
M&E	Monitoring and Evaluation
MSM	Men who have sex with men
PPTCT	Prevention Parent to child transmission
NAAT	Nucleic acid amplification tests
NGO	Non Government Organisation
OSSHHM	Oceania Society for Sexual Health and HIV Medicine
PICT	Pacific Island Countries and Territories
PHC	Primary health care
PNG	Papua New Guinea
RPR	Rapid Plasma Reagin
RTI	Reproductive Tract Infection
sDOT	Single dose direct observed treatment
SGS	Second Generation Surveillance
SHC	Strategic Health Communication
SPC	Secretariat of the Pacific Community
STI	Sexually transmitted infection
STIWG	STI Working Group
UNICEF	United Nations Children's' Fund
UNFPA	United Nations Population Fund
WHO	World Health Organisation

Introduction

On average, 1 in 4 sexually active young people in the Pacific has a sexually transmitted infection.

In some Pacific Island countries up to 40% of sexually active young people have a sexually transmitted infection.

With the exception of Papua New Guinea (PNG), the Pacific region continues to demonstrate very low prevalence of the human immunodeficiency virus (HIV) in the general population.[1] However, second generation surveillance (SGS) undertaken in the Pacific Island Countries and Territories (PICTs) in 2004/5 and 2008 have shown very high rates of sexually transmitted infections (STIs) among populations surveyed.

STIs which are known facilitators of the spread of HIV[2] are at epidemic levels in the Pacific region. To prevent the spread of HIV in the Pacific, urgent action is needed to control STI rate and change behaviours associated with transmission.

Untreated STIs are linked to infertility, miscarriage, stillbirth, neonatal pneumonia and conjunctivitis and also potentially life-threatening situations such as ectopic pregnancies, and congenital syphilis; causing individual suffering and a preventable burden on the limited health resources of this region.

The recommendations contained in this policy document aim to define priority interventions, to scale up chlamydia, gonorrhoea and syphilis control in PICTs. They are complementary to the Comprehensive STI Treatment Guidelines for symptomatic STI patients, guidelines for Chlamydia testing, national and regional STI Treatment Guidelines (WHO, OSSHHM), SHC guideline, HIV pre- and post-test counselling Policy and HIV continuum of care, as well as ongoing monitoring and surveillance activities within countries and between regional partners.

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[1] http:// www.spc.int/hiv/downloads/second-generation-surveillance-surveys/

[2] Grosskurth H., Mosha F, Todd J, et al. Impact of improved treatment of sexually transmitted diseases on HIV infection in rural Tanzania: randomised controlled trial. Lancet 1995; 346: 530-6

These recommendations are intended to link to and reinforce existing HIV and STI prevention measures and activities to achieve the objectives of the Pacific Regional Strategy on HIV and STIs 2009-2013 (PRSIP II):

1. To support national and regional efforts to prevent the spread and minimize the impact of HIV and other STIs on individuals, families and communities; and
2. To increase the early detection of HIV and other STIs to reduce further infections and facilitate early timely treatment

The goal of this strategy is also to strengthen local and regional health systems in a sustainable way.

Background

Chlamydia is a common STI worldwide, particularly among young people aged 15-25 years. Most people infected with chlamydia have no symptoms or complaints.

Chlamydia infections contribute to significant morbidity, particularly amongst women, impacting on pregnancy outcome and fertility. They also cause conjunctivitis and pneumonia in newborns. SGS surveys in 6 PICTs between 2004-5 confirmed that STIs and in particular chlamydia, are very common in the sexually active population. In the 2004-5 rounds of SGS, in 6 countries, 1618 pregnant women attending antenatal clinic (ANC) were tested for STIs. Eighteen percent of them were found positive for chlamydia; prevalence was significantly higher among women under 25 years old. Repeat SGS surveys in 2007 and 2008 showed an overall prevalence of chlamydia of 19%. Prevalence of syphilis and gonococcal infection, while much lower than chlamydia, were also at unacceptable levels in some PICTs. (Table 1)

Table 1: Reported Prevalence of STIs among asymptomatic antenatal women: SGS Surveys, 2005 -2008

	Fiji 2005	Samoa 2008*	FSM 2008	Vanuatu 2008	New Caledonia 2006	Cook Islands 2005	Tuvalu 2007	W&F 2006	Kiribati 2005	Tonga 2008	Solomon Islands 2008
Chlamydia	29.0	27.5	25.8	25.1	23.7	19.8	17.5	15.0	13.0	12.8	10.8
Gonorrhoea	1.7	1.3	1.6	3	7.9	2.2	0.9	4	0	1.2	1.3
Syphilis	2.6	0	0.8	5	3.3	1.2	1.7	1	2.1	0	3

* *Data from 2008 Samoa ANC surveys approved for use but not yet published*

In comparison, European, African and Asian countries have documented much lower chlamydia prevalence among antenatal women. Only PNG, at 26%, has rates comparable to those found in the other PICTs surveyed.

Table 2: Chlamydia Prevalence in Antenatal Women In Developed and Developing Countries, WHO 2001

	Italy	Thailand	Tanzania	Iceland	Jamaica	India	PNG
Chlamydia prevalence	2.7	5.7	6.0	8.0	12.2	17.0	26.0

The number of foetal deaths worldwide caused by syphilis and chlamydia rival those caused by parent to child transmission (PTCT) of HIV and yet they are treatable and preventable. Syphilis is an important cause of miscarriage, stillbirth and congenital syphilis. The latter may cause irreversible damage to cardiovascular and nervous system of the newborn infected child. Early diagnosis and treatment of pregnant women with syphilis infections will avoid many miscarriages, stillbirths and a considerable amount of morbidity in newborns.

Early diagnosis and treatment of women with gonorrhoea and chlamydia infections confined to the lower genital tract will reduce the likelihood of development of pelvic inflammatory disease, infertility, chronic pelvic pain, and ectopic pregnancy[3]. Concurrent treatment and counselling of partners will reduce the likelihood of re-infection, development of urethritis in men and possible spread of STI.

Current Strategy

The current strategy relies on a combination of syndromic management of symptomatic patients and laboratory diagnosis of STIs using various technologies. Since 2007, nucleic acid amplification testing (NAAT) for chlamydia and gonorrhoea has become available to the majority of PICTs, either in country or through referral. A rapid test for chlamydia is used in some PICTs. Gonorrhoea testing is also available using Gram stain and culture, although these tests have ceased in some PICTs since NAAT became available. The current recommended Syphilis testing algorithm is a combination of Rapid Plasma Reagin (RPR) (a non specific test) and a Treponema pallidum specific test and RPR titre, although the full algorithm is rarely used in practice, due to either shortage of reagents or laboratory technicians, and requesting clinicians being unfamiliar with the algorithm.

Currently it is recommended that, where testing is available, all antenatal women are screened for chlamydia, gonorrhoea, syphilis and HIV. All blood donors should be screened for HIV and syphilis. Patients treated syndromically for STI symptoms are

[3] David Magid, MD; John M. Douglas. Doxycycline Compared with Azythromycine for Treating Women with Genital Chlamydia trachomatis Infection. In:Annals Internal Medicine. 15 February 1996 ; Volume 124 Issue 4; Pages 389-399.

tested if facilities are available. In consistent application of these policies, along with poor inventory management and lack of human and financial resources at the laboratory level, has led to individual STI testing being unavailable to all people who should be eligible for testing.

The high volume of laboratory tests done on current recommended groups describe above results in limited capacity for STI testing to be offered to other populations, such as sexually active youth or other at risk groups.

To date, strategic health communication (SHC) also known as behaviour change communication has focused on HIV rather than sexual health and STI more broadly, with the result that knowledge of HIV transmission and prevention in PICTs is relatively high, but knowledge of other STI is more limited. There has also been limited success in translating knowledge into behaviour change for better sexual health overall.

The current strategy has built important foundations. However more needs to be done to have a significant impact to control the STI epidemic and prevent HIV in PICTs.

Recommendations for Enhanced STI Control

The Pacific Regional STI Working Group (STIWG) recommends that PICTs implement a comprehensive package of interventions for enhanced STI control. The specific objectives of this strategy are to:

1. **Reduce Chlamydia prevalence by 50% in antenatal women by 2013 from 2008 levels;**
2. **Eliminate neonatal consequences of parental STIs, including congenital syphilis; and**
3. **Reduce the long term consequences of STIs, including ectopic pregnancies, miscarriage and stillbirth.**

These objectives will be best met by building local and regional capacity, strengthening the health systems in a sustainable way and ensuring efficient use of resources. Most of

the recommendations are not new interventions, but represent an improvement, increase or refocusing of current interventions. The various components of the package are intended to work synergistically, but should be implemented in a phased approach, as the introductions of certain interventions are a prerequisite for others.

Recommendation 1: Targeted Strategic Health Communication (SHC) campaigns to increase awareness of high local rates of STIs (symptoms, long term consequences of asymptomatic infections, availability of testing and treatment), to promote safe sexual behaviours (condom use, partner reduction) and to increase health care seeking behavior.

Recommendation 2: Provide quality comprehensive syndromic management for symptomatic STIs.

Recommendation 3: Counselling, testing and treatment for asymptomatic STIs, including proactive screening for chlamydia, syphilis and HIV among vulnerable and most at risk groups.

Recommendation 4: Improved partner management.

Recommendation 5: Epidemiologic (presumptive) treatment for chlamydia in antenatal women and their partners in high burden PICTs.

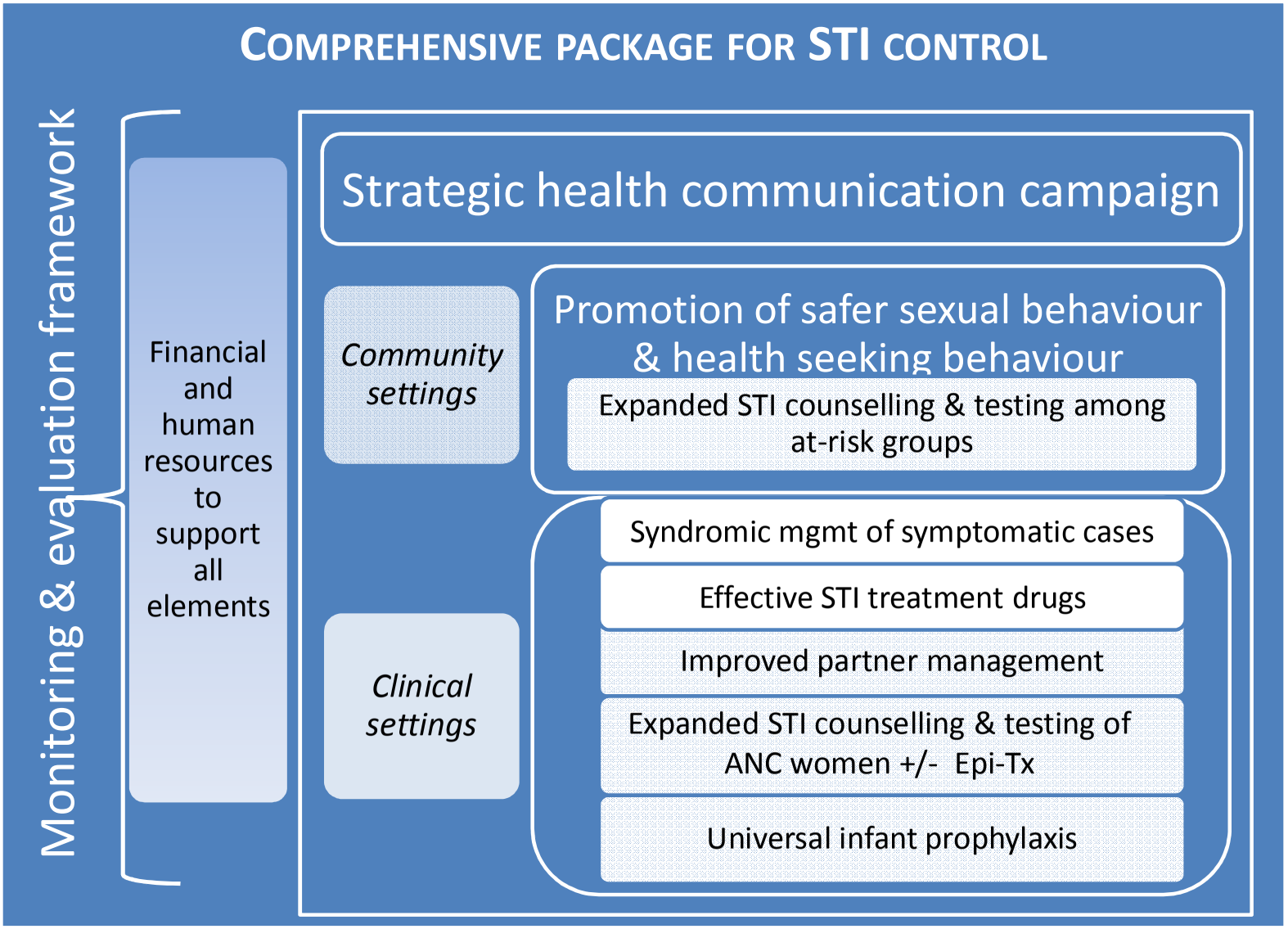
Recommendation 6: Prophylaxis for neonatal conjunctivitis at birth.

Recommendation 7: Effective drugs for the treatment of STIs, available free of charge and administered at all levels of the health care system.

Recommendation 8: Framework for monitoring prevalence and long term consequences of STI and evaluation of the impact of the STI strategy. This package for enhancing STI control must be tailored to the needs of each PICT, depending on the epidemiological situation and available resources. Ministries of Health in each PICT should ensure adequate financial and human resources are available to support all components of the enhanced package for a minimum of 3 years, in order to

achieve a significant, sustainable reduction in STI and prevent an increase in HIV in the region.

Figure 1: Comprehensive Package for STI Control



1. Strategic Health Communication (SHC)

Recommendation 1: Targeted Strategic Health Communication campaigns to increase awareness of high local rates of STIs (symptoms, long term consequences of asymptomatic infections, availability of testing and treatment), to promote safe sexual behaviours (condom use, partner reduction) and to increase health care seeking behavior.

Aimed at: general population, antenatal women & their partners, young people, high risk groups, health care workers

Time frame: mass media immediately building on existing HIV campaigns and

Adopting and maintaining healthy behaviour is one of the most fundamental challenges when confronting HIV and STI (and many other infectious and chronic diseases).

Currently information and applied behavioural interventions on STIs and HIV remain limited in communities as well as in health facilities in PICTs, due to shame and stigma felt by both health care providers and community around taboo subjects such as sexuality and diseases linked with reproduction and sex.

These activities urgently need strengthening to enable other interventions, such as access to quality care and secondary prevention to have a lasting impact on STI and HIV prevalence.

To obtain specific behavioural outcomes in health, a range of activities such as information, education and communication (IEC), community mobilization, behaviour change communication, consumer communication techniques and market research need to be combined. Effective SHC has been implemented throughout the world during the past decade, mainly for control of communicable diseases, including tuberculosis, leprosy, dengue and lymphatic filariasis.[4]

[4] http://www.emro.who.int/RBM/publications/combi-background.pdf

Public mobilisation would allow linkages to existing HIV/AIDS prevention messages with the following objectives:

- increase awareness and understanding about STI and the high rates of STI in PICTs which are often asymptomatic, like HIV, and their consequences if they remain untreated, including the increased risk for HIV transmission;
- enhance primary and secondary prevention to reduce STI transmission;
- promote testing and epidemiological treatment (see below); and
- promote diagnostic and health care seeking behaviour – recognition of STI symptoms and risk, and the need to seek services.

SHC requires development of a communication plan based on existing information, such as STI prevalence and behavioural information from SGS surveys, which may be complemented by rapid assessments to collect data on specific groups or issues. The plan will need to consider the appropriate themes (messages) and channels for communication as well as monitoring. Communication should be tailored to reach specific groups, such as antenatal women and their sexually active partners in preparation of the introduction of epidemiological treatment (see Recommendation 5).

Outreach and peer education should target sexually active youth and high risk groups to promote regular sexual health checkups, working towards targeted behaviour change using interpersonal communication.

The various components of the package must work synergistically and clinical strategies should be linked to other interventions, including strategic health communication to reduce risk behaviours and increase health care seeking behaviour, thereby reducing transmission of STI. This includes pre and post test counselling for all STI tests. Behaviour change is gradual, but it is essential for the success and sustainability of the STI and HIV control strategy.

2. Comprehensive Syndromic management of STI Symptoms

Recommendation 2: Provision of quality comprehensive syndromic management for symptomatic STIs

Aimed at: adolescent-, reproductive- and primary health care providers in public and private settings from primary health care setting to tertiary referral level.

Time frame: training for health care providers immediate implementation dependent on availability of effective STI drugs

Comprehensive STI management should be provided at all levels and throughout all sectors of the health care system, including Primary Health Care (PHC) Centres. Health care providers from private, public and NGO institutions should be trained to provide comprehensive syndromic diagnosis of STI and have the capacity and authority to dispense STI drugs at the point of care, for patients and their sex partners who are asymptomatic carriers. Private and NGO health care providers need to be included in comprehensive syndromic management training and implementation to ensure harmonization of best practice across all sectors

Refer to Comprehensive STI Management Guidelines .

3. Expanded Testing for asymptomatic Chlamydia and Other STI

Recommendation 3: Counselling, testing and treatment for asymptomatic STIs, including proactive screening for Chlamydia, syphilis and HIV among vulnerable and most at risk groups.

Aimed at: Pregnant women, high risk groups, and sexually active young people.

Time frame: Pregnant women immediately, high risk groups and sexually active young people.

Increasing laboratory Testing Capacity

As has been noted, PICT laboratories have limited capacity to increase the current level of STI testing. An approach recommended to strengthen the regional response to chlamydia control is to redirect molecular testing from the current combined approach

(chlamydia and gonorrhea) to a chlamydia-only policy. This would mean that up to 50% more patient samples could be tested with the same resources (technician time and cost). This shift should be combined with awareness raising and outreach to increase uptake of testing by youth and most at risk groups.

Gonorrhoea prevalence is lower (1-5%) in PICTs and is more likely than chlamydia to be symptomatic. Access to syndromic treatment will therefore be easier. It can be diagnosed via Gram Stain and culture. It is recommended that culture and antimicrobial sensitivity testing of gonorrhoea isolates should be available in PICTs, to monitor resistance of gonorrhoea strains and support future treatment recommendations. Countries are encouraged to participate in the WHO Gonoccocal Antimicrobial Surveillance Program (GASP), and benefit from the support provided through this program.

Currently syphilis screening and/or confirmatory testing is often not available. Financial resources should be identified to supply all laboratories with test kits (RPR, Determine Rapid tests and Treponema specific tests), inventory management needs to be improved and training provided to both clinicians and laboratory staff in the use and interpretation of the tests and treatment algorithm

Access to STI testing

a) STI testing for all pregnant women and their partners

Chlamydia

In PICTs where chlamydia infections are at relatively lower prevalence (below 15% from SGS data) in the antenatal population, chlamydia screening is recommended for all pregnant women at first antenatal visit. Single dose treatment should be available in the antenatal clinic for those testing positive and administered to the pregnant woman and her partner, directly observed where possible, with the appropriate counseling.

In PICTs with Chlamydia prevalence above 15%, the epidemiological treatment strategy will be required to reduce the burden of Chlamydia in the population and prevent neonatal complications and long term consequences in adults (see Recommendation 5).

Syphilis

As syphilis prevalence rates are still above 1 % in some PICTs, with evidence of ongoing transmission and cases of congenital syphilis reported, universal screening for syphilis is recommended for all pregnant women at first antenatal clinic visit, at PHC level. If possible, testing should be repeated in the last trimester of pregnancy. Rapid syphilis test and/or quantitative RPR test is recommended. Women who come to the health centre when in labour and who have not been screened during pregnancy should be offered screening before delivery (if feasible) or as soon as possible after delivery.

On-site treatment of all women testing positive for syphilis is necessary, as well as presumptive treatment of sexual partner(s) and counseling.

Post treatment monitoring should be undertaken to ensure treatment success, and when possible testing should be repeated before giving birth.

Gonorrhoea

Pregnant women with symptoms of gonorrhoea should be treated syndromically (including treatment for Chlamydia) and samples sent to the laboratory for confirmation of diagnosis (chlamydia, Gram, culture and sensitivity if possible). Partners should be treated presumptively and counseled.

b) <u>STI testing for High Risk Groups</u>

High risk groups (HRG), including men who have sex with men (MSM), seafarers, sex workers and males with high risk behaviour (e.g. multiple partners) are difficult to reach with routine clinical services and may be under-diagnosed for asymptomatic STIs. For sustained STI control in the general population, HRG should be encouraged to adopt health care seeking behaviour by expanding and promoting access to quality health

care. Behaviour change, with significantly increased condom use is simultaneously required to obtain sustained decreased STI prevalence in these populations.[5]

STI services need to be made accessible and acceptable for HRG in all PICTs. Barriers to care can be identified through outreach and peer educators. Collaboration and coordination with health care providers is needed to decrease these barriers. HRG can be reached through designated services, such as those provided by specialised NGOs, but mainstream clinical services need also to be provided in a user-friendly and non-stigmatizing manner. Clinics for seafarers, uniformed services, prisoners, and youth-friendly services or men's centers that combine recreational activities with educational and health services are functioning successfully in some PICTs.

Targeted interventions for HRG will remain a priority. High risk behaviour is often diagnosed on occasion of a visit to an STI clinic for symptomatic treatment. Here, as local resources permit, these people should be informed and screened for chlamydia, gonorrhoea, syphilis and HIV on a voluntary basis, with intensive counselling to assure follow up visits and behaviour change. Improving treatment seeking behaviour, ensuring quality treatment and counseling and risk behaviour change will lead to prevention of many other infections[6].

c) Chlamydia testing for Sexually Active Youth

As chlamydia rates are particularly high in young people, all those 25 years of age or under, who are sexually active, should be encouraged to access voluntary counselling and testing for chlamydia, where laboratory capacity is available for testing this group. (See previous section on HRG and high risk behaviour).

[5] Periodic presumptive treatment for STI: experiences from the field and recommendations for research WHO publication 2008 ISBN-978-92-4-159705-0

[6] Ainsworth M, Over M. Confronting AIDS: public priorities in a global epidemic. New York: Oxford university Press, 1997

4. Improved Partner Management

Recommendation 4: Improved partner management

Aimed at: sexual partners of all patients treated syndromically, epidemiologically or testing positive for an STI need presumptive DOTs..

Time frame: immediately.

Every effort should be made to ensure sexual partners receive presumptive treatment, so patients who receive treatment are not re-infected. This is particularly important for partners of pregnant women, where reinfection can have serious consequences for the outcome of the pregnancy.

Offering testing to sexual partners of people testing positive for STI is NOT recommended as this is not the best use of limited clinical and laboratory resources and may jeopardise the relationship between the partners.

Patient initiated partner notification should be promoted, including patient delivered treatment, information and condom supply.[7]

Provider initiated partner notification should only be undertaken at the request of the patient while respecting confidentiality. Important issues such as partner violence need to be considered.

[7] doi:10.1136/bmj.39079.460741.7C published 19 January 2007 Improved effectiveness of partner notification for patients with STI: systematic review. Sven Trelle, Ajin Shang, Linda Nartey, Jackie A Cassel, Nicola Low.

5. Epidemiological (Presumptive) Treatment for Chlamydia

Recommendation 5: Epidemiologic (presumptive) treatment for chlamydia in antenatal women and their partners in high burden PICTs.

Aimed at: pregnant women and their partners in PICTs with chlamydia prevalence greater than 15%

Time frame: after extensive planning and at least 6 months of implementation of SHC interventions and training of health care workers and uninterrupted supply of effective drugs secured and nurses/midwives authorized to dispense

Considering the high chlamydia rates documented in antenatal women, the STIWG recommends a population-based approach to address this infection. Epidemiological or presumptive treatment (Epi-Tx) is an aggressive short term strategy to rapidly reduce the chlamydia rate in particular populations.[8,9] **The introduction of Epi-Tx for all ANC women and their partners is a recommendation for all countries with chlamydia prevalence above 15 % in the ANC population.**

All pregnant women and their partner(s) should receive treatment for chlamydia at first antenatal visit. This treatment needs to be repeated at subsequent antenatal visit if the partner was not treated at first visit. Intensive counselling should be undertaken to ensure that the partner will present for treatment, or take the patient-delivered treatment. Preferred regiment is with oral single dose directly observed treatment (sDOT).

Epi-Tx for chlamydia provides treatment based on the increased risk of STI and does not depend on presence of symptoms or laboratory results. This increases the likelihood of treating couples with asymptomatic chlamydia and reduces the risk of neonatal complications of chlamydia infection. This strategy should also produce a decrease in STI in the population which must be sustained through other measures such as behavior

[8] T Wi et al. STI declines among sex workers and clients following outreach, one time presumptive treatment, and regular screening of sex workers in the Philippines. Sex Transm Infect 2006;82:386–391.
[9] P Mayaud, D Mabey. Approaches to the control of sexually transmitted infections in developing countries: old problems and modern challenges. Sex Transm Infect 2004;80:174-182.

change, including increased condom use and access for all to comprehensive STI services. Implementation of Epi-Tx will require locally developed guidelines and also a framework and mechanisms for monitoring.

Benefits of Epi-Tx of pregnant women and their partners, in combination with other measures:

- Significantly cheaper than testing and treating positives.
- No requirement for intensive pre/post test counseling, as SHC prepares the population.
- Ensures all chlamydia infections in antenatal women are treated, reducing long term consequences for women and improving pregnancy outcomes.
- Available to all women attending antenatal care including those who do not have access to testing facilities.
- Will free up laboratory capacity to expand testing to other population groups and will allow STI data on youth and HRG to be collected, including development of sentinel surveillance.
- Builds management capacity of clinicians and laboratory staff.
- Informs and educates the population about sexual and reproductive health issues and methods to prevent reproductive health problems and promotes long term reduction of STI.

Considerations

- Epidemiological treatment of antenatal women and their partners can only be considered IF it can be guaranteed for a number of years, nationwide.
- It requires detailed planning prior to implementation to ensure the new approach is communicated to all healthcare practitioners and non government organization (NGO) personnel affected by the changes, drug forecasting is in place, drug supply is secure and drugs can be dispensed at every level of the health service.
- Preparation of population through SHC, as there needs to be strong community awareness and acceptance of the need for the treatment.

- SHC needs to continue during and after the intervention to facilitate adoption of safer sexual behavior and sustain a reduction in chlamydia prevalence.
- Focus and action required to ensure partner compliance (sDOT)
- Treatment (single dose Azithromycin) to be dispensed at the point of care at all levels of the health system (this may require Standing Orders to allow nurses to dispense)
- Epi-Tx would result in a large number of people without chlamydia infection receiving treatment and a small number of gonorrhea infections not being identified and treated.
- Approximately 95% of gonorrhea infections will be effectively treated with 1g Azithromycin. The very small risk of increased gonorrhea resistance to this antibiotic should be monitored carefully through sensitivity testing or GASP. The sensitivity to the currently recommended first line treatment will not be affected.
- Monitoring of STI rate in antenatal women will not be possible from routine surveillance data, so annual surveys of limited number of antenatal women must be planned for in this population.

Epi-Tx for High Risk Groups

In PICTs where health care providers have access to HRG, and they have high rates of STI, Epi-Tx for Chlamydia and other STI may be considered. However this needs to be discussed at policy making level first. Intensive counseling and regular testing for all STI is strongly recommended at this moment for HRG as sufficient data are not available on these populations.

6. Universal prophylaxis for neonatal conjunctivitis

Recommendation 6: Prophylaxis for neonatal conjunctivitis should be administered at birth

Aimed at: Universal treatment for newborns in all PICTs

Time frame: Immediate implementation recommended.

In the absence of prophylaxis, 30-50% of infants born to mothers with untreated gonorrhea or chlamydia will develop a serious eye infection. This can lead to permanent eye damage and blindness.[10]

Providing prophylaxis for neonatal conjunctivitis to all newborns is a long standing recommendation of WHO which needs to be reinstituted and reinforced in PICTs with immediate effect to reduce avoidable morbidity.

7. Effective Drugs

Recommendation 7: Effective drugs for the treatment of STI, in line with appropriate National Guidelines, should be available free of charge and administered at all levels of the health care system

Aimed at: Ministries of Health, National Pharmacies

Time frame: Immediate

Local STI guidelines should reflect best practice comprehensive case management, including the most appropriate and effective drug regimens (where possible single dose regimens) in line with Regional Guidelines and local antimicrobial sensitivity patterns. All guidelines and training materials used in a country should be harmonised accordingly. If necessary, Standing Orders should give nurses authority to dispense STI drugs, and procedures should be in place to ensure drugs for the treatment of STI are available free of charge in all health care settings, including NGO reproductive health clinics.

The Essential Medicines List (EML) in each PICT should be reviewed to ensure it corresponds with the up-to-date local guidelines, and to ensure that these drugs can be dispensed at the primary health care level by nurses or midwives.

National STI programs need to actively involve pharmacists to ensure the appropriate quantification and coordination of drug requirements and distribution.

Gonococcal antibiotic sensitivity should be monitored through regular culturing and sensitivity testing, and EMLs and STI Treatment Guidelines need updating accordingly.

[10] www.who.int/mediacentre/factsheets/fs110/en

8. Monitoring and Evaluation

Recommendation 8: Framework for monitoring prevalence and long term consequences of STI and for evaluating the impact of the STI strategy.

Aimed at: Programme managers, Ministries of Health, PRSIP II partners, donors

Time frame: Immediate development and implementation to obtain baseline data before implementation of Epi-Tx. will permit measuring impact of STI control strategy.

It is important to develop and implement a monitoring strategy while developing the Epi-Tx strategy in order to obtain baseline and progress data. The monitoring framework will allow measurement on a longer term to determine whether the interventions are effective in achieving the short term and longer term objectives, whether the interventions need to be changed or whether there are unintended consequences. This Monitoring & Evaluation framework needs to be developed to cover the different components of the strategy and the overall framework should address the stated objectives.

1. **Reduce Chlamydia prevalence by 50% in antenatal women by 2013 compared with 2008 levels.**

Most PICTs undertook SGS surveys of antenatal women between 2006 and 2008 and have baseline chlamydia prevalence data. The impact of introducing the comprehensive package of interventions is intended to be a 50% reduction in chlamydia prevalence in the antenatal population by 2013. It is therefore necessary to monitor chlamydia prevalence in antenatal women in PICTs.

a) In PICTs which do not introduce Epi-Tx of antenatal women and their partners (in general with chlamydia prevalence in antenatal women of less than 15%),

chlamydia prevalence should be monitored through routine testing and reporting.[11]

b) In PICTs which introduce Epi-Tx of antenatal women and their partners, chlamydia prevalence should be monitored through annual surveys.

c) In all PICTs, testing for chlamydia (and other STI) should be expanded to reach young people and groups with risk behaviour. Routine testing data needs to be collected and reported to establish baseline prevalence. Once analysed, it can be used for policy decisions on STI management for these populations.

The chlamydia prevalence data, obtained either through routine testing or surveys (sentinel site sampling), need to be annually reviewed to inform decisions to scale up the interventions, introduce new interventions or scale down as appropriate. For instance, a threshold for phasing out Epi-Tx of chlamydia should be determined in each PICT. A benchmark of 10% prevalence or lower among ANC women is suggested by the STIWG as an appropriate target to cease epidemiologic treatment. Conversely, if there is no reduction in chlamydia rates, it may be appropriate to extend epidemiological treatment to other groups, depending on local capacity.

2. Eliminate neonatal consequences of parental STI, including congenital syphilis

PICTs need to begin or continue to collect data on the neonatal consequences of parental STI, including neonatal conjunctivitis and congenital syphilis, both through case reporting and testing where it is available. If the package of STI control measures is effective, in particular those aimed at reducing parental STIs, cases of congenital syphilis and other neonatal consequences of STI should decrease and eventually be eliminated.

3. Reduce the long term consequences of STI, including pelvic inflammatory disease, ectopic pregnancies, miscarriages and infertility

PICTs need to document data on cases of pelvic inflammatory disease, ectopic pregnancy, miscarriage/stillbirth and infertility. While there are many causes of these

[11] Improving national sexually transmitted infections surveillance in Pacific Island countries and territories: Consensus document on sexually transmitted infections case definitions and minimum data set Prepared by the Sexually Transmitted Infections Working Group for the Pacific May 2008

conditions, they are proxy measures of the long term consequences of STIs in the population. If the STI control measures are effective, there will be a gradual and measurable reduction in these conditions.

Resources and Planning

This package for enhancing STI control requires detailed country specific planning prior to implementation.

Training and information needs to prepare all relevant MOH and NGO personnel. Supervision is recommended to ensure quality of services.

The longer term, targetted SHC approach needs to be developed.

Adequate financial and human resources need to be made available, as well as a secure drug supply, to support all components of the enhanced package for a minimum of 3 years, in order to achieve a significant reduction in STI and contribute to prevention of HIV in the region.

STI Services for Specific Target Populations

Target population for increased services	Service required	Possible delivery areas
Whole population	Awareness of STIs – symptomatic and asymptomatic, long term consequences including neonatal; Prevention	country specific SHC interventions reaching sexually active population groups.
Pregnant women and their partners, sexually active youth, high risk groups	Availability of testing and treatment services (including Epi-Tx when appropriate)	PHC services, NGO's and private health care services; Targeted SHC interventions
Pregnant women and their partners in all PICTs	Epi-Tx at first ANC visit for chlamydia in PICTs with >15% prevalence Chlamydia screening and treatment (if testing positive) at first ANC visit in PICTs with <15% prevalence. Syphilis and HIV screening and treatment(if testing positive) at first visit; Counseling, condom, presumptive partner treatment (if pregnant women screening test is positive)	Public and private clinics managing ANC Promote involvement of men in ANC Optional: treatment of partners in linked PHC services, when male involvement in ANC is not accepted, ensuring further counseling on Epi-Tx.
People with symptoms of STIs	Access to syndromic management of STI at all PHC, risk assessment, counselling, condom promotion and distribution, provider initiated screening for HIV	PHC clinics, selected private doctors and NGO clinics, medical services in the work place, family planning/ gynaecology/reproductive health clinics, YFH services.
Sexually active youth and adolescents (15 – 29 years)	Adolescent-adapted-information on STIs, HIV, sexuality; chlamydia screening, counselling; treatment for STIs; condom	Youth friendly health(YFH) services; school HIV Program; high school/college health services; NGO clinics for out of school youth; selected private doctors
Sex workers & high risk men: men with multiple partners including clients and regular partners of sex workers, MSM	Improve access to services for comprehensive syndromic management and promote routine STI/HIV check-ups including periodic screening, counseling, provision of condom and lubricant, partner treatment.	Targetted SHC interventions; dedicated clinics (opening hours, clinicians, counselors) in and around 'hot spots', clinics developed for migrant workers, seafarers, taxi drivers, uniformed services; PHC centers with exceptionally well performing staff, NGO clinics, mobile clinics, satellite clinics, private doctors.
Spouses and regular partners of high risk men	Improve access and quality of services for syndromic management; improve access to screening for STI/HIV, counselling, condom promotion and distribution	PHC clinics, selected private doctors and NGO clinics, medical services of the work places, family planning/ gynaecology/reproductive health clinics
Non-pregnant women at low risk	Screening and treatment for STIs on request; counselling; condom promotion	PHC clinics, family planning/ gynaecology/ reproductive health clinics